WE TEST EVERYTHING — UNDER THE SUN

CC: Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date 8 May 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 427

REPORT ON FINE AGGREGATE

LAB NUMBER 905121-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 234

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 AM Date: 5/7/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Doless Bros. Sand (FM: 2.98)	-	1.5	5.4	16.7	34.9	57.2	84.0	98.2	99.2	OK	0.8	None	-	None
										ABSORPTION	0.85%			
Specifications:														
Par 8-2.02 8-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 5/14/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Laboratories

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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1426 N. MOSLEY AVE. PHONE HOBART 4-3846

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PRINCIPALS ARE MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

Date _____

Apps. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Project: _____

Location: _____

Sample taken by _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent ... sieve number (ASTM D75 & D58)								IMPURITIES: Organic Matter (ASTM C40); % Silt Passing #200 (ASTM C117); Clay Lumps, Shale (ASTM C142 C295 C123 AASHO T26); Unsound Particles (ASTM C88 C295 C131); Coal, Shale, Etc. (ASTM C123 C295 C142 C117)

CERTIFIED

We certify the above test was conducted by us in accordance with accepted testing methods and that this material specification requirements

Remarks: _____

WICHITA LABORATORIES

By _____

◀◀ WE TEST EVERYTHING UNDER THE SUN ▶▶▶

CC: 2 Lock Joint @ Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date May 4, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 425

REPORT ON COARSE AGGREGATE

LAB NUMBER 905051-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE
CHECK NO. 214

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:30 AM Date: 5/3/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.66)	-	74.5	98.0	98.3	98.4	98.5	98.6	98.9	99.0	-	1.0	None	None	None
										ABSORPTION		2.75%		
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
0-10	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

File:

Date

Agcr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time:

Date:

Car or sample number	GRADING, Percent — Sieve number — ASTM D75 & C136							IMPURITIES: Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T71	Unsound Particles ASTM C88 C123	Coal Sticks, Etc. ASTM C123 C123 C142

CERTIFIED
We hereby certify that tests were conducted by us in accordance with standard procedures and that this material complies with specification requirements.

Remarks:

WICHITA CHEMICAL AND TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @Colwich
2 Weller
1 Knoll
1 Hess

File: 1

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date May 7, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #426

REPORT ON FINE AGGREGATE

LAB NUMBER 905093-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 233

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp. From Co. Stockpile Time: 10:30 A.M Date: 5/4/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.03)	-	0.1	6.7	18.2	36.0	58.0	84.3	98.8	99.2	OK	0.8	None	-	None
										ABSORPTION		0.71%		
Specifications: Par B-2.02 B-4.05 (F.M 2.50-3.10) FM: ± 0.15	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specifications overall generally.

Remarks: Mortar Strength Tests Will Follow (About 5/14/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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CC:

Wichita Chemical and Testing Laboratories

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1429 N. MOSLEY AVE. PHONE HOBART 4-3942

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Agg. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent retained on sieve number — ASTM D75 & C136							IMPURITIES: Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T71	Unsound Particles ASTM C88 C89 C123 C131	Coal Sticks Etc. ASTM C123 C127

CERTIFIED

We certify the above tests were conducted by us in accordance with accepted procedures and that this material meets specifications.

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

By

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1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

CC: 2-Lock Joint & Colwich
2-Weller
1-Knoll
1-Hess
File: 1

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date 3 May 1956

Aggr. Report No. LJC # 424

LAB NUMBER 505028
(Refer to this Number)

FINE AGGREGATE

CHECK NO. 232

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137
Colwich, Kansas

Engineer: Black & Veatch

Project: 66" Water Transmission Lines

Location: Colwich, Kansas

Sample taken by: Lab. Insp. from Co. Stockpile Time: 11:00 A.M. Date: 5-2-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	% Ret #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
DOLESE BROS. SAND (F.M. 3.01)														
	-	0-8	5.4	17.8	35.9	58.0	85.1	98.3	99.6	OK	0.4	None	—	None
										Absorption: 0.82%				
SPECIFICATIONS: Par. B-2002, B-4.05 (F.M. 2.50-3.10)	-	-	0-5	—	20-40	—	70-88	92-98	—	Type 1	3.0	1.0	—	0.5
F.M. +/- 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material Meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 5-10-56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. PHILLIPS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Addr. Report No. _____ LAB NUMBER _____
(Refer to this Number)

REPORT ON _____ SAMPLE MARKED _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Cas or sample number	"CRADING" Percent ASSN TYP & CBR sieve number								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C123 C97 C131	ASTM C142 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

MCDUFFEE

WICHITA CHEMICAL & TESTING LABORATORIES

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CC: 2-Lock Joint @ Colwic
2-Weller
1-Knoll
1-Dolese
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date 30 April 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 422

REPORT ON FINE AGGREGATE

LAB NUMBER 904358 -a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmissions Lines

FINE AGGREGATE

Engineer: Black & Veatch, Cons Engrs.

Location: Colwich, Kansas

CHECK NO. 230

Sample taken by: Lab. Insp. from Co. Stockpile Time: 11:00 A.M. Date: 4-27-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	% Pet # 200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (F.M. 3.01)	—	0.7	5.6	17.7	35.8	58.0	85.2	98.0	99.5	O.K.	0.5	None	—	None
										Absorption 0.69 %				
SPECIFICATIONS: Par. B-6.02, B-4.05 (FM : 2.50-3.10)	—	—	0-5	—	20-40	—	70-88	92-98	—	Type 1	3.0	1.0	—	0.5
		F.M. ± 0.15												

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 5-4-56)
Yield Check Shows 145 lb, 10 oz/ Cu. Ft.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. PHILLIPS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agar Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by _____ Time: _____ Date: _____

Dot or sample number	CLADDING Percent _____ sieve number _____								IMPURITIES				
									Organic Matter	Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale, Etc.
									AASHO T21 ASTM C40	AASHO T27 ASTM C117	AASHO T112 ASTM C142	ASTM C123	ASTM C123

Remarks _____

WICHITA CHEMICAL & TESTING LABORATORIES

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CC: 2-Lock Joint @ Colwich
2-Weller
1-Knoll
1-Hess
File: 1

PERIODIC AGGREGATE CHECK

Date 30 April 1956

Aggr. Report No. LJC # 423

LAB NUMBER 904362-a
(Refer to this Number)

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE
CHECK NO. 231

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:30 A.M. Date: 4-30-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	% Ret # 200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros Sand (F.M. 305)														
	—	0.5	5.7	17.0	36.0	59.9	87.0	98.5	99.0	O.K.	1.0	None	—	None
										Absorption: 0.75 %				
SPECIFICATIONS: Par. B-2.02- B-4.05 (F.M. 2.50-3.10)														
	—	—	0-5	—	20-40	—	70-88	92-98	—	Type 1	3.0	1.0	—	0.5
			F.M. +/- 0.15											

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material Meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 5-9-56)
Yield Check Shows 145 lb, 10 oz/ Cu. Ft.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. PHILLIPS

WE TEST EVERYTHING

UNDER THE SUN

CC:

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
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File: 1

Date

Agg. Report No

LAB NUMBER

(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by Time Date

Car or Sample number	GRADING, Percent ___ sieve number ___ ASTM Designation ___									IMPURITIES				
										Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Lignite
										ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C235 C88 C123	ASTM C123

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colvic
2 Weller
1 Knoll
1 Hess

File: 1

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Date 27 April 1956

Aggr. Report No. 300 221

LAB NUMBER 90434-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

COARSE AGGREGATE CHECK
213

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:00 AM Date: 4/26/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM= 6.59)	-	66.5	98.0	98.7	98.7	98.8	98.9	98.9	99.0	-	1.0	None	None	No c
				CONTRACT EXTENSION						ABSORPTION	2.93%			
Specifications: Par B-2.03 B-4.05 (FM= 6.58)	0-5	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1162 STATE OF KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips
R. L. Phillips

Wichita Testing Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Cc:

Etc:

Date

Assr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or sample number	GRADING Percent ___ sieve number ___ ASTM D75 & Cisa								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Stocks, Etc.
									ASTM C40	ASTM C117	ASTM Clay AASHO T19	ASTM C235 C88 C123 C142	ASTM C123 C117

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this meets specifications requirements

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwic
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 26, 1956

Aggr. Report No. LJC # 420

LAB NUMBER 904322
(Refer to this Number)

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

SUPERIOR SAND FOR APPROVAL

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lock Joint @ Sand Plant Time: 4:00 PM Date: 4/25/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Superior Sand (FM: 2.95)	-	0.3	3.3	14.3	33.9	57.5	87.4	98.5	99.2	-	0.8	-	-	-
				CONTRACT EXTENSION										
Specifications: Par B-2.02	0-4.05	(FM: 2.50-3.10)												
	-	-	0-5	-	20-40	-	70-88	92-98	-	-	3.0	-	-	-
	FM: ±	0.15												

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED ENGINEER

Remarks: This sand has been approved for use by J. J. Knoll of Black & Veatch, Consulting Engrs.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

File:

Date _____

Agg. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Car or sample number	GRADING Percent ____ ASTM D75 & C136 sieve number							IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHTO T19	Unsound Particles ASTM C88 C295 C40 C87	Coal Shale, Etc. ASTM C123 C142 C40 C87

CERTIFIED
We certify the above test was completed by us in accordance with accepted procedure and that data reported meet specification requirements

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 26, 1956

Aggr. Report No. LJC # 419

LAB NUMBER 904304
(Refer to this Number)

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
SPECIAL SAND FROM MILES SAND PIT

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp From Miles Sand Pit Time: 4:30 PM Date: 4/24/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Miles Sand (FM: 3.42)	-	0.9	6.5	26.0	46.8	70.7	91.4	99.2	99.5	-	0.5	-	-	-
					CONTRACT EXTENSION									
Specifications: Par B-2.02	B-4.05 (FM: 2.50-3.10)													
	-	-	0-5	-	20-40	-	70-85	92-98	-	-	3.0	-	-	-
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material does not meet specification requirements.

JAMES E. MYERS LICENSED 1162

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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Analytical Chemists · Bacteriologists · Testing Engineers

Research on Manufacturing Problems

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4 4 We Test Everything

Under the Sun

CC:

File:

Date

Agr. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor

Project:

Engineer

Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ___ sieve number ___ ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19 C142	ASTM C88 C88 C88 C88	ASTM C123 C123 C123 C123

Remarks

CERTIFIED
We certify that the above tests were performed by us in accordance with accepted procedures and that the results represent the materials as received.
Vice President - Registered Engineer

Wichita Chemical & Testing Laboratories

By

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 26, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 419

REPORT ON FINE AGGREGATE

LAB NUMBER 904321-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #229

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:30 AM Date: 4/25/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.99)	-	6.3	5.3	16.9	35.7	58.2	85.3	97.7	99.4	OK	0.6	None	None	None
					CONTRACT EXTENSION					ABSORPTION	0.77%			
Specifications:														
Par 8-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that the material meets the requirements.

Remarks: Mortar Strength Tests Will Follow (About 5/4/56)

JAMES E. MYERS LICENSED ENGINEER 1162 KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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CC:

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Accr. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor:

Project:

Engineer:

Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent retained on sieve number — ASTM D15 & C136									IMPURITIES: Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C88 C88 C131	Coal & Lignite ASTM C123 C123 C123

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwic
2 Weller
1 Knoll
1 Hess
File: 1

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Date April 23, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 415

REPORT ON COARSE AGGREGATE

LAB NUMBER 904,267
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #211

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:30 AM Date: 4/19/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.56)	-	66.0	98.1	98.3	98.5	98.5	98.5	98.5	98.6	-	1.4	None	None	None
										ABSORPTION 3.01%				
				CONTRACT EXTENSION										
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
C-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0	
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

IMPURITIES				
Organic Matter	Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHTO T112	ASTM C123	ASTM C123 C29 C40 C117

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

CC: 2 Lock Joint @Colwich
2 Weller
1 Knoll
1 Hesse
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 23, 1956

Aggr. Report No. LJC # 434

LAB NUMBER 904213-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

FINE AGGREGATE CHECK # 226

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 AM Date: 4/18/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.00)	-	0.3	4.7	16.2	35.7	58.9	85.4	98.3	99.0	OK	1.0	None	-	None
										ABSORPTION 0.80%				
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.03 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-85	92-98	-	TypeI	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/25/56)

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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UNDER THE SUN

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent passing sieve number — ASTM D75 & C136								IMPURITIES: Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C295 C88 C131	ASTM C123 C136 C330

CERTIFIED

We certify the above test was conducted in accordance with accepted procedures and that this material complies requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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CC: 2 Lock Joint @ Colwich
2 Keller
1 Knoll
1 [illegible]
File: 1

Date April 23, 1956

Aggr. Report No. LJC # 416

LAB NUMBER 904233-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

FINE AGGREGATE CHECK #227

Contractor: ~~Lock Joint Pipe Co.~~
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

Sample taken by: ~~Lab. Insp. From Co. Stockpile~~ Time: ~~10:30 AM~~ Date: ~~4/20/56~~

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter (ASTM C40)	% Silt P200 (ASTM C117)	Clay Lumps, Shale (ASTM C142 AASHO T10)	Unsound Particles (ASTM C235 C88 C131)	Coal Sticks, Etc. (ASTM C123 C129 C227)
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.99)	-	0.6	5.0	16.4	34.7	57.7	86.2	98.3	99.4	OK	0.6	None	-	None
				CONTRACT EXTENSION								ABSORPTION	2.92%	
Specifications: Par B-2.02 [illegible] (FM: 2.50-4.10)	-	-	0-5	-	20-40	-	70-8[illegible]	92-[illegible]	-	Typel	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/30/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____ LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer _____ Location: _____

Sample taken by _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent ... sieve number								IMPURITIES				
	ASTM D75 & C136								Organic Matter	% Silt (P200)	Clay Lumps, Shale	Unsound Particles	Coal, Slicks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C88 C131	ASTM C123 C123 C142

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material ... specification requirements.

By _____

cc: _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
1 Keller
1 Knoll
1 Hess
File: 1

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Date April 24, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 418

REPORT ON COARSE AGGREGATE

LAB NUMBER 204300-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 212

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 12:30 PM Date: 4/24/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.49)	-	59.0	98.2	98.4	98.5	98.6	98.6	98.7	98.8	-	1.2	None	None	None
										ABSORPTION		2.85%		
CONTRACT EXTENSION														
Specifications: Per B-2.02 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co. Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips
R. L. Phillips

"WE TEST EVERYTHING" — "UNDER THE SUN"

cc:

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LICENSED PROFESSIONAL ENGINEERS

Date

Agg. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent — ASTM D75 & C136 — sieve number							IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal, Stick, Etc. ASTM

CERTIFIED
the quality of the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Keller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date April 24, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 417

REPORT ON FINE AGGREGATE

LAB NUMBER 904283
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #228

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 AM Date: 4/23/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.82)	-	0.8	4.8	15.0	30.9	52.4	81.2	97.1	99.1	OK	0.9	None	-	None
				CONTRACT EXTENSION						ABSORPTION 0.85%				
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-85	92-98	-	Type I 3.0		1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/30/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips
R. L. Phillips

4 4 WE TEST EVERYTHING

UNDER THE SUN

CC:

File:

Date

Aggr. Report No.

LAB NUMBER
(Refer to this Number)

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or sample number	GRADING, Percent ... sieve number (ASTM D75 & C136)								IMPURITIES				
									Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHTO T10	Unsound Particles ASTM C88 C123	Coal, Sticks, Etc. ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

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WICHITA 4, KANSAS

REPORT ON

PRINCIPAL AREA MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

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RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

CC: 2 Lock Joint @ Colwic
2 Waller
1 Knoll
1 Hess
File: 1

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date 17 April 1956

Aggr. Report No. LJC # 412

REPORT ON Fine Aggregate

LAB NUMBER 904178-a (Refer to this Number)

Contractor: Lock Joint Pipe Co. P.O. Box 137, Colwich, Kans

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK NO. 225

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. from Co. Stockpile Time: 10:30 A.M. Date: 4-16-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret	IMPURITIES				
	3/4#	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Doles Bros Concrete Sand (F.M. 2.93)														
	—	1.4	5.5	16.7	34.9	57.2	84.0	96.2	99.2	O.K.	0.8	None	—	None
										Absorption 0.75 %				
SPECIFICATIONS: Par 3-2.02-3-4.05(F.M. 2.50-3.10)	—	—	0-5	—	20-40	—	70-88	92-98	—	Type 1	3.0	1.0	—	0.5
	F.M. +/- 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

CONTRACT EXTENSION

Remarks: Mortar Strength Tests will follow: (About 4-25-56)
Yield Check Shows 145 lb. 12 cu/cu.ft.

JAMES E. WATERS LICENSED 162

WICHITA CHEMICAL & TESTING LABORATORIES

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RESEARCH ON MANUFACTURING PROBLEMS

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Date _____

Addr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Sample or Number	GRADING, Percent — Sieve Number — ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T112	Unsound Particles ASTM C289 C88 C127	Coal, Shale, Etc. ASTM C123 C123 C29 C207

CERTIFIED

We certify the above test was conducted or us in accordance with accepted procedures and that this material meets specification requirements.

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2Lock Joint @Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date 17 April 1956

Aggr. Report No. LJC # 413

LAB NUMBER 904198
(Refer to this Number)

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 127, Colwich, Kansas

Project: 65" Water Transmission Lines

COARSE AGGREGATE CHECK NO 210

Engineer: Black & Veatch,

Location: Colwich, Kansas

NO.

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:30 A.M. Date: 4-17-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	% Ret # 200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone: (F.M. 6.72)														
	----	85.5	97.6	97.7	97.8	97.8	98.1	98.2	98.4	---	1.6	None	None	Non
										Absorption 2.76 %				
SPECIFICATIONS:									CONTRACT EXTENSION					
Par. B-203- B-4.05 (FM 6.58)														
0-10 40-80 90-100	-	-	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
F.M. ± 0.15 93% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with applying procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Construction Co., Moline, Kansas; Producer

WICHITA CHEMICAL & TESTING LABORATORIES

By

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Assn. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent ... Sieve number ... ASTM D75 + C136								IMPURITIES				
									Organic Matter	% Silt Passing #200 Sieve	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C123 C131	ASTM C123 C88 C131 C237

WE TEST EVERYTHING — UNDER THE SUN

CC: 2-Lock Joint@Colwich
2-Keller
1-Knoll
1-Hess
File: 1

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RESEARCH ON MANUFACTURING PROBLEMS

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WICHITA 4, KANSAS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date 16 April 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 411

REPORT ON Fine Aggregate

LAB NUMBER 204164-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Fine Aggregate Check

Engineer: Black & Veatch

Location: Colwich, Kansas

No. 224

Sample taken by: Lab Insp. From Co. Stockpile Time: 11:30 A.M. Date: 4-13-56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	# 4	# 8	# 16	# 30	# 50	# 100	% Ret #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (F.M. 2.98)														
	-	0.6	5.0	16.4	33.6	57.7	86.0	98.3	99.3	O.K.	0.7	None	—	None
										Absorption: 0.72%				
Specifications: Par.B-208-B-4.05 (FM 2.50-3.10)	—	—	0-5	—	20-40	—	70-88	92-98	—	Type I	3.0	1.0	—	0.5
	F.M. ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material Meets specification requirements.

Remarks: Mortar Strength Tests will follow: (About 4-20-56)
Yield Check Shows 145 lb. 14 os/Cu.Ft.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By L. PHILLIPS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
FLORIDA PROFESSIONAL ENGINEERS

Date _____

Lab. Report No. _____

REPORT ON _____

LAB NUMBER _____
(Refer to this Number)

Laboratory _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

Cat. or Sample or Sieve	GRADING, Percent Passing Sieve Number — ASTM Mtd. & Class										IMPURITIES				
											Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
											ASTM C40	ASTM C117	ASTM C142 C88 AASHO T19	ASTM C88 C89 C123	ASTM C123

CERTIFIED

We certify this above test was conducted by us in accordance with the latest standard specifications relating thereto.

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LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date April 13, 1956

Aggr. Report No. LJC # 410

LAB NUMBER 904146
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK #209

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 AM Date: 4/13/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.58)	-	66.5	98.0	98.7	98.7	98.8	98.9	98.9	99.0	-	1.0	None	None	None
											ABSORPTION	2.71%		
CONTRACT EXTENSION														
Specifications: Par B-.03 - B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Organic Matter	% Silt Passing	Clay Lumps & Friable Shale	Unwashed Particles	Coal & Shale
ASTM C40	ASTM C117	ASTM C142 AASHTO T71	ASTM C88 C123 C40	ASTM C123 C29

GRADING Percent ASTM D75 & C136 Sieve number

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Waller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 12, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 409

REPORT ON FINE AGGREGATE

LAB NUMBER 9CA132-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #223

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 AM Date: 4/11/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Pass. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.81)	-	0.7	5.6	17.7	35.7	58.0	85.2	98.3	99.5	OK	0.5	None	-	None
				CONTRACT EXTENSION						ABSORPTION 0.70%				
Specifications:														
Par 8-2.02 8-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 4/18/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. I. Phillips

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CC:

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RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3913

WICHITA 4, KANSAS

File:

Date

Abbr. Report No.

REPORT ON

Lab NUMBER

(Refer to this Number)

Project

Location

Sample taken by Time: Date:

MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Sieve Number	GRADING Percent Passing — ASTM D75 & C136								IMPURITIES				
Size of Sample									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Thin/Soft Particles	Coal, Other Foreign
									ASTM C40	ASTM C117	ASTM C142 AASHO T112	ASTM C123 C85 C117	ASTM C123 C142 C117

CERTIFIED

We certify the above test was conducted by us in accordance with standard procedure and that the results reported are correct.

Wichita Laboratories

By

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LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint - Colwich
2 Feller
1 Knoll
1 Hess
File: 1

Date April 11, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 407

REPORT ON FINE AGGREGATE

LAB NUMBER 904113-A
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #222

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 4/10/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.96)	-	0.1	5.5	16.4	34.1	56.8	85.0	97.8	99.0	OK	1.0	None	None	None
				CONTRACT EXTENSION							ABSORPTION	0.87%		
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/18/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Shilling

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CC: 2 Lock Joint @Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date April 11, 1956

Aggr. Report No. LJC # 408

LAB NUMBER 904114
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

COARSE AGGREGATE CHECK #208

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Line

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Proc Co. Stockpile Time: 9:30 AM Date: 4/10/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.70)	-	78.8	98.4	98.5	98.5	98.5	98.6	98.6	98.7	-	1.3	None	None	None
					CONTRACT EXTENSION					ABSORPTION 2.72%				
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.: Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING LABORATORIES

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Project _____

Location _____

Sample taken by _____ Time _____ Date _____

| Use of Sample | GRADING, Percent | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 10, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 406

REPORT ON COARSE AGGREGATE

LAB NUMBER 904071
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK # 207

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 4/6/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE:														
Moline 3/4" Stone (FM: 6.52)	-	64.5	96.8	98.0	98.1	98.2	98.2	98.5	98.6	-	1.4	None	None	None
										ABSORPTION 2.64%				
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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WICHITA 4, KANSAS

MEMBERSHIPS AND AFFILIATIONS

AMERICAN CHEMICAL SOCIETY

AMERICAN SOCIETY FOR TESTING MATERIALS

AMERICAN SOCIETY OF CIVIL ENGINEERS

ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS

INTERNATIONAL PROFESSIONAL DIRECTORY

Date

Lab. Report No.

REPORT ON

LAB NUMBER

(Refer to this Number)

Contractor

Project

Engineer

Location

Sample Taken by

Time

Date

GRADING Percent

ASTM D75 & D98

IMPORTANTS

Organic Matter	% Silt P200	City Limits, Dusty Chalk	Unsound Particles	Coal Clay Lite
ASTM C40	ASTM C117	ASTM C88 AASHO T96	ASTM C88 Clay Lumps	ASTM C123 Coal Clay Lite

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that the material specified conforms.

Laboratory

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 10, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 405

REPORT ON FINE AGGREGATE

LAB NUMBER 904070-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #221

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 4/6/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Pass #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.00)	-	0.3	5.5	17.2	36.2	57.7	85.2	98.1	99.2	OK	0.8	None	-	None
										ABSORPTION 0.72%				
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	30-40	-	70-88	92-99	-	Typical	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/13/56)

JAMES E. HYER LICENSED ENGINEER 1162

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Organic Matter	% Silt P200	Clay Lumps, Shale	Friable Particles	Coal Shale Etc.
ASTM C40	ASTM C117	ASTM C142 & ASTM C40	ASTM C142 C40 C123 C123	ASTM C40 C123 C123

GRADING, Percent

ASTM D75 & C136

IMPURITIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwic
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date April 6, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L.J.C # 404

REPORT ON COARSE AGGREGATE

LAB NUMBER 904052
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #206

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 4/5/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.64)	-	75.2	96.9	97.7	97.9	98.1	98.6	99.1	99.3	-	0.7	None	None	None
										ABSORPTION 2.78%				
				CONTRACT EXTENSION										
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Producer.

WICHITA CHEMICAL & TESTING LABORATORIES
By R. L. Phillips

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"WE TEST EVERYTHING UNDER THE SUN"

CC:

File:

Date

Rep. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Location

Engineer

Sample taken by

Time:

Date:

Car or Sample Number	GRADING Percent — ASTM D75 & C136 — sieve number									IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHTO T10	Unsound Particles ASTM C88 C40 (131)	Coal Shale Etc. ASTM C123 C40 C29 C127

CERTIFIED

We certify the above tests were conducted by us in accordance with accepted procedures and that this report is complete and authentic representation.

WICHITA CHEMICAL AND TESTING LABORATORIES

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

Wichita CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 6, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC 403

REPORT ON FINE AGGREGATE

LAB NUMBER 904051-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P?P? Box 137, Colwich, Kansas

Project: 66" Water Transmission Liner
FINE AGGREGATE CHECK # 220

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:00 AM Date: 4/5/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.06)	-	0.3	4.3	14.3	34.2	68.4	85.8	98.3	99.4	OK	0.6	None	-	None
										ABSORPTION 0.71%				
CONTRACT EXTENSION														
Specifications: Par B 2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/13/56)

JAMES E. MCCLUSKY LICENSED 11621 PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita Chemical and Testing Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor: _____ Project: _____

Engineer: _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C295 C123 C131	ASTM C123 C295 C227

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date April 5, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 401

REPORT ON FINE AGGREGATE

LAB NUMBER 904034
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P. O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Line

FINE AGGREGATE CHECK # 219

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 4/4/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.09)	-	0.2	6.9	19.8	39.0	61.0	85.0	97.2	99.0	OK	1.0	None	-	None
										ABSORPTION		0.94%		
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.1
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/11/56)

JAMES E. MYERS LICENSED ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Sample taken by: _____ Time: _____ Date: _____

Cat. or sample number	GRADING, Percent — sieve number / ASTM D75 & C136								IMPURITIES: Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps & Friable Shale ASTM C142 AASHTO T112	Unsound Particles ASTM C88 C88 C131 C131	Coal & Lignite ASTM C123 C123 C123 C123

Remarks: _____

We certify the above test were made in accordance with accepted practices and that this material meets specification requirements.

WICHITA TESTING LABORATORIES

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date April 5, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 402

REPORT ON COARSE AGGREGATE

LAB NUMBER 904035
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 205

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 4/4/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.71)	-	81.5	97.6	98.1	98.2	98.4	98.5	98.7	98.9	-	1.1	None	None	None
												ABSORPTION 2.86%		
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15	98% Retained on No. 6 Sieve.												

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

File:

Date

Agg. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor:

Project:

Engineer:

Location:

Sample taken by

Time

Date:

Car or sample number	GRADING Percent ___ sieve number ___ ASTM D75 & C136							IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T19	Unsound Particles ASTM C295 C88 C131	Coal Sticks, Etc. ASTM C123 C123 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

RECEIVED

WICHITA CHEMICAL & TESTING LABORATORIES

2 Lock Joint © Colwich
CC: 1 Weller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 4, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 399

REPORT ON FINE AGGREGATE

LAB NUMBER 904019-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #216

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prom Co. Stockpile Time: 8:30AM Date: 4/3/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
D Lese Bros. Sand (FM: 3.01)	-	0.2	7.4	18.8	36.6	57.4	83.3	97.6	99.1	OK	0.9	None	-	None
										ABSORPTION		0.69%		
				CONTRACT EXTENSION										
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Test Will Follow (About 4/11/56)

JAMES F. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R.H. "Pete" Phillips

WE TEST EVERYTHING

UNDER THE SUN

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date

Addr. Report No.

REPORT ON

LAB NUMBER

(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by

Time:

Date:

Car or Sample Number	GRADING Passing										above number
	ASTM DTS & C136										

IMPURITIES					
Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.	
ASTM C40	ASTM C117	ASTM C142 AASHO T71	ASTM C88 AASHO T104	ASTM C123	

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colvic
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date April 4, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 400

REPORT ON COARSE AGGREGATE

LAB NUMBER 904020
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 204

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 4/3/56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone	-	(FM: 6.69) 80.7	97.3	97.8	97.9	98.1	98.4	98.8	98.9	-	1.1	None	None	None
				CONTRACT EXTENSION						ABSORPTION 2.94%				
Specifications: Par B-2.03	B-4.05	(FM: 6.58)												
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15	98% Retained on No. 6 Sieve.												

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita
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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Consultation _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING Percent _____ sieve number _____ ASTM D75 & C136							IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
								ASTM C40	ASTM C117	ASTM C142 C235 C88 A.1.SSO T19	ASTM C142 C88 C130	A.S.T.M. C142 C123 C29 C127

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this report is representative of the sample(s) identified on this report.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint &Colwich
2 Keller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #398

REPORT ON COARSE AGGREGATE

LAB NUMBER 904006
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK 203

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15AM Date: 4/2/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Pass #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc. ASTM C123 C128 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.57)	-	72.0	96.1	97.2	97.5	97.7	97.9	98.4	98.6	-	1.4	None	None	None
					CONT FACT EXTENSION					ABSORPTION 2.74%				
Specifications: Par B 2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

CC:

File:

Date

Agcy. Report No.

LAB NUMBER

(Refer to this Number

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Oar or sample number	GRADING, Percent ... sieve number ... ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	Silt % P200 ASTM C117	Clay Lumps, Shale ASTM C142 C85 AASHO T11	Unsound Lumps, Particles ASTM C123 C142 C88	Coal Lignite ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specifications requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwi
2 Neller
1 Knoll
1 Hess
File: 1

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WICHITA 4, KANSAS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date April 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 397

REPORT ON FINE AGGREGATE

LAB NUMBER 904005-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #217

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:00 AM Date: 4/2/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.01)	-	0.1	7.1	18.7	36.4	57.3	83.5	97.7	99.0	OK	1.0	None	-	None
										ABSORPTION 0.76%				
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-98	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/9/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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CC:

Date _____

Agge. Report No. _____ Z

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor: _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time: _____ Date: _____

Char or sample number	GRADING Percent _____ Sieve number _____ ASSOC DOT & CASE								IMPURITIES			
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Slicks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C295 C123 C88	ASTM C123 C127

CERTIFIED

We certify the above test was complied by
us in ac... dance with accepted procedures
and that this material
specification requirements.

RESULTS:

WICHITA CHEMICAL AND TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date April 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC 395

REPORT ON FINE AGGREGATE

LAB NUMBER 903423-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #216

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 3/30/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4	3/8	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.97)	-	0.8	4.7	15.9	34.8	58.3	85.5	97.5	99.0	OK	1.0	None	-	None
												ABSORPTION 0.72%		
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER 1162

Remarks: Mortar Strength Tests Will Follow (About 4/6/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Agcy. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Car or sample number	GRADING, Percent ___ sieve number ___ ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C131	ASTM C123 C123 C29 C237

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material complies on requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

By

Remarks:

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WICHITA 4, KANSAS

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Voss
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date April 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 396

REPORT ON COARSE AGGREGATE

LAB NUMBER 903424
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK #202

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 3/30/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.55)	-	72.3	94.8	97.0	97.3	97.5	97.7	98.0	98.1	-	1.9	None	None	None
										ABSORPTION 2.96%				
CONTRACT EXTENSION														
Specifications: Par B-2.03, B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER 1166 KANSAS

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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1128 N. MOSLEY AVE. PHONE HOBART 4-5846

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEER

Date _____ File: _____

Agr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent ASTM Dist. & Size — sieve number								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Limonite Particles	Coal Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C238 C88 C123	ASTM C123 C117

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification (no exemptions.

Remarks: _____

WICHITA CHEMICAL AND TESTING LABORATORIES

By _____

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint & Colwich
2 Keller
1 Knoll
1 Hess
File: 1

Date March 30, 1956

Aggr. Report No. LJC # 323

LAB NUMBER (Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Engineer: Mack T. Vestal

Project: 66" Water Transmission Lines

Location: Colwich, Kansas

FINE AGGREGATE CHECK #215

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 3/29/56

GRADING, Percent sieve number — ASTM D75 & C136

Car or sample number	3/8"	3/4"	#4	#8	#16	#30	#50	#100	#200	% Ret.	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE															
Dolese Bros. Sand (FM: 3.28)	-	-	7.2	22.5	44.2	66.7	89.0	98.1	99.2		K	0.9	None	-	None
					CONTRACT EXTENSION						ABSORPTION	0.89%			
Specifications:															
Per B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-		TypeI	3.0	1.0	-	0.5
FM: ± 0.15															

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material does not meet specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests will follow (About 4/6/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Project: _____

Location: _____

Engineer: _____

Sample taken by: _____ Time: _____ Date: _____

Char. of Sample Number	GRADING Percent sieve number									IMPURITIES			
										Organic Matter	% Silt Passing #200 Sieve	Clay Lumps & Friable Particles	Unwashed Coal Shale Etc.
										ASTM C40	ASTM C117	ASTM C123 AASHTO T19	ASTM C123 C40 C117 C117

CERTIFIED

We certify the above test was conducted by
us in accordance with accepted Procedures
and meet the material
specification requirements

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint @ Colwi
2 Weller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 30, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 394

REPORT ON COARSE AGGREGATE

LAB NUMBER 903405
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #201

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 3/29/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.61)	-	77.3	95.8	96.8	97.2	97.6	98.1	98.5	98.6	-	1.4	None	None	None
										ABSORPTION	2.74%			
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Producer.

JAMES E. MARSH LICENSED ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. E. Phillips

Wichita Chemical and Testing Laboratories

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WICHITA 4, KANSAS

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Tested: _____ Date: _____

Cat. or Sample Number	GRADING, Percent — Sieve Number								IMPURITIES			
								ASTM Designation	Organic Matter	% Silt Passing #200	Clay Lumps or Friable Shale	Dissolved Salts Parts/Mil.
									ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C125 C126 C127

We certify the above data was conducted by us in accordance with recognized procedures and that this material complies with specification requirements.

Remarks: _____

WICHITA TESTING & CHEMICAL LABORATORIES

By _____

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hass

File: 1

Date March 29, 1956

Aggr. Report No. LJC # 389

LAB NUMBER 903367-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

FINE AGGREGATE CHECK # 213

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 3/27/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4	3/8	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.05)	-	0.8	5.9	18.1	37.2	60.1	85.5	97.8	99.4	OK	0.6	None	-	None
										ABSORPTION		0.68%		
CONTRACT EXTENSION														
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED ENGINEER 1162 STATE OF KANSAS

Remarks: Mortar Strength Tests Will Follow (About 4/4/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date _____

Assn. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number _____ ASTM Div. & Class								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C88 C123	ASTM C123 C117

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

CERTIFIED
We certify the above test was conducted by
us in accordance with accepted procedures
and that this material
specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwi
2 Weller
1 Knoll
1 Hess
File: 1

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PERIODIC AGGREGATE CHECK

Date March 29, 1956

Aggr. Report No. LJC # 390

REPORT ON COARSE AGGREGATE

LAB NUMBER 903368
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwic , Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #199

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 3/27/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.47)	-	66.4	93.3	96.4	97.0	97.4	98.0	98.5	98.8	-	1.2	None	None	None
					CONTRACT EXTENSION					ABSORPTION 2.71%				
Specifications: Par B-2.02 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Aggr. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ... sieve number — ASTM D75 & C136								IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T71	Unsound Particles ASTM C88 C123 C131	Coal Sticks, Etc. ASTM C123 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date March 29, 1956

Aggr. Report No. LJC # 391

REPORT ON FINE AGGREGATE

LAB NUMBER 903382-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 214

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:15 AM Date: 3/28/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4	3/8	#4	#8	#16	#30	#50	#100	% Ret #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand; (FM: 3.16)	-	0.1	5.9	19.2	40.5	64.5	87.9	97.6	99.0	OK	1.0	None	-	None
										ABSORPTION		0.87%		
CONTRACT EXTENSION														
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests Will Follow (About 4/4/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Hilling

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1625 N. MOSLEY AVE. PHONE HOBART 4-5946

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date _____

Appr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

Car or sample number	GRADING, Percent passing sieve number — ASTM D75 & C136								IMPURITIES: Organic Matter ASTM C40	IMPURITIES: Silt, P200 ASTM C117	IMPURITIES: Clay Lumps, Shale ASTM C142 AASHO T112	IMPURITIES: Unsound Particles ASTM C88 C131	IMPURITIES: Coal Shale, Etc. ASTM C123 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint & Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 29, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 392

REPORT ON COARSE AGGREGATE

LAB NUMBER 903383
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwic, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #200

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 3/28/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.55)	-	69.4	95.7	97.5	97.7	97.9	98.2	98.5	98.7	-	1.3	None	None	None
										ABSORPTION		2.68%		
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

JAMES L. PHILLIPS LICENSED 116 KANSAS PROFESSIONAL ENGINEER

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WE TEST EVERYTHING — UNDER THE SUN

CC:

CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

To:

Date

Addr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor Project

Engineer Location

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ... sieve number ... ASTM D422 & C136								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 C123 AASHO T10	Uncoated Particles ASTM C123 C84	Coal Sticks, Etc. ASTM C123 C123 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Keller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 28, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 388

REPORT ON COARSE AGGREGATE

LAB NUMBER 903350
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 187, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 198

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Bros Co. Stockpile Time: 9:15 AM Date: 3/26/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE Moline 3/4" Stone (FM: 6.74)	-	87.0	97.0	97.4	97.6	97.8	98.3	98.5	98.7	-	1.3	None	None	None
					CONTRACT EXTENSION						ABSORPTION 2.69%			
Specifications: Par B-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15			98% Retained on No. 6 Sieve.										

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements does not meet

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas. Produce.

JAMES E. MY... LICENSED ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By

CC:

Date _____

Lab. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Type of Sample Material	GRADING, Percent ASTM No. & Size	sieve number								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale, Etc.
										ASTM C40	ASTM C117	ASTM C88 AASHO T96	ASTM C142 C330	ASTM C123 C29 C142 C117

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colvi
2 Weller
1 Knoll
1 Nees
File: 1

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ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 27, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 387

REPORT ON FINE AGGREGATE

LAB NUMBER 903349-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 127, Colwich, Ks.

Project: 66" Water Transmission Line

FINE AGGREGATE CHECK #212

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 3/26/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE	-	0.4	5.1	17.6	37.1	60.3	85.4	97.6	99.0	OK	1.0	None	-	None
												ABSORPTION 0.80%		
					CONTRACT EXTENSION									
Specifications: Par 2-2.02, FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-85	92-98	-	Typel	3.0	1.0	-	0.5
		FM: ± 0.15												

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 4/2.56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 26, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. WC # 386

REPORT ON COARSE AGGREGATE

LAB NUMBER 903331
(Refer to this Number)

Contractor: Lock Joint Pipe Company
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #197

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:15 AM Date: 3/23/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.51)	-	71.3	93.8	95.6	96.1	96.9	98.0	98.9	99.1	-	0.9	None	None	None
					CONTRACT EXTENSION					ABSORPTION 2.74%				
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co. Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita Chemical and Testing Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

1420 N. MOSLEY AVE. PHONE NOBART 4-3948

WICHITA 4, KANSAS

File:

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent ____ ____ ____ Sieve Number ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	% Silt Finer ASTM C117	Clay Lumps, Shale AASHO T71 ASTM C142 C85 C123	Unsound Particles ASTM C88 C123 C237	Coal, Sticks, Etc. ASTM

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 26, 1956

Aggr. Report No. LJC # 385

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 903332-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #211

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 3/23/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200 Ret.	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.94)	-	0.5	6.3	14.8	33.7	56.2	84.9	97.3	99.0	OK	1.0	None	-	None
										ABSORPTION 0.73%				
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength tests will follow (About 3/30/56)

JAMES E. MOORE LICENSED PROFESSIONAL ENGINEER 1162 STATE OF KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By P. L. Phillips

CC

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Mfr: _____

Mfr's Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

Car or Sample Number	GRADING, Percent ASTM D422 & C136 Sieve number							IMPURITIES				
								Organic Matter	% Silt P200 Sieve	Clay Lumps, Shale	Unsound Particles	Coal Shale, Etc.
								ASTM C40	ASTM C117	ASTM C142 AASHO T112	ASTM C88 C123 C131	ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

CC: 2 Lock Joint @ Colwich
2 Keller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 26, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 383

REPORT ON FINE AGGREGATE

LAB NUMBER 903308-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #210

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 3/22/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.94)	-	-	4.2	16.1	34.5	57.5	84.7	97.4	99.6	OK	1.0	None	-	None
										ABSORPTION		0.68%		
CONTRACT EXTENSION														
Specification: Par 2-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-85	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Morter Strength Tests will follow (About 3/30/56)

JAMES E. MYERS LICENSED 1162 PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

Phill.ps

IMPURITIES				
Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C123 C88 C131	ASTM C123 C88 C142

GRADING, Percent ____ sieve numbers

ASTM D75 & C136

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material meets specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
Weller
1 Knoll
1 Hess

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 26,1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 385

REPORT ON COARSE AGGREGATE

LAB NUMBER 903309
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines COARSE AGGREGATE CHECK #196

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 3/22/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.56)	-	75.7	93.5	96.4	97.0	97.3	97.8	98.5	98.7	-	1.3	None	None	None
					CONTRACT EXTENSION					ABSORPTION 2.90%				
Specifications: Par B-2.03 B-4.05 (FM: 6.57)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Producer.

JAMES E. MYERS CENSED 1962

WICHITA CHEMICAL & TESTING LABORATORIES

By W. F. Phillips

Wichita Chemical and Testing Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Labr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or Sample Number	GRADING, Percent ASTM Pro & C136 sieve number								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale AASHO T26 ASTM C142	Unsound Particles ASTM C235 C88 C131	Coal Slicks, Etc. ASTM C123 C123 C29 C40

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 26, 1956

Aggr. Report No. LJC # 381

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 903291-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 209

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:30 AM Date: 3/21/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Doless Bros. Sand (FM: 3.15)														
	-	0.6	6.7	19.1	40.0	63.3	86.5	97.8	99.0	OK	1.0	None	-	None
										ABSORPTION 0.80%				
					CONTRACT EXTENSION									
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I 3.0	1.0	-		0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 3/28/56)

JAMES E. MYERS LICENSED

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Testing Laboratories

CHEMICAL AND TESTING

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Date _____

Agge. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Project: _____

Location: _____

Sample taken by: _____ Time _____ Date: _____

Car or sample number	GRADING Percent _____ sieve number _____ ASTM D13 & C136								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T76	Unsound Particles ASTM C88 C123	Coal, Sticks, Etc. ASTM C123 C123 C127

CERTIFIED

We certify this stone (gravel) was produced by methods in accordance with accepted procedures and that this material meets specification requirements.

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
Weller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 26, 1956

Aggr. Report No. LJC # 382

LAB NUMBER 903292
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #195

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:30 AM Date: 3/21/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.62)	-	72.4	97.4	98.2	98.3	98.4	98.5	98.6	98.7	-	1.3	None	None	None
										ABSORPTION 2.65%				
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co; Moline, Kansas. Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By P. L. Phillips

Date _____

Agg. Report No. _____

LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C88 C123 C123	ASTM C123 C123 C27

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date March 26, 1956

Aggr. Report No. LJC # 379

REPORT ON FINE AGGREGATE

LAB NUMBER 903265-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #208

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:15 AM Date: 3/20/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.99)	-	0.6	3.9	15.2	36.0	61.0	85.0	97.7	99.1	OK	0.9	None	-	None
										ABSORPTION	0.74%			
			CONTRACT EXTENSION											
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I 3.0		1.0	-	0.5

Remarks: FM: ± 0.15
Mortar Strength Tests Will Follow (About 3/28/56)

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Chemical and Testing Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Abbr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location: _____

Sample taken by _____ Time: _____ Date: _____

Cat or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T70	ASTM C88 C123	ASTM C88 C123 C127

CC: _____ File: _____

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material ☐ does ☐ does not meet specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwi
2 Waller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 21, 1956

Aggr. Report No. LJC # 380

LAB NUMBER 903266
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #194

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prom Co. Stockpile Time: 9:15 AM Date: 3/20/56

Car or sample number	GRADING, Percent Retained — sieve number, ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.42)	-	58.0	95.0	97.3	97.6	97.7	98.1	98.5	98.7	-	1.3	None	None	None
										ABSORPTION 2.89%				
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material does not meet specification requirements.

JAMES E. MYERS LICENSED ENGINEER 1152 STATE OF KANSAS

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita Laboratories

CHEMICAL AND TESTING

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RESEARCH ON MANUFACTURING PROBLEMS

1402 N. MOSLEY AVE. PHONE HOBART 4-8848

WICHITA 4, KANSAS

File:

Date

Assn. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by Time Date

Cr. or Sample Number	GRADING Percent ... sieve number ... ASTM E11 & C136								IMPURITIES ASTM C40 Organic Matter	% Silt P200 C117	Clay Lumps, Shale AASHO T112 ASTM C142 C123	Unsound Particles ASTM C88 C142	Coal Shales Etc. ASTM C123 C123 C123 C123

CERTIFIED

We certify the above test was completed by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colw.
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 21, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 377

REPORT ON FINE AGGREGATE

LAB NUMBER 903244-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 207

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 3/ 9/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								$ Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.22)	-	0.2	7.6	20.7	49.6	60.9	85.0	97.5	99.0	OK	1.0	None	-	None
					CONTRACT EXTENSION					ABSORPTION 0.79%				
Specifications: Par B-2.02 b-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests Will Follow (About 3/26/56

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC

Wichita Chemical and Testing Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

1425 N. MOSLEY AVE. PHONE HOBART 4-3946

WICHITA 4, KANSAS

Date _____

Agar. Report No. _____

CAR NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent Passing U.S. Std. Sieve Number								IMPURITIES				
									Organic Matter ASTM C40	% Silt Passing #200 Sieve ASTM C117	Clay Lumps, Shale ASTM C142 AASHTO T26	Unsound Particles ASTM C295 C88 C131	Coal, Shale, Etc. ASTM C123 C142 C127

CERTIFIED

We certify the above test was conducted in accordance with accepted procedures and that this material meets specification requirements.

WICHITA CHEMICAL AND TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 21, 1956

Aggr. Report No. LJC # 378

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 903245
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #193

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 3/19/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret., #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.43)	-	62.4	94.5	96.5	96.8	97.1	97.5	98.2	98.4	-	1.6	None	None	None
										ABSORPTION 2.71%				
CONTRACT EXTENSION														
Specifications: Par B-2.03, B-4.05 (FM: 6.58)														
C-10		40-80	80-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted practices and that this material specification requirements meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1164 KANSAS PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Chemical and Testing Laboratories

Analytical Chemists · Bacteriologists · Testing Engineers

Research on Manufacturing Problems

1629 N. Mosley Ave. · Phone Hobart 4-5948

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Member of:
American Chemical Society
American Society for Testing Materials
American Society of Civil Engineers
Associated Laboratories
Licensed Professional Engineers

CC:

File:

Date _____

Aggr. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

| Car or Sample Number | GRADING Percent ASTM 3/8 & Over | Sieve Number | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwi
2 Weller
1 Knoll
1 Hess

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 19, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 375

REPORT ON FINE AGGREGATE

LAB NUMBER 903218B
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK 206

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 3/16/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.02)	-	0.3	5.3	17.8	37.0	58.8	85.0	97.6	99.0	OK	1.0	None	-	Non
										ABSORPTION 0.68%				
				CONTRACT EXTENSION										
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-95	92-98	-	Typ.	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

Remarks: Mortar Strength Tests will follow (About 3/23/56)

JAMES E. MYERS LICENSED ENGINEER KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

"WE TEST EVERYTHING" — "UNDER THE SUN"

CC:

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File:

Date

Lab. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor Project:

Engineer Location:

Sample taken by: Time: Date:

Car or Sample Number	GRADING, Percent ASTM D75 & C136 Sieve number								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 C589 AASHO T71	Unsound Particles ASTM C88 C131	Coal, Sticks, Etc. ASTM C123 C29 C40 C227

CERTIFIED
We certify the above test was conducted by this laboratory or was supervised personally and that it is accurate and complete to the best of our knowledge.

Remarks

WICHITA TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
1 Keller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 19, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #376

REPORT ON COARSE AGGREGATE

LAB NUMBER 903219
(Refer to this Numb

Contractor: Lock Joint Pi e Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK
192

Engineer: Black & Veatch

Location: Colwich, Kans s

Sample taken by: Lab. Insp. Pres Co. Stockpile Time: 9: 0 AM Date: 3/16/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	C Sti E AS C C C
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.60)	-	76.3	95.6	96.7	97.2	97.6	98.1	98.3	98.4	-	1.6	None	None	Non
										ABSORTION 2.9%				
					CONTRACT EXTENSION									
Specifications: Per M-2.03, P-4.05 (FM: 6.50)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 — 98% Retained on No. 4 Sieve.													

Remarks: Source: Concrete Materials & Const. Co. Moline, Kansas, Producer.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets

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CC: Lock Joint & Colwic
2 Weller
1 Knehl
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 15, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 373

REPORT ON FINE AGGREGATE

LAB NUMBER 903189-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 205

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 3/14/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Det.	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Stick Etc. ASTM C123 C128 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.98)	-	0.1	5.8	16.5	34.6	58.0	84.9	97.6	99.1	OK	0.9	None	-	None
										ABSORPTION 0.97%				
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10) FM: ± 0.15	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted practices and that this material meets specification requirements.

JAMES E. MYERS 1162 LICENSED PROFESSIONAL ENGINEER STATE OF KANSAS

Remarks: Crtar Strength Tests will follow (About 3/21/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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Research on Manufacturing Problems

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Wichita 3, Kansas

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REPORT ON _____ LAB NUMBER _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Sample Number	Grading Percent — Sieve Number / ASTM Designation & Size								Impurities: Organic Matter ASTM C40	Impurities: % Silt Passing ASTM — Clay	Impurities: Clay Lumps, Shale ASTM C142 AASHO T26	Impurities: Unsound Particles ASTM C88 C131 C88 C131	Coal or Similar Substance ASTM C123 C123 C123 C123

CERTIFIED

We certify the above test was conducted by or in accordance with licensed professionals and that this material specification requirements.

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CC: Lock Joint Pipe Co.
2 Weller
1 Knoll
1 Vess
File: 1

PERIODIC AGGREGATE CHECK

Date March 15, 1956

Aggr. Report No. LJC # 374

REPORT ON COARSE AGGREGATE

LAB NUMBER 803190 (Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #191

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:00 AM Date: 3/14/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Stick Etc AST C12 C12 C22
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.64)	-	80.0	95.2	97.2	97.6	97.8	98.0	98.3	98.4	-	1.6	None	None	None
										ABSORPTION 2.94%				
CONTRACT EXTENSION														
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 4 Sieve.

Remarks: Source: Concrete Materials Const. Co.; Moline, Kansas, Producer.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets

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REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Case or sample number	CRACKING, Percent							IMPURITIES				
								Organic Matter	% Silt	Clay Lumps, Shale	Thorough Particles	Other
								ASTM C40	ASTM C117	ASTM D142 AASHO T73	ASTM C123 C88 C142	

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CC: Lock Joint & Colwi
2 Weller
1 Nicoll
1 Hess
File: 1

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Date March 14, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. C # 372

REPORT ON COARSE AGGREGATE

LAB NUMBER 903173
(Refer to this Numb

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK
190

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 3/13/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								Wet.	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	C Sti E
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.30)	-	57.5	91.5	94.5	95.2	95.9	97.0	98.0	98.3	-	1.7	None	None	None
										ABSORPTION 2.95%				
CONTRACT EXTENSION														
Specifications: Par B-2.03 F-4.05 (FM: 6.58)	0-10	20-30	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 4 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material does not meet specification requirements. Supplier Notified.

Remarks:
Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R.L. Phillips

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CC: 2 Lock Joint @ Colvi
2 Waller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date March 14, 1956

Aggr. Report No. LJC # 371

REPORT ON Fine Aggregate

LAB NUMBER 903172-A
(Refer to this Numbe

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK 204

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Gr. Stockpile Time: 8:45 A.M. Date: 3/13/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc AST C12 C12 C22
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.04)	-	0.1	5.5	17.5	36.6	59.6	86.2	98.2	99.5	OK	0.5	None	-	None
				CONTRACT EXTENSION						ABSORPTION 0.89%				
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

Remarks: Mortar Strength Tests will follow (About 3/21/56)

JAMES E. MYERS 1162 REGISTERED ENGINEER

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CC: 2 Lock Joint © Colwi
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1 Knoll
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Date March 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. I-C # 369

REPORT ON FINE AGGREGATE

LAB NUMBER 903159-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK NO.203

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. from Lock Co. Stockpile Time: 8:30 AM Date: 3/12/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/8"	3/4"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.10)	-	0.6	6.3	19.4	38.7	61.0	86.8	97.8	99.2	OK	0.8	None	-	None
											ABSORPTION	0.89%		
CONTRACT EXTENSION														
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 3/19/56)

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LICENSED PROFESSIONAL ENGINEERS

Date _____

Lab. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time _____ Date: _____

Class or Symbol	GRADING Percent ASTM D75 & C136 sieve number										DILUENTS				
											Organic Matter	% Silt P200	Clay Lumps Shale	Unsound Particles	Coal Shale Etc.
											ASTM C40	ASTM C117	ASTM C142	ASTM C123	ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks _____

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CC: 2-Lock Joint @Colwich
2-Heller
1-Knoll
1-Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date 13 March 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 367

REPORT ON Fine Aggregate

LAB NUMBER 903134-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box, 137, Colwich, Kans.

Project: 66" Water Transmission Lines

Fine Aggregate
Check No. 202

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Inspector from Co. Stockpile Time: 8:30 A.M. Date: 3-9-56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Pat # 200	IMPURITIES				
	3/4/"	3/8"	#4	# 8	# 16	# 30	# 50	# 100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc. ASTM C123 C128 C227
FINE AGGREGATE														
Dolese Bros. Sand (F.M. 3.12)	-	0.9	6.4	19.8	39.3	62.0	86.5	97.7	9981	O.K.	0.9	None	-	None
										Absorption 0.7%				
Specifications: Par B-2.02- B-4.05 (F.M. 2.50-3.10)	-	-	0-5	-	29-40	-	70-88	92-98	-	Type 1	1.0	1.0	-	0.5
	F.M. ± 0.15													

Remarks: Mortar Strength Tests will Follow (About 3-16-56)
Yield Check Shows 145 lb. 8 oz/ Cu. Ft.

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CC:

Date

Addr. Report to

LAB NUMBER

(Refer to this number)

REPORT ON

Project:

Location:

Telephone:

Sample taken by:

Date:

Color or Sample Number	GRADING, Percent Passing Sieve Number — ASTM D422-63								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unusual Particles	Coal Shale Etc.
									ASTM C40	ASTM C117	ASTM C142 CLAY LUMPS & FRIABLE PARTICLES	ASTM C123 C295 C851	

Remarks:

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CC: Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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Date March 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 368

REPORT ON COARSE AGGREGATE

LAB NUMBER 903135
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #128

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 3/9/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.76)	-	84.0	98.5	98.6	98.6	9 .7	98.7	98.8	98.9	-	1.5	None	None	None
										ABSORPTION 2.94%				
CONTRACT EXTENSION														
Specifications: Per S-2.03 B-4.05 (FM: 6.58)	0-10	40-70	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 95% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets does not meet specification requirements.

Remarks: Source: Concrete Materials & Construction Co. Moline, Kansas, Producer.

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KANSAS PROFESSIONAL ENGINEERS

REPORT ON _____

Date _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Agg. Report No. _____ LAB NUMBER _____
(Refer to this Number)

Char. of Sample Burlap

GRADING Percent _____ Sieve Number _____

Sieve Pct. & Size

IMPURITIES

Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Lignite, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C123 C88 D138	ASTM C123 C88 D138 C127

CERTIFIED

We certify the above test was completed by us in accordance with accepted procedure and that the results reported are correct.

Remarks:

Wichita Chemical & Testing Laboratories

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CC: 2 Lock Joint @ Colwich
Keller
1 Knoll
1 Hess
File: 1

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Date March 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L.C. # 270

REPORT ON COARSE AGGREGATE

LAB NUMBER 903160
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK # 189

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 3/12/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.69)	-	78.2	97.5	98.4	98.5	98.5	98.6	98.7	98.7	-	1.3	None	None	None
										ABSORPTION	2.64%			
CONTRACT EXTENSION														
Specification Par B-2.03 B-4.05 (FM: 6.53)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements and the

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

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By R. L. Phillips

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CC:
2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
1 File
File:

Date March 12, 1956

Aggr. Report No. LJC # 365

LAB NUMBER 903115-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #201

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp.From Co. Stockpile Time: 9:00 AM Date: 3/8/56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM 3.13)														
	-	0.1	6.8	20.2	39.3	61.3	87.0	98.4	99.2	OK	0.8	None	-	None
										ABSORPTION 0.71%				
					CONTRACT EXTENSION									
Specifications: Per B-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	C-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED 1162 ENGINEER PROFESSIONAL

Remarks: Mortar Strength tests will follow (About 3/15/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By _____
M. L. Phillips

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1220 N. MOSLEY AVE. PHONE HOBART 4-3548

WICHITA 4, KANSAS

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MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Aggr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Condition:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or sample number	GRADING Percent ASTM Dia & 1936 sieve number								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc
									ASTM C40	ASTM C117	ASTM C142 C235 C88 AASHO T10	ASTM C123 C128 C29 C227	

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedure and that this report is true.

Wichita Chemical & Testing Laboratories

By

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Feller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 12, 1956

Aggr. Report No. L&C # 366

LAB NUMBER 903116
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #137

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Pre Co. Stockpile Time: 9:30 AM Date: 3/8/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE Moline 3/4" Stone (FM: 6.73)	-	85.0	98.0	98.2	98.3	98.3	98.3	98.4	98.5	-	1.5	None	None	None
										ABSORPTION 2.94%				
Specifications: Par B-2.03 B-4.05 (FM: 6.5?)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 93% Retained on No. 6 Sieve.													

Contract Extension

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material does not meet specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER 1162

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Pit Gravel

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

File:

Date

Agg. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by:

Time:

Date:

Class of Sample Number	GRADING, Percent									IMPURITIES				
										Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Pcf
										ASTM C40	ASTM C117	ASTM C142 AASHO T11	ASTM C235 C88 C131	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedure and that this material complies with specification requirements.

By

WE TEST EVERYTHING UNDER THE SUN

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

2 Lock Joint & Colwich
CC: Keller
1 Knoll
1 Hess

File: 1

Date March 9, 1956

Aggr. Report No. LJC # 364

LAB NUMBER 903082
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #186

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:5 AM Date: 3/6/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.52)	-	64.5	97.0	98.0	98.0	98.1	98.1	98.2	98.3	-	1.7	None	None	None
										ABSORPTION 2.74%				
Specifications: Par B-2.03	0-4.05	(FM: 6.58)												
	0-10	70-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 4 Sieve.													

CERTIFIED
We certify, the above test was conducted by us in accordance with accepted procedure and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co. Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

"WE TEST EVERYTHING" — "UNDER THE SUN"

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
1428 N. MOSLEY AVE. PHONE HOBART 4-2948
WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Aggr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Contractor:

Location:

Engineer:

Sample taken by: Time: Date:

Car or Sample Number	GRADING Percent ASTM D75 & C136 Sieve number								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc.
									ASTM C40	ASTM CLAY	ASTM C142 AASHO T19	ASTM C123 C88 C235 C227	ASTM C123 C88 C235 C227

CERTIFIED
We certify the above test were performed by us in accordance with accepted procedures and that the results reported are true and correct.

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Feller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 361

REPORT ON FINE AGGREGATE

LAB NUMBER 903061-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #199

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 3/5/56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.99)	-	0.1	5.3	16.9	36.1	58.7	84.0	97.5	99.0	OK	1.0	None	-	None
										ABSORPTION 0.68%				
Specifications: Par B-2.02 B4.05	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 3/12/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. E. Phillips

Wichita Testing Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

WE TEST EVERYTHING UNDER THE SUN

CC:

File:

Date

Aggr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project:

Location:

Engineer:

Contractor:

Sample Taken by: Time: Date:

Can or Sample number	GRADING, Percent ... sieve number — ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C123 C88 C85 C142	ASTM C123 C127

CERTIFIED

We certify the above test are conducted by us in accordance with accepted practice and that this data is true.

Remarks:

WICHITA TESTING LABORATORIES

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint - Colw
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L.C # 362

REPORT ON COARSE AGGREGATE

LAB NUMBER 903062
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #65

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 3/5/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE Moline 3/4" Core (FM: 6.78)	-	84.8	95.5	95.9	98.9	98.9	99.0	99.0	99.0	-	1.0	None	None	None
										ABSORPTION 2.99%				
Specifications: Par D-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By E. L. Phillips

CC:

File:

Date

Assr. Report No.

CAR NUMBER

(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time:

Date:

Car or sample number	GRADING Percent ASTM D75 & D136 Sieve number								Organic Matter	% Silt #200	Clay Lumps Shale	Unsound Particles	Coal Shale & Bit.
									C40	C117	C142	C123	D291

IMPURITIES

(RESTRICTED)

We certify the above test was conducted in strict accordance with accepted procedure and that the material represented complies with specifications.

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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WICHITA 4, KANSAS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 363

REPORT ON FINE AGGREGATE

LAB NUMBER 903081-A
(Refer to this Numbe

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kans s

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 200

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prom Co. Stockpile Time: 8:45 AM Date: 3/6/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret.	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Co Stic Etc AST C12 C12 C22
FINE AGGREGATE														
Deloss Bros. Sand (FM: 3.10)	-	0.1	7.5	19.1	38.2	61.0	86.0	98.0	99.1	OK	0.9	None	-	None
										ABSORPTION 0.93 %				
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength to to will follow (About 3/14/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agr. Report No. _____

LAB NUMBER _____

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent ASTM D75 & C136 Sieve number								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Cher Sticks Brick
									ASTM C40	ASTM C117	ASTM C142 Class AASHO T26	ASTM C88 Class	ASTM C123 Class

CERTIFIED

We certify the above mat was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

WICHITA MATERIALS & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
Fuller
1 Krell
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 5, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LIC #359

REPORT ON FINE AGGREGATE

LAB NUMBER 903035-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #198

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab.Insp. From Co. Stockpile Time: 8:30 AM Date: 3/2/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE Dolese Bros. Sand (FM. 2.97)	-	0.1	5.2	16.6	34.9	57.3	85.0	97.8	99.5	OK	0.5	None	-	None
										ABSORPTION 0.94%				
Specifications: Per B-2.02 B-4.05 (FM. 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 3/9/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Billings

CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE NOBART 4-5349

WICHITA 4, KANSAS

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Date _____

Abbr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Engineer _____

Location: _____

Sample taken by _____ Time _____ Date _____

Card or sample number	GRADING, Percent — sieve number — ASTM D422 & C136								IMPURITIES: Organic Matter ASTM C40	% Silt, P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T11	Uncoated Particles ASTM C123 C88 C131 C127	Coal, Shale, Etc.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements.

Remarks: _____

WICHITA TESTING LABORATORY

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint - Colwich
CC: Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date March 5, 1956

Aggr. Report No. LIO # 360

REPORT ON COARSE AGGREGATE

LAB NUMBER 903036 (Refer to this Number)

Contractor: Lock Joint Pipe Co. P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines COARSE AGGREGATE CHECK #184

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 3/2/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.66)	-	25.4	97.6	98.4	98.5	98.6	98.6	98.7	98.7	-	1.3	None	None	None
											ABSORPTION 2.91%			
Specifications: Par 2-2.03 B-4.05 (FM: 6.50)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Date

Lab. Report No.

REPORT ON

LAB NUMBER

(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Sample Number	Gradation (GRADING, Percent ... Sieve Number) ASTM D75 & C136								Impurities: Organic Matter ASTM C40	Impurities: % Silt Finer than #200 ASTM C117	Impurities: Clay Lumps, Shale ASTM C142	Impurities: Deleterious Particles ASTM C123 C142 C117 C51	Impurities: Coal, Sticks, Etc. ASTM C123 C142 C117

CERTIFIED

We certify this report was conducted by us in accordance with accepted procedures and that this material [specification information]

Remarks

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint w Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 2, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L-10 # 357

REPORT ON FINE AGGREGATE

LAB NUMBER 903016-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Line

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHECK #197

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 3/1/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand	(FM: 3.03)													
	-	0.8	5.7	17.8	36.8	59.3	84.8	97.4	99.0	OK	1.0	None	-	None
										ABSORPTION 0.7%				
Specifications:														
Par B-2.02 B-4.05	(FM: 2.50-3.10)													
	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 3/9/56)

JAMES E. MYERS LICENSED ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

PRINCIPAL ART
MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON

CONSTRUCTION

Engineer

Project

Location

Sample taken by

Time

Date

Cat or sample number	GRADING Percent sieve number							

IMPURITIES

Organic Matter	% Silt P200	Clay Lumps Shale	Unsound Particles	Coal Sticks Etc.
ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C123	ASTM C123 C123 C123 C123

CERTIFIED
We certify that above test was conducted in accordance with accepted procedures and that this is material.
Meets specification requirements.

Inspector

WICHITA LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 2, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LIC # 183

REPORT ON COARSE AGGREGATE

LAB NUMBER 903017
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #183

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp. From Co. Stockpile Time: 9:30 AM Date: 3/1/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.66)	-	76.0	97.6	98.2	98.4	98.4	98.5	98.6	98.8	-	1.2	None	None	None
										ABSORPTION		3.02%		
Specifications: Par B-2.03, B-4.05 (FM: 6.5±)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve.													

Remarks: SOURCE: CONCRETE MATERIALS & CONST. CO., MOLINE, KANSAS, PRODUCER.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES
By R. L. Phillips

WE TEST EVERYTHING UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess
File: 1

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 1, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 356

REPORT ON COARSE AGGREGATE

LAB NUMBER 902346
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 117, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #182

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 2/29/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.71)	-	22.3	97.5	97.3	98.0	98.2	98.2	98.5	98.6	-	1.4	None	None	None
										ABSORPTION		3.00%		
Specifications:														
Par B-2 03 B-4.05 (FM: 6.58)														
0-1	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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CC:

Wichita Laboratories

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1629 N. MOSLEY AVE. PHONE HOBART 4-5943

WICHITA 4, KANSAS

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Date: _____

Engr. Report No. _____

LAB NUMBER _____

(Refer to this Number)

REPORT ON _____ Project _____

Contractor _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Car or Sample Number	GRADING, Percent ... sieve number								IMPURITIES				
									Organic Matter	% Silt, P200	Clay Lumps, Shale	Lightweight Particles	Coal, Silicate, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T71	ASTM C123	ASTM C123

CERTIFIED

We certify the above test was conducted in accordance with accepted procedures and that this material meets specification requirements.

Remarks: _____

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Keller
1 K. Oil
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date March 1, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 355

REPORT ON FINE AGGREGATE

LAB NUMBER 902245-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #196

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 2/29/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.11)	-	0.1	6.3	79.4	38.7	62.3	85.6	97.7	99.0	OK	1.0	None	-	None
										ABSORPTION		0.7%		
Specifications: Par 3-2.02 3-4.05 (FM: 2.50-3.10)	-	-	0-10	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements, meets

Remarks: Mortar Strength Tests Will Follow (About 3/7/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Cu. of Sample	GRADING, Percent								IMPURITIES				
Number	ASTM 325 Mesh							Sieve Number	Organic Matter	% Silt 2200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C123 C88 Alt. No. 1	ASTM C295 C88 C142	ASTM C123 C117 C142

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

By

2 Lock Joint % Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 29, 1956

Aggr. Report No. LJC # 353

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 902329
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #195

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 2/28/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Doles Bros. Sand	(FM: 3.12)													
	-	0.4	5.4	19.1	39.8	62.6	87.2	97.5	99.0	OK	1.0	None	-	None
												ABSORPTION	0.74%	
Specifications:														
Par B-2.02 B-4.05	(FM: 2.50-3.10)													
	-	-	0-10	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED 1162 KANSAS PROFESSIONAL ENGINEER

Remarks: Mortar Strength Test will follow (About 3/7/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING Laboratories

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1820 N. MOSLEY AVE. PHONE HOBART 4-5840

WICHITA 4, KANSAS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agcy. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Cat or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136							IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
								ASTM C40	ASTM C117	ASTM C142 AASHTO T20	ASTM C88 C123	ASTM C123 C142 C127

Remarks:

CC: _____

WICHITA TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date February 29, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 354

REPORT ON COARSE AGGREGATE

LAB NUMBER 902330
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #181

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co.Stockpile Time: 10:00 AM Date: 2/28/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.73)	-	84.4	97.6	98.0	98.0	98.2	98.2	98.4	98.6	-	1.4	None	None	None
										ABSORPTION		2.70%		
Specifications:														
Per B-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained On No. 6 Sieve														

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material does not meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas. Producer.

JAMES E. MILES LICENSED PROFESSIONAL ENGINEER NO. 5

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

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1429 N. MOSLEY AVE. PHONE MOSLEY 4-8940

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____ 19__

Assn. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____

Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

| Clay or Sample Number | GRADING, Percent _____ Sieve number _____ ASTM D75 & D36 | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
Miller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 28, 1956

Aggr. Report No. LJC # 352

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 902317
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 134, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #180

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab.Insp. From Co. Stockpile Time: 10:15 AM Date: 2/27/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.77)	-	85.8	97.5	98.5	98.6	98.6	98.7	98.9	99.0	-	1.0	None	None	None
											ABSORPTION	3.01%		
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
0-10	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material does not meets specification requirements.

Remarks:
SOURCE: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WE TEST EVERYTHING

UNDER THE SUN

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1229 N. MOSLEY AVE. PHONE HOBART 4-3949

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date _____

Aggr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent passing sieve number — ASTM D 15 & C136								IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T26	Unsound Particles ASTM C88 C131	Coal Sticks Etc. ASTM C123 C123 C117

CERTIFIED

This certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date February 28, 1956

Aggr. Report No. LJC # 351

LAB NUMBER 902316-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

FINE AGGREGATE CHECK #194

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 2/27/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.09)	-	0.2	6.2	18.8	38.5	61.7	86.4	97.3	99.0	OK	1.0	None	-	None
										ABSORPTION 0.71%				
Specifications: Par B-2.02 3-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

VERIFIED
I certify that a sieve test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Mortar Strength Tests will follow (about 3/5/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Millis

WE TEST EVERYTHING

UNDER THE SUN

CC:

File:

Wichita Chemical and Testing Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

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Date

Appr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ____ sieve number ____ ASTM D75 & C136							IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C88 C123	Coal, Sticks, Etc. ASTM C123 C40 C29

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwi
2 Weller
1 KNoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date February 27, 1956

Aggr. Report No. LJC #350

REPORT ON COARSE AGGREGATE

LAB NUMBER 902295
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #179

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 2/24/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.60)	-	77.8	95.7	96.5	96.6	97.1	98.0	98.6	98.7	-	1.3	None	None	None
										ABSORPTION		2.69%		
Specifications: Par B-2.03-B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED 1162 KANSAS PROFESSIONAL ENGINEER

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Laboratories

CHEMICAL AND TESTING

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEER

CC:

File:

Date

Aggr. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor:

Project:

Engineer

Location:

Sample taken by:

Time:

Date:

Car or Sample Number	GRADING, Percent — Sieve number (ASTM D75 & C136)								IMPURITIES: Organic Matter (ASTM C40)	% Silt Passing #200 (ASTM C117)	Clay Lumps, Shale (ASTM C142 AASHTO T112)	Uncoated Particles (ASTM C123 C88 C136 C131)	Coal, Sticks, Etc. (ASTM C123 C127)

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint
Colwich
2 Weller
1 Knoll
File:
1 File

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 27, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 349

REPORT ON FINE AGGREGATE

LAB NUMBER 902294-A
(Refer to this Numbe

Contractor: Lock Joint Pipe Company
P.O. Box 127, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK
#193

Engineer: Wm. J. Weiler

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 2/24/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Co Stick Etc AST C12 C12 C22
FINE AGGREGATE														
Dolese Bros. Sand (FM 2.24)	-	0.9	6.4	19.9	40.6	71.0	87.2	97.6	99.2	OK	0.8	None	-	Non
										ABSORPTION	0.73%			
Specifications: Per B-2.02 B-4.05 (FM 2.50-3.10)	-	-	C-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 3/2/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent ... Sieve Number ... ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	
									ASTM C40	ASTM C117	ASTM C142 C136 AASHO T20	ASTM C88 C142 C40 C123	

CERTIFIED
We certify the above test was conducted by us in accordance with accepted practices and that this report is a true representation of the facts.

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

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CC: 2 Lock Joint & Colvi
2 Heller
1 Knoll
1 Hare

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 24, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 248

REPORT ON COARSE AGGREGATE

LAB NUMBER 902280
(Refer to this Numbe

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK
178

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 2/23/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc AST C12 C12 C22
COARSE AGGREGATE														
Molins 3/4" Stone (FM: 6.72)	-	82.2	98.2	98.3	98.3	98.4	98.4	98.5	98.9	-	1.1	None	None	Non
										ABSORPTION 2.86%				
Specifications: Par E-2.03	E-4.05 (FM: 6.5±)													
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 + 95% Retained on No. 4 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MILLER

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Billing

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1425 N MOSLEY AVE. PHONE ROSART 4-3846

WICHITA 4, KANSAS

REPORT ON

Project

Location

Sample taken by Time: Date:

Cal. or Sample Number	CRADING, Percent ASTM D422 & C136 Sieve Number								IMPURITIES Organic Matter ASTM C40	IMPURITIES % Silt Pass. #200 ASTM C117	IMPURITIES Clay Lumps, Shale ASTM C142 AASHO T112	IMPURITIES Unsound Particles ASTM C88 Calif. 214	IMPURITIES Coal, Shale, Etc. ASTM C123

Remarks:

CERTIFIED

We certify the above test was completed by us in accordance with accepted procedures and that this material

Wichita Testing Laboratories

By

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date February 24, 1956

Aggr. Report No. LJC # 347

LAB NUMBER 202279-b
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #192

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 2/23/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret.	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.00)	-	0.6	4.5	17.2	36.9	56.4	86.7	98.1	98.9	OK	1.1	None	-	None
										Absorption 0.92%				
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 3/2/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint @ Colwi
2 Keller
1 KWoll
1 Hess
File: 1

Date February 23, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 246

REPORT ON COARSE AGGREGATE

LAB NUMBER 902259
(Refer to this Numbe

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #177

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 2/22/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc AST C12 C12 C22
COARSE AGGREGATE CHECK														
Moline 3/4" Stone (FM: 6.71)	-	82.5	97.6	98.0	98.1	98.1	98.2	98.4	98.5	-	1.5	None	None	None
										Absorption 2.74%				
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By E. M. Myers

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Date _____

Assn. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136							IMPURITIES Organic Matter	IMPURITIES % Silt P200	IMPURITIES Clay Lumps, Shale	IMPURITIES Unsound Particles	IMPURITIES Coal, Shale, Flat

(DEFINED)

We certify the above tests were conducted by [illegible] according with accepted procedures and that the materials [illegible] specification requirements.

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

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CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 23, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 345

REPORT ON FINE AGGREGATE

LAB NUMBER 902258-B
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Liner

FINE AGGREGATE CHECK #191

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prom Co. Stockpile Time: 8:30 AM Date: 2/22/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.05)	-	0.2	7.0	18.7	36.2	59.5	85.6	97.8	99.2	OK	0.8	None	-	None
										Absorption		0.71%		
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/29/56)

JAMES E. MYERS LICENSED 1162 KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint C Colwic
2 Keller
1 Knoll
1 Moss

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date February 22, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 344

REPORT ON COARSE AGGREGATE

LAB NUMBER 902245
(Refer to this Numbe

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #176

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:45 AM Date: 2/21/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc AST C12 C12 C22
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.77)	-	87.0	97.5	98.5	98.6	98.6	98.6	98.7	98.9	-	1.1	None	None	Non
										Absorption 2.97%				
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By J. L. Myers
J. L. Myers

Wichita Chemical and Testing Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
CERTIFIED PROFESSIONAL ENGINEER

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Day or Sample Number	GRADING, Percent Above Number — ASTM No's & Class								IMPURITIES				
									Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 Class & Grade	Unsound Particles ASTM C88 Class	Coal & Lignite ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that it is reliable.

Specification requirements

Remarks:

Wichita Chemical and Testing Laboratories

By _____

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date February 22, 1956

Aggr. Report No. LJC # 343

LAB NUMBER 902244-A
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHECK
190

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 2/21/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.94)	-	0.3	4.7	15.1	33.5	57.3	84.9	97.9	99.5	OK	0.6	None	-	Non
												Absorption	0.68%	
Specifications: Par B-2.02	B-4.05 (FM: 2.50-3.10)													
	-	-	0-5	-	20-40	-	70-93	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 2/29/56)

JAMES E. MYERS LICENSED 1162 KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

CC:

Date

Spec. Report No.

REPORT ON

LAB NUMBER

(Refer to Lab Number)

Contractor:

Project

Engineer:

Location:

Sample taken by:

Time

Date

Clay or Sample Number	GRADING Percent								IMPURITIES			
	ASTM D422 & C136 Sieve number								Organic Matter	% Silt Finer #200	Clay Lumps or Shale	Deleterious Particles
									ASTM C40	ASTM C117	ASTM C142 & C330	ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with Standard Procedure and that this material

Specification requires

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Date February 21, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 341

REPORT ON FINE AGGREGATE

LAB NUMBER 902227-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kans s

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #189

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 2/20/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Pass #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.11)	-	0.2	7.7	19.9	38.3	61.8	85.0	97.8	99.4	OK	0.6	None	-	None
										Absorption 0.68%				
Specifications: Par B-4.02 B-4.05: (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Mortar Strength Tests will follow (About 2/27/56)

JAMES E. MYERS LICENSED 1162 KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

WICHITA CHEMICAL AND TESTING LABORATORIES

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1420 N. MOSLEY AVE. PHONE MOHART 4-3040

WICHITA 4, KANSAS

PRINCIPALS AND MEMBERS OF: AMERICAN CHEMICAL SOCIETY · AMERICAN SOCIETY FOR TESTING MATERIALS · AMERICAN SOCIETY OF CIVIL ENGINEERS · ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS · LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Lab. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time:

Date:

Car or sample number	GRADING, Percent — sieve number — ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps & Friable Grains	Unwashed Particles	Coal & Shale Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T112	ASTM C33 Class 2A or 2B	ASTM C87

CERTIFIED

We certify this above test was conducted by us in accordance with accepted procedures and that this report is correct.

Specification requirements:

Remarks

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1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Date February 21, 1956

Aggr. Report No. L/C # 342

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 902228
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #175

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 AM Date: 2/20/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.71)	-	82.4	97.5	98.0	98.0	98.1	98.2	98.3	98.4	-	1.6	None	None	None
										Absorption	2.89%			
Specifications: Par B-2.03 B-4.05 (FM: 6.58) 0-10 40-80 90-100	-	-	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

CHEMICAL AND TESTING Laboratories

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1429 N. MOSLEY AVE. PHONE HOward 4-5048

WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Agcy. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Project

Location

Sample taken by: Title: Date:

Car or Sample Number

GRADING, Percent — Sieve number — ASTM D75 & C136

IMPURITIES

Organic Matter	Silt P200	Clay Lumps Friable	Chert & Other Soft Particles	Coal & Lignite
ASTM C40	ASTM C117	ASTM C142 AASHO T112	ASTM C123 C330 C641	ASTM C123 C330 C641

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint # Colwich
6 Weller
1 Knoll
1 Hess

File: 1

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WICHITA 4, KANSAS

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LICENSED PROFESSIONAL ENGINEERS

Date February 20, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 340

REPORT ON COARSE AGGREGATE

LAB NUMBER 902209
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 174

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 2/17/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.55)	-	78.5	92.2	95.5	96.0	96.8	97.6	98.0	98.1	-	1.9	None	None	None
										ABSORPTION		2.69%		
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1162 PROFESSIONAL ENGINEER STATE OF KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

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1422 N. MOSLEY AVE. PHONE MOhawk 4-5848

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____ File:

Agcr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project: _____

Engineer _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Cor or Sample Marking	GRADING, Passing _____ Size & Number								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C88 C131	ASTM C123 C29 C142 C330

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements

Remarks _____

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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CC: 2 Lock Joint % Colwich
Keller
1 Knoll
Hess

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date February 20, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 339

REPORT ON FINE AGGREGATE

LAB NUMBER 902208-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #188

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 2/17/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/8"	3/4"	#4	#8	#16	#30	#50	#100	% Pass #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM 2.94)	-	0.9	4.8	15.6	32.9	56.8	85.2	98.0	99.9	OK	1.0	None	-	None
										Absorption 0.73%				
CERTIFIED We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.														
Specifications: Par B-2.02 B-4.05 (FM 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-85	92-98	-	Typical 3.0	1.0	-		0.5
FM ± 0.15														

Remarks: Mortar Strength Tests Will follow (About 2/24/56)

JAMES E. MYERS LICENSED 1162

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers

J. E. Myers

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CC:

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1428 N. MOSLEY AVE. PHONE NOBART 4-5949

WICHITA 4, KANSAS

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Date _____

Acct. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Cat or Sample Number	GRADING Percent _____ sieve number _____ ASTM D75 & C136							IMPURITIES Organic Matter ASTM C40	Mica ASTM C117	Clay Lumps Shale ASTM C142 AASHO T96	Unsound Particles ASTM C88 C89 C123 C237	Total Objec. Mat. ASTM C123 C237

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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CC: 2 Lock Joint - Colwic
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 17, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 337

REPORT ON FINE AGGREGATE

LAB NUMBER 902189-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #187

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 2/16/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.92)	-	0.7	5.2	15.9	32.2	55.8	84.7	97.8	99.0	OK	1.0	None	-	None
ABSORPTION 0.79%														
Specifications:														
Par 8-2.02 8-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-93	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED ENGINEER 1162 PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests will Follow (About 2/24/56)

R. L. Phillips

CHEMICAL AND TESTING

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1429 N. MOSLEY AVE. PHONE HOBART 4-9242

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent ____ sieve number ____ ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142, AASHO T26	Unsound Particles ASTM C88 C89 C131	Coal Sticks Etc. ASTM C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material _____ specification testing limits.

Remarks: _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date February 17, 1956

Aggr. Report No. LJC # 338

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 902190
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #173

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 9/16/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone - (FM: 6.61)	-	79.8	95.5	96.2	96.4	97.0	97.6	98.5	98.8	-	1.2	None	None	None
										ABSORPTION	2.94%			
Specifications: Par B-2.03 B-4.15 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

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RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE NOBART 4-3542

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Date

Agcy. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or sample number	GRADING, Percent — sieve number — ASTM E11 & C136									IMPURITIES: Organic Matter ASTM C40	IMPURITIES: % Silt Passing #200 ASTM C117	IMPURITIES: Clay Lumps, Shale ASTM C142 AASHO T10	IMPURITIES: Unsound Particles ASTM C88 AASHO T104	IMPURITIES: Coal Sticks, Etc. ASTM C123 C123 C227

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA TESTING & ENGINEERING LABORATORIES

By

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Wichita Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
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CC: 2 Lock Joint - Colwich
2 Keller
1 Knoll
1 Hess
File: 1

Date February 16, 1956

Aggr. Report No. LJC # 336

LAB NUMBER 902180
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

COARSE AGGREGATE CHECK #172

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 2/15/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.65)	-	77.6	95.8	97.5	97.8	98.2	98.7	99.2	99.3	-	0.7	None	None	None
										ABSORPTION		2.68%		
Specifications: Par B-2.03 B-4.05 (FM: 6.50)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Hilly

Wichita Chemical and Testing Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Date _____

Addr. Reply No. _____

CC: _____

File: _____

Bar or Sample Number	GRADING, Percent _____ Sieve Number — ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T71	ASTM C88 C88 C123	ASTM C123 C123 C123 C127

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks: _____

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date February 16, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 335

REPORT ON FINE AGGREGATE

LAB NUMBER 902179-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #136

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 2/15/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Delese Bros. Sand (FM: 2.93)	-	0.1	5.8	16.5	34.2	56.8	83.2	96.5	97.5	OK	2.5	None	-	None
										ABSORPTION		0.70%		
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10 FM: ± 0.15	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will follow (About 2/22/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Assn. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by:

Time:

Date:

Car or sample number	GRADING, Percent ASTM D75 & C136 Sieve number								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T112	Unsound Particles ASTM C88 C131	Opal Siliceous Etc. ASTM C289 C289 C289 C289

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material complies with specification requirements.

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint & Colvic
2 Heller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 15, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC 334

REPORT ON COARSE AGGREGATE

LAB NUMBER 902168
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #171

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp. From Co. Stockpile Time: 9:30 A.M. Date: 2/14/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.55)	-	70.8	94.5	97.1	97.8	98.2	98.4	98.6	98.8	-	1.2	None	None	None
										ABSORPTION		2.84%		
Specifications: Par 5-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WE TEST EVERYTHING

CC:

File:

Wichita Chemical and Testing Laboratories

Analytical Chemists · Bacteriologists · Testing Engineers

Research on Manufacturing Problems

1429 N. Mosley Ave. Phone Hobart 4-3948

Wichita 4, Kansas

Principals Are
Members Of:
American Chemical Society
American Society For Testing Materials
American Society Of Civil Engineers
Association Of Asphalt Paving Technologists
Licensed Professional Engineers

Date

Lab. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent sieve number — ASTM D75 & C136								IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C88 C131	Coal Sticks Etc. ASTM C123 C123 C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

◀◀ WE TEST EVERYTHING — UNDER THE SUN ▶▶▶

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 15, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L-C # 333

REPORT ON FINE AGGREGATE

LAB NUMBER 902167-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #185

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 A.M. Date: 2/14/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.85)	-	0.2	4.7	14.2	30.5	53.7	83.8	97.5	99.0	OK	1.0	None	-	None
										ABSORPTION 0.74%				
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/22/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3048

WICHITA 4, KANSAS

File:

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MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Cat or sample number	GRADING, Percent _____ sieve number ASTM D75 & C136							IMPURITIES Organic Matter ASTM C40	 % Silt Passing #200 ASTM C117	 Clay Lumps, Shale ASTM C142 AASHO T10	 Unsound Particles ASTM C88	 Coal, Sticks, Etc. ASTM C123 C88 C142 C87

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date February 14, 1956

Aggr. Report No. LIC # 331

REPORT ON FINE AGGREGATE

LAB NUMBER 902152-A
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~ P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK 184

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

Sample taken by: ~~Lab. Insp. From Co. Stockpile~~ Time: 8:30 A.M. Date: 2/13/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.97)	-	0.5	5.7	17.5	34.8	56.8	84.0	98.0	99.5	OK	0.5	None	-	None
										ABSORPTION 0.81%				
Specifications: Par 8-2.02 B-4.05 (FM 2.50-3.10)	-	-	0-5	-	20-40	-	70-90	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED 1162

Remarks: Mortar strength tests will follow (about 2/20/56)

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING

UNDER THE SUN

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE MCKAY 4-3945

WICHITA 4, KANSAS

MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Agg. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Title:

Date:

Cyl. or sample number	GRADING, Percent ASTM D75 & C136 Sieve number								IMPURITIES Organic Matter	% Silt Passing	Clay Lumps, Shale	Lightweight Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C123 C88 C131	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 14, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 332

REPORT ON COARSE AGGREGATE

LAB NUMBER 902153
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #170

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 2/13/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE Moline 3/4" Stone	-	72.8	(FM: 6.56) 94.6	96.8	97.0	97.4	97.8	98.4	98.6	-	1.4	None	None	None
										ABSORPTION	2.69%			
Specifications: Par B-2.03-B-4.05	0-10	40-70	(FM: 6.58) 90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.								meets					

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1162

WICHITA CHEMICAL & TESTING LABORATORIES

By

CC:

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. · PHONE HOBART 4-8268

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Abbr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____ Project _____

Contractor _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

Sample number	Cor or Core	GRADING Percent ASTM Dia & Size								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc.
										ASTM C40	ASTM C117	ASTM C142 C123 AASHO T21	ASTM C123 C142 C88 C131	ASTM C123 C142

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 329

REPORT ON FINE AGGREGATE

LAB NUMBER 902131-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 183

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 A.M. Date: 2/10/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter (ASTM C40)	% Silt P200 (ASTM C117)	Clay Lumps, Shale (ASTM C142 AASHO T10)	Unsound Particles (ASTM C235 C88 C131)	Coal Sticks, Etc. (ASTM C123 C129 C227)
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.96)	-	0.4	4.6	15.9	35.4	58.0	84.4	97.4	99.0	OK	1.0	None	-	None
										ABSORPTION 0.94%				
Specifications: Par B-2.02 - B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98		Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

Remarks: Mortar Strength Tests Will Follow (About 2/17/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOWARD 4-3048

WICHITA 4, KANSAS

PRINCIPALS AND MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time _____ Date: _____

Can or sample number	GRADING, Percent — Sieve number / ASTM Designation & Size							IMPURITIES: Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T26	Unsound Particles ASTM C88 C238 C131	Coal Slick Lite ASTM C123 C238 C131

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 330

REPORT ON COARSE AGGREGATE CHECK

LAB NUMBER 902132
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 169

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prom Co. Stockpile Time: 9:15 A.M. Date: 2/10/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.54)	-	72.0	94.0	96.5	97.0	97.5	98.3	98.8	99.0	-	1.0	None	None	None
										ABSORPTION		2.67%		
Specifications: Par B-2.03-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BOTANICOLOGISTS · TESTING ENGINEERS

RESEARCH ON MINING-MANUFACTURING PROCESSES

1424 N. MOSLEY AVE. PHONE HOBART 4-5944

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

CC:

Date: File:

Agg. Report No.

REPORT ON LAB NUMBER

(Refer to this Number)

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Char. or Sample number	GRADING: Percent ... sieve number ... Sieve Size & Class								Organic Matter D2974	% Silt D2200	Clay Lumps, Shale	Uncoated Particles	Coal, Shale, Etc.
									IMPURITIES				
									ASTM C40	ASTM C117	ASTM C142 AASHO T33	ASTM C235 C88 C131	ASTM C123 C295 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements

Remarks

WICHITA CHEMICAL & TESTING LABORATORIES

◀◀ WE TEST EVERYTHING — UNDER THE SUN ▶▶▶

CC: 2 Lock Joint @ Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 10, 1956

Aggr. Report No. LJC # 328

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 902114
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #168

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 2/9/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.60)	-	75.5	94.0	97.5	98.0	98.2	98.4	98.8	99.1	-	0.9	None	None	Non
										ABSORPTION 2.76%				
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
0-10	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Laboratories

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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1429 N. MOSLEY AVE. PHONE HOBART 4-8940

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CC:

File:

Date

Lab. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent — Sieve number — ASTM D75 & C136								IMPURITIES: Organic Matter ASTM C40	Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C88 C131	Coal Shale, Etc. ASTM C123 C127

CERTIFIED

We certify the above tests were conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA LABORATORIES

◀◀ WE TEST EVERYTHING — UNDER THE SUN ▶▶▶

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 10, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 327

REPORT ON FINE AGGREGATE

LAB NUMBER 902113-A
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~ P.O. Box 137, Colwich, Kansas
Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 182

Engineer: ~~Black & Veatch~~
Location: ~~Colwich, Kansas~~

Sample taken by: ~~Lab. Insp. Prem Co. Stockpile~~ Time: ~~8:45 A.M.~~ Date: 2/9/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (3.01)	-	0.7	6.3	18.6	38.7	61.5	77.5	98.0	99.0	OK	1.0	None	-	Non
										ABSORPTION		0.81%		
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	~~20~~	20-40	-	70-85	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/17/56)

WICHITA CHEMICAL & TESTING LABORATORIES
By R. L. Phillips

Sample Number	Gradation: Percent Retained on Sieve Number (ASTM D75 & C136)	Impurities: Organic Matter (ASTM C40); % Silt Passing #200 (ASTM C117); Clay Lumps, Shale (ASTM C142 AASHTO T112); Unsound Particles (ASTM C88 C88 C131)

CERTIFIED
We certify that above tests were conducted by us in accordance with accepted procedures

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Date February 9, 1956

Aggr. Report No. LJC # 325

LAB NUMBER 902090
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Trammission Line

FINE AGGREGATE CHECK #181

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:00 A.M. Date: 2/8/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.17)	-	0.6	6.9	20.6	40.5	63.5	87.0	97.7	99.2	OK	0.8	None	-	None
Specifications: Par 5-2.02-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.6	-	0.5
FM ± 0.15														

ABSORPTION 0.89%

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Morter Strength Tests will follow (About 2/15/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers

J. E. MYERS LICENSED 1162

CC:

Date: _____ Proj: _____

Addr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date: _____

Cat or Sample Number	GRADING, Percent _____ sieve number _____ Aster Dist. & Class								IMPURITIES				
									Organic Matter	% Silt Passing	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C88 (C131)	ASTM C123 C29 C227

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess

File: 1

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Date February 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 326

REPORT ON COARSE AGGREGATE

LAB NUMBER 202091
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #167

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 2/8/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.69)	-	69.5	96.4	97.8	98.6	98.7	98.9	99.0	99.1	-	0.9	None	None	None
										ABSORPTION 2.71%				
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

CHARLES E. MYERS CERTIFIED ENGINEER 1162 KANSAS

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

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By J. E. Myers
J. E. Myers

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136							IMPURITIES				
								Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
								ASTM C40	ASTM C117	ASTM C142 AASHO T10	ASTM C235 C88 C131	ASTM C235 C88 C227

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that the material specification requirements

Remarks:

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2 Lock Joint w Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Date February 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC 324

REPORT ON COARSE AGGREGATE

LAB NUMBER 902081
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwic, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK 166

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/7/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.65)	-	78.5	96.5	97.5	97.6	97.7	98.2	98.8	98.9	-	1.1	None	None	None
										ABSORPTION 2.80%				
Specifications: Par R-2.03 R-4.05 (FM: 6.50)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained On No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

J. E. MYERS 1162 LICENSED ENGINEER

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agcy. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number ASTM D75 & C136								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C123	ASTM C123 C29

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:

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CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Date February 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 323

REPORT ON FINE AGGREGATE

LAB NUMBER 902080-A
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~ P.O. Box 137, Colwi , Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #180

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

Sample taken by: ~~Lab. Insp. From Co. Stockpile~~ Time: 8:30 A.M. Date: 1/7/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.91)	-	0.9	5.5	14.9	31.3	55.3	85.0	97.7	99.1	OK	0.9	None	-	None
										ABSORPTION 0.71%				
Specifications: Par 8-2.02 8-4.05 (FM: 2.50-3.10) FM: ± 0.15	-	-	0-5	-	20-40	-	70-88	92-98	-	Typed	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will Follow (About 2/14/56)

JAMES E. MYERS LICENSED 1162 KANSAS ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By J. E. Myers
J. E. Myers

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File:

Date

Agcr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor: Project

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ASTM D75 & C136 sieve number							IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
								ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 C29 C123	ASTM C88 C29 C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

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CC: 2 Lock Joint & Colwi
2 Weller
1 Knoll
1 Hess
File: 1

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Date February 8, 1956

Aggr. Report No. LJC # 321

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 902068-A
(Refer to this Number

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #179

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 2/6/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coa Stick Etc. ASTM C123 C128 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.89)	-	-	2.0	3.7	38.0	57.0	87.4	97.2	98.8	OK	1.2	None	-	None
										ABSORPTION 0.61%				
Specifications: (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER 1162 STATE OF KANSAS

Remarks: Mortar Strength Tests Will Follow (About 2/13/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips
R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agcy. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Cat. or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C88 C88 C131	ASTM C123 C123 C123

Remarks

CERTIFIED
We certify the above test was made by us in accordance with accepted procedures
Authorized Signature

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

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Date February 8, 1956

PER IODIC AGGREGATE CHECK

Aggr. Report No. LJC # 322

REPORT ON COARSE AGGREGATE

LAB NUMBER 902069
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #165

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:00 A.M. Date: 2/6/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.59)	-	72.4	96.2	97.2	97.8	98.6	98.8	98.9	99.1	-	0.9	None	None	None
										ABSORPTION 2.97%				
Specifications: (FM: 6.58) Per B-2.03 B-4.05														
0-10		40-70	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips
R. L. Phillips

CC:

Date:

Mfgr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor:

Project:

Engineer:

Location:

Sample taken by:

Time:

Date:

Car or sample number	GRADING Percent ... sieve number ... ASTM D75 & C136								IMPORTITES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 ASSHO T26	Unsound Particles ASTM C88 C131	Coal Sticks Etc ASTM C123 C123 C123 C123

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

REMARKS:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwi
2 Waller
1 Knoll
1 Hess

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date February 6, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 820

REPORT ON COARSE AGGREGATE

LAB NUMBER 902053
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 164

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 A.M. Date: 2/3/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4	3/8	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4 Stone (FM: 6.61)	-	74.2	96.5	97.5	97.8	98.0	98.3	98.5	98.6	-	1.4	None	None	None
										ABSORPTION		2.64%		
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. WYARD LICENSED 1162 PROFESSIONAL ENGINEER

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

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By R. L. Phillips

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CC:

File:

Date

Assn. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location:

Sample taken by

Time

Date

Car or sample number	GRADING, Percent										Sieve number										IMPURITIES				
	ASTM D 75 & C136																				Organic Matter	% Silt Prod	Clay Lumps Shale	Deleterious Particles	Coal Shale Etc.
																					AASHO C40	ASTM C117	AASHO T112 AASHO T113	ASTM C142	ASTM C123 C88 C40 C87

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 6, 1956

Aggr. Report No. LJC # 319

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 902052-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 178

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:00 A.M. Date: 2/3/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	%Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.00)	-	0.5	5.0	15.8	35.6	59.2	85.5	98.0	99.5	OK	0.5	None	-	None
										ABSORPTION 0.71%				
Specifications:														
Par B 2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

JAMES E. MILLER LICENSED 1162 KANSAS PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests Will Follow (About 2/10/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3943

WICHITA 4, KANSAS

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Date

Lab Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or Sample Number	GRADING, Percent — Sieve Number — ASTM D 422 & C136								IMPURITIES: Organic Matter (ASTM C40); % Silt Passing #200 (ASTM C117); Clay Lumps, Shale (ASTM C142, AASHO T112); Unsound Particles (ASTM C88, C88, C123); Coal, Shale, Lite (ASTM C123, C123)

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL AND TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 2, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 318

REPORT ON COARSE AGGREGATE

LAB NUMBER 902021
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Line

COARSE AGGREGATE CHECK #163

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Inspector from Co. Stockpile Time: 11:00 A.M. Date: 2/1/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.70)	-	79.0	97.8	98.4	98.5	98.6	98.7	98.8	99.0	-	1.0	None	None	None
										ABSORPTION 2.97%				
Specifications: Par S-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WE TEST EVERYTHING — UNDER THE SUN

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

2 Lock Joint @ Colwich
CC: Waller
1 Knoll
1 Hess

File: 1

Date February 2, 1956

Aggr. Report No. LJC #317

LAB NUMBER 902020-a
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHECK # 177

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:00 A.M. Date: 2/1/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.10)	-	0.1	5.2	17.8	39.1	62.6	87.0	98.8	99.1	OK	0.9	None	-	None
										ABSORPTION	0.88%			
Specifications: Per B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/8/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Testing Laboratories

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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1829 N. MOSLEY AVE. PHONE HOBART 4-6248

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Addr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Construction _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Title _____ Date: _____

Sample number	CRADING, Percent ... above Number ... ASTM Designation								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T112	ASTM C235 or C142	ASTM C123 C117 C87

CERTIFICATION

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

RECOMMENDATIONS _____

WICHITA TESTING LABORATORIES

By _____

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 1, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 315

REPORT ON FINE AGGREGATE

LAB NUMBER 901321-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 127, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #176

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 1/31/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand	(FM: 2.95)													
	-	0.1	5.0	16.2	34.5	57.8	84.2	97.5	99.0	OK	1.0	None	-	None
										ABSORPTION 0.69%				
Specifications:														
Par 2.02	-	4.05 (FM:	2.50-3.10)											
	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Mortar Strength Tests will follow (About 2/8/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. · PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date

Spec. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Project

Location

Engineer

Sample taken by: Time: Date:

Dist. or Sample Number	GRADING, Percent — Sieve number (ASTM D75 & C136)								IMPURITIES				
									% Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Lignite, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T21	ASTM C123 C88	ASTM C123 C88 C117

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

◀◀ WE TEST EVERYTHING — UNDER THE SUN ▶▶▶

CC: 2 Lock Joint e Colwich
2 Keller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date February 1, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 316

REPORT ON COARSE AGGREGATE

LAB NUMBER 901322
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Trans. Lines

COARSE AGGREGATE CHECK #162

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/31/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone	-	(FM: 6.66) 77.0	97.6	98.1	98.2	98.3	98.4	98.7	98.8	-	1.2	None	None	None
										ABSORPTION	2.71%			
Specifications: Par B-2.03,	B-4.05	(FM: 6.58)												
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1162 PROFESSIONAL ENGINEER STATE OF KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WICHITA CHEMICAL AND TESTING LABORATORIES

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3242

WICHITA 4, KANSAS

PRINCIPALS AND MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

Date _____

Lab. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Supervisor _____ Location _____

Sample taken by: _____ Time _____ Date _____

Bar or sample number	GRADING Percent ... sieve number (ASTM D2 & C136)										IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Friable Shale ASTM C142 AASHO T112	Deleterious Particles ASTM C123 C88 C40 C127	Coal, Sticks, Etc. ASTM C123 C88 C40 C127

We certify the above test was conducted by us in accordance with accepted procedures and that the material specification requirements.

By _____

CC: 2 Lock Joint ✓ Colwic
2 Waller
1 Knoll
1 Ness

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 313

REPORT ON FINE AGGREGATE

LAB NUMBER 901309-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 175

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Lump. Prom Co. Stockpile Time: 10:50 A.M. Date: 1/30/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand	-	0.2	4.7	16.4	34.4	57.4	84.0	97.5	99.0	OK	1.0	None	-	None
		(FM: 2.95)								ABSORPTION	0.94%			
Specifications: Par B-2.02	3-4.05	(FM: 2.50-3.10)												
	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Morter Strength Tests will follow (About 2/6/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

File:

Date

Assn. Report No.

REPORT ON

LAB NUMBER

(Refer to this Number)

Construction

Project

Engineer

Location

Sample taken by

Time:

Date:

| Use or Sample Number | GRADING Percent ... Sieve Number ... ASTM D422 & C136 | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwi
ch
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 31, 1956

Aggr. Report No. L-12 # 314

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 901309
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 127, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #161

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:30 A.M. Date: 1/30/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone	(FM: 6.53) -	67.7	95.2	97.4	97.8	97.9	98.3	98.9	99.0	-	1.0	None	None	None
											ABSORPTION	2.79%		
Specifications: Par B-2.03, B-4.05	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve.													

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

meets

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 1-7948

WICHITA 4, KANSAS

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Date _____

Agcy. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Char. or Sample Number	GRADING, Percent _____ Sieve Number / ASTM D 422								Organic Matter ASTM C40	% Silt D2109 ASTM D422	Clay Lumps, Shale ASTM C142 C40 C136 D4318 T20	Unsound Particles ASTM C88 C40 C131	Coal Sticks Etc. ASTM C123 C29

IMPURITIES

Remarks: _____

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knodl
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS
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WICHITA 4, KANSAS

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

Aggr. Report No. LJC # 312

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 901294
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK #160

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 A.M. Date: 1/28/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.73)	-	81.0	98.1	98.5	98.6	98.7	98.8	98.8	99.0	-	1.0	None	None	None
										ABSORPTION 2.71%				
Specifications: Par B-2.03, B-4.05 (FM: 6.58)														
C-10	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOsart 4-5942

WICHITA 4, KANSAS

PRINCIPALS ARE
MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Abst. Report No.

REPORT ON

LAB NUMBER

(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Car or sample number	GRADING, Percent ... sieve number (ASTM 2419 & C136)								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Mica, Etc.
									ASTM C40	ASTM C117	ASTM C142 C88 AASHO T10	ASTM C123 C88	ASTM C123 C88

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements

Remarks

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

Aggr. Report No. LJC #311

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 901293-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #174

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:15 A.M. Date: 1/28/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.00)	-	0.6	6.1	17.2	33.7	59.0	85.4	98.0	99.0	OK	1.0	None	-	None
										ABSORPTION 0.96%				
Specifications: Per B-2.02 B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-93	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/6/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

cc:

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE MOSART 4-3949

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agcy. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Supplier _____ Location _____

Sample taken by: _____ Time: _____ Dated: _____

Mark or Number	GRADING, Percent ... sieve number (ASTM Dwg & Code)								IMPURITIES: Organic Matter (ASTM C40); % Silt P200 (ASTM C117); Clay Lumps, Shale (ASTM C142 AASHO T71); Unsound Particles (ASTM C88 C88 C131); Coal, Sticks, Etc. (ASTM C123 C142 C29)

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

BY _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwic
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

Aggr. Report No. LJC # 310

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 901291
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK # 159

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/27/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
Coarse Aggregate														
Moline 3/4" Stone (FM: 6.65)	-	78.0	97.2	97.4	97.5	97.7	98.4	99.2	99.3	-	0.7	None	None	Non
										ABSORPTION 2.74%				
Specifications: Par B-2.03 - B-4.05	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. M... LICENSED ... 2102

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Date

Agcy. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Project

Location

Sample taken by

Time

Date

Can or sample number	GRADING, Percent — Sieve number								IMPURITIES				
									Organic Matter	% Silt	Clay Lumps, Shale	Unsound Particles	Coal Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T71	ASTM C123 C87 C851	ASTM C123 C88 C851 C807

CERTIFIED

The material above tested was conducted by
in accordance with accepted procedures
and may this material
specification requirements

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwic
2 Weller
1 Knoll
1 Ness
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

Aggr. Report No. LJC #309

LAB NUMBER 901290-a
(Refer to this Number)

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHECK # 173

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 A.M. Date: 1/27/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136)								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM 3.02)	-	0.6	4.9	17.7	36.6	59.2	85.1	97.5	99.0	OK	1.0	None	-	Non
										ABSORPTION 0.88%				
Specifications: Par B-2.02, B-4.05	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 2/3/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R.L. Phillips

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOLLY 4-8548

WICHITA 4, KANSAS

MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Lab Report No. _____

REPORT ON _____

LAB NUMBER _____
(Refer to this Number)

Project _____

County Test _____

Location _____

Engineer _____

Sample Taken by: _____ Time _____ Date: _____

Sample Number	Grading Percent ASTM ____ Sieve Number									Impurities				
										Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
										ASTM C40	ASTM C117	ASTM C142 A.A.S.H.O. T 10	ASTM C88 C89 C29	ASTM C123 C29 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material complies with specification requirements.

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 307

REPORT ON FINE AGGREGATE

LAB NUMBER 901276-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 172

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:15 A.M. Date: 1/26/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.94)	-	-	4.1	15.4	34.4	59.4	84.5	97.6	99.0	OK	1.0	None	-	None
										ABSORPTION 0.71%				
Specifications: Per B-2.02 B-4.05	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYL... LICENSED 1162 KANSAS PROFESSIONAL ENGINEER

Remarks: Mortar Strength Tests Will Follow (About 2/3/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phill...

CC:

Date:

Assr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Location:

Sample taken by

Date:

Car or Sample Number	GRADING, Percent ___ coarse ___ fine above number — ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 C88 AASHO T10	ASTM C88 C123	ASTM C123 C123 C123 C123

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

LICENSES

WICHITA TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwic
2 Weller
1 Knoll
1 Ness
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 30, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 308

REPORT ON COARSE AGGREGATE

LAB NUMBER 901277
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~ P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

COARSE AGGREGATE CHECK# 158

Sample taken by: ~~Lab. Insp. From Co. Stockpile~~ Time: 9:30 A.M. Date: 1/26/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.75)	-	84.0	97.5	98.5	98.7	98.7	98.7	99.2	99.2	-	0.8	None	None	None
										ABSORPTION 2.89%				
Specifications: Par B-2.03 B-4.05	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements does not meet.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3946

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

REPORT ON _____

LAB NUMBER _____
(Refer to this Number)

Project: _____

Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or Sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136								IMPURITIES Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T71	ASTM C123 C88 C131	ASTM C123 C88 C29 C127

Remarks: _____

CERTIFIED

We certify the above tests were made by us or under our supervision and that this material complies in all respects with specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Keller
1 Knoll
1 Hess
File

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 26, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 305

REPORT ON FINE AGGREGATE

LAB NUMBER 901266-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #171

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Prew Co Stockpile Time: 9:00 AM Date: 1/25/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.96)	-	0.2	6.4	17.7	35.0	57.2	83.1	96.0	98.8	-	1.2	None	-	None
										ABSORPTION 0.99%				
Specifications: Par B-2.02 B-4.05	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Beete

Remarks: Mortar Strength Tests will follow (Abt 2/1/56)

JAMES E. PHILLIPS LICENSED PROFESSIONAL ENGINEER 1162

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-5949

WICHITA 1, KANSAS

Date

Agge. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Location

Date:

| Impurities | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colvic
2 Weller
1 Knoll
1 Hesse
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 26, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 306

REPORT ON COARSE AGGREGATE

LAB NUMBER 901267
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 157

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. from Co. Stockpile Time: 9:30 A.M. Date: 1/25/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.60)	-	72.0	96.5	98.0	98.2	98.3	98.5	98.7	98.8	-	1.2	None	None	None
										ABSORPTION 2.69%				
Specifications: Per B-2.03, B-4.05														
0-10	40-80	90-100	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:
Source: Concrete Materials & Const. Co.; Moline, Kansas

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 23, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 304

REPORT ON COARSE AGGREGATE

LAB NUMBER 901229
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #156

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 A.M. Date: 1/20/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.69)														
	-	78.8	97.0	97.8	98.2	98.8	99.1	99.4	99.5	-	0.5	None	None	None
										ABSORPTION 2.99%				
Specifications: Par B-2.03, B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15		98% Retained on No. 6 Sieve.											

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks:
Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By _____
R. L. Phillips

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 23, 1956

PERIODIC Aggregate CHECK

Aggr. Report No. LJC # 303

REPORT ON FINE AGGREGATE

LAB NUMBER 901228-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #170

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. Frow Co. Stockpile Time: 8:15 A.M. Date: 1/20/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.08)														
	-	0.7	5.7	18.5	38.5	61.0	85.5	97.8	99.0	OK	1.0	None	-	None
										ABSORPTION 0.91%				
Specifications: Par D-2.02 B-4.05 (FM: 2.50 - 3.10)														
	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
I certify the above test was conducted by me or under my supervision in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests will Follow (About 1/27/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By _____
R. J. Phillips

"WE TEST EVERYTHING" UNDER THE SUN

CC:

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CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

File:

Date

Agpr. Report No.

REPORT ON

LAB NUMBER
(Refer to this Number)

Contractor

Project

Engineer

Location

Sample taken by: Title: Date:

Car or Sample Number	GRADING Percent ASTM D75 & C136 Sieve number								IMPURITIES Organic Matter ASTM C40	% Silt Finer than 200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T20	Unsound Particles ASTM C88 C123 C131	Coal, Shale, Etc. ASTM C123 C127

CERTIFIED
that the above test data conducted by
us is in accordance with accepted procedure
with (or) this material
Specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint Colwich
Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 20, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 301

REPORT ON FINE AGGREGATE

LAB NUMBER 901211-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK # 169

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 A.M. Date: 1/19/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/8"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.06)	-	0.7	5.3	18.7	38.7	60.6	85.2	97.0	98.8	OK	1.2	None	-	None
										ABSORPTION 0.70%				
Specifications: Par B-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/27/56)

1.62

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Title:

Date

Agg. Report No.

LAB NUMBER

(Refer to this Number)

REPORT ON

Location

From:

Identification

To:

Sample taken by

Time:

Date:

Cat or sample number	GRADING Passing sieve number								IMPURITIES				
									Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM D40	ASTM C117	ASTM C142 AASHO T20	ASTM C123 C88 C641	ASTM C123 C88 C641

ASTM D75 & C136

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

UNDER THE SUN

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joints Colwi
2 Weller
1 Knoll
1 Hess
File: 1

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 20, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 302

REPORT ON COARSE AGGREGATE

LAB NUMBER 901212
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK # 155

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/19/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone - (FM: 6.60)	-	70.3	97.4	98.0	98.2	98.4	98.7	99.0	99.1	-	0.9	None	None	None
										ABSORPTION 2.99%				
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Ref. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Location

Sample taken by: Time: Date:

Sample Number	Grading, Percent Passing Sieve Number								Impurities				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale Etc.
									ASTM C40	ASTM C117	ASTM C123 AASHO T113	ASTM C123 C88 C142	ASTM C123 C123 C87

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that all conclusions and specifications recommended.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 18, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 297

REPORT ON FINE AGGREGATE

LAB NUMBER 90119/1-6
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #167

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 A.M. Date: 1/17/56

Car or sample number	GRADING, Percent Retained — sieve number, ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand: (FM: 2.87)	-	1.0	5.2	14.6	31.2	54.4	82.9	97.8	99.2	OK	0.8	None	-	None
										ABSORPTION 0.21%				
Specifications: Par B 2.02, B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	-	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. PHILLIPS LICENSED ENGINEER 1162 KANSAS

Remarks: Mortar Strength Tests will follow (About 1/25/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By _____
R. L. Phillips

CC:

Date

Asst. Region No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Project

Location

Sample taken by: Time: Date:

Char. of Sample Number	GRADING, Percent ASTM DFS # C136 Sieve number								IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T26	Unsound Particles ASTM C88 C295 C40 C123	Coal, Sticks, Etc. ASTM C123 C40 C87

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 18, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. I.C # 298

REPORT ON COARSE AGGREGATE

LAB NUMBER 901195
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #153

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:30 A.M. Date: 1/17/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.42)														
	-	58.8	90.9	96.5	98.1	98.4	98.6	98.8	98.9	-	1.1	None	None	Non
										ABSORPTION	2.63%			
Specifications:														
Par B-2.03 B-4.05 (FM: 6.5#)														
C-10 40-80 90-100 -			-	-	-	-			-	-	1.5	0.2%	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Cor or Sample number	GRADING, Percent ASTM D75 & C136									IMPURITIES Organic Matter	% Silt, Clay T200	Clay Lumps, Shale	Unwashed Particles	Coal, Shale, Etc.

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date January 18, 1956

Aggr. Report No. LJC # 299

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 901196-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 168

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/18/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.85)														
	-	0.3	2.7	11.9	31.4	56.5	85.0	97.5	99.0	OK	1.0	None	-	Non
										ABSORPTION 0.89%				
Specifications: Par B-2.02 B-4.05 (FM: 2.50-3.10)														
	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
	FM ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED ENGINEER

Remarks: Mortar Strength Tests Will Follow (About 1/25/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Lab. Report No. _____

CAR NUMBER _____
(Refer to this Number)

REPORT ON _____

Project _____

Contractor _____

Location _____

Engineer _____

Sample taken by _____ Time _____ Date _____

Car or sample number	GRADING, Passing _____ Sieve number _____ Retained on _____							IMPURITIES				
								Organic Matter	Silt #200	Clay Lumps, Shale	Decomp. Particles	Coal, Sticks, Etc.
								ASTM C40	ASTM C117	ASTM C142 AASHO T26	ASTM C123 C88 C142	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material

specification requirements.

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Wess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date January 18, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 300

REPORT ON COARSE AGGREGATE

LAB NUMBER 901197
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 154

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:15 A.M. Date: 1/18/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Pass #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline	3/4" Stone (FM: 6.62)													
	-	70.7	97.5	98.5	98.6	98.8	98.9	99.0	99.1	-	0.9	None	None	Non
										ABSORPTION 2.65%				
Specifications:														
Par B-2.03, B-4.05 (FM: 6.5%)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By

B. L. Phillips

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOSKINS 4-5942

WICHITA 4, KANSAS

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

CC: 2 Lock Joint @ Colwic
2 Weller
1 Knoll
1 Hess
File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date January 16, 1956

Aggr. Report No. LJC # 296

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 901154
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 152

Engineer: ~~Black & Veatch~~

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:30 A.M. Date: 1/13/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.58)	-	72.8	96.0	97.0	97.5	97.8	98.2	98.6	99.0	-	1.0	None	None	None
											ABSORPTION 2.63%			
Specifications: Par B-2.03, B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM ± 0.15 — 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co. Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Sample number	Grading, Percent								Impurities				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C123 C88 C142	ASTM C88 C123 C142	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint - Colwich
2 Keller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 16, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 295

REPORT ON FINE AGGREGATE

LAB NUMBER 901153-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

FINE AGGREGATE CHECK #166

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 1/13/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								IMPURITIES				
	3/4	3/8	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.80)	-	0.8	4.1	13.5	29.6	52.9	81.5	97.4	99.0	OK	1.0	None	-	None
										ABSORPTION 0.97%				
Specifications: Par B-2.02; B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/20/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · MOTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1422 N. MOSLEY AVE. PHONE NOBART 4-3942

WICHITA 4, KANSAS

Date _____

Agcr. Report No. _____

REPORT ON _____ LAB NUMBER _____

(Refer to this Number)

Project _____

Location _____

Sample taken by _____ Time: _____ Date: _____

Cor or Sample Number	GRADING, Percent _____ sieve ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Shale, %
									ASTM C40	ASTM C117	ASTM C142 AASHO T20	ASTM C88 C87 C141	ASTM C123 C123 C295 C237

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedure and that this material specification requirements

Results: _____

WICHITA ENGINEERING & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint © Colwic
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 294

REPORT ON COARSE AGGREGATE

LAB NUMBER 901139
(Refer to this Number)

Contractor: Lock Joint Pipe Co
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #151

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 A.M. Date: 1/12/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.59)	-	65.3	97.8	98.8	98.9	99.0	99.1	99.2	99.3	-	0.7	None	None	None
										ABSORPTION 2.89%				
Specifications: Par B- 2.03, B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. D. Phillips

CC:

File:

Date

Agg. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Cer. or Sample Number	GRADING, Percent ... sieve number ... Sieve Nos. & Size									IMPURITIES				
										Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Lignite, Etc.
										ASTM C40	ASTM C117	ASTM C142 AASHO T11	ASTM C123 C88 C141	ASTM C123 C40 C87

Remarks:

CERTIFIED

We certify the above results obtained by us on samples submitted and identified as to source and kind of this material.

Respectfully submitted,

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 13, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC # 291

REPORT ON FINE AGGREGATE

LAB NUMBER 901125-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 164

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 11:00 A.M. Date: 1/11/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.01)	-	0.7	5.3	17.0	35.8	59.2	85.4	97.8	98.9	OK	1.1	None	None	None
										ABSORPTION 0.99%				
Specifications: Par B-2.02 - B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Mortar Strength Tests Will Follow (About 1/18/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3949

WICHITA 4, KANSAS

PRINCIPALS ARE MEMBERS OF: AMERICAN CHEMICAL SOCIETY; AMERICAN SOCIETY FOR TESTING MATERIALS; AMERICAN SOCIETY OF CIVIL ENGINEERS; ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS; LICENSED PROFESSIONAL ENGINEERS

CC:

File:

Date

Aggr. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING, Percent ___ sieve number — ASTM D75 & C136							

IMPURITIES				
Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C235 C88 C51	ASTM C123 C123 C227

CERTIFIED
We certify the tests listed were conducted by us in accordance with accepted procedure and that this material specification requirements.

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colwic
2 Keller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 13, 1956

Aggr. Report No. LJC # 292

PERIODIC AGGREGATE CHECK

REPORT ON COARSE AGGREGATE

LAB NUMBER 901126
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 150

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 1:30 P.M. Date: 1/11/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	# 4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.54)	-	63.5	97.2	98.6	98.7	98.8	98.8	98.9	99.0	-	1.0	None	None	None
										ABSORPTION 2.97%				
Specifications: Par 2-2.03, 2-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM: ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas. Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

WE TEST EVERYTHING ♦ ♦ ♦ UNDER THE SUN ♦ ♦ ♦

CC:

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

File:

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MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	Silt P200 % ASTM C117	Clay Lumps, Shale AASHO T10 ASTM C142	Unsound Particles ASTM C88 C123 C131	Coal Sticks Etc. ASTM C123 C227

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

◀ ◀ WE TEST EVERYTHING — UNDER THE SUN ▶ ▶ ▶

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 13, 1956

Aggr. Report No. LJC # 293

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 901138
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Line

FINE AGGREGATE CHECK # 165

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 1/12/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Delsea Bros. Sand (FM: 3.03)	-	0.1	2.8	19.8	38.4	60.2	84.5	97.5	99.2	OK	0.8	None	-	None
												ABSORPTION 0.72%		
Specifications: Par B-2.02, B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Typel	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER 11902

Remarks: Mortar Strength Tests Will Follow (Abo t 1/20/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By

Date _____

Labs. Report No. _____

LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Char. or Sample Number	GRADING Percent ASTM D 75 & C136 sieve number								IMPURITIES Organic Matter ASTM C40	IMPURITIES SM P200 ASTM C117	IMPURITIES Clay Lumps, Shale ASTM C142 AASHO T112	IMPURITIES Uncoated Particles ASTM C123 C123 C123 C142	IMPURITIES Coal, Silicas, Etc. ASTM C123 C123 C123 C142

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements

Remarks

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint & Colvin
2 Keller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 11, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #290

REPORT ON COARSE AGGREGATE

LAB NUMBER 901104
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #149

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 10:15 A.M. Date: 1/10/56

Car or sample number	GRADING, Percent Retained sieve number — ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.65)	-	80.6	96.4	96.6	97.0	97.5	97.[illegible]	98.8	99.2	-	0.8	None	None	None
										ABSORPTION 2.59%				
Specifications: Par B-2.03, B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

JAMES E. MYERS LICENSED 1162 PROFESSIONAL ENGINEER STATE OF KANSAS

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CC:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

File:

PRINCIPALS ARE
MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Our or sample number	GRADING, Percent _____ sieve number ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T19	ASTM C88 (Mg)	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements

By _____

WICHITA CHEMICAL & TESTING LABORATORIES

WE TEST EVERYTHING UNDER THE SUN

Wichita CHEMICAL AND TESTING Laboratories
ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS
RESEARCH ON MANUFACTURING PROBLEMS
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WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint - Colwich
2 Weller
1 Knoll
1 Hess
File: 1

PERIODIC AGGREGATE CHECK

Date January 11, 1956

Aggr. Report No. LJC #269

REPORT ON FINE AGGREGATE

LAB NUMBER 901103-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHECK # 163

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/10/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Pet. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.98)	-	0.1	6.2	17.2	34.3	57.8	84.5	97.6	99.2	OK	0.8	None	-	None
										ABSORPTION 0.96%				
Specifications: Par P-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	C-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/18/56)

WICHITA CHEMICAL & TESTING LABORATORIES
By R. L. Phillips

CC:

Title:

Wichita Chemical and Testing Laboratories

ANALYTICAL CHEMISTS · SOILS TECHNOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1629 N. MOSLEY AVE. PHONE HOBART 4-5946

WICHITA 4, KANSAS

PRINCIPALS ARE
MEMBERS OF:
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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date

Dept. Report No.

LAB NUMBER
(Refer to this Number)

REPORT ON

Contractor

Project

Engineer

Location

Sample taken by

Time

Date

Our sample number	GRADING, Percent — Sieve Number — ASTM D75 & D35								IMPURITIES				
									Organic Matter	% Silt Passing #200 Sieve	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C123 AASHO T11	ASTM C88 C88 C123	ASTM C123 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks:

WICHITA CHEMICAL AND TESTING LABORATORIES

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint - Colvic
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS
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1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 10, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #287

REPORT ON FINE AGGREGATE

LAB NUMBER 901038-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK 162

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 A.M. Date: 1/9/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 2.91)	-	0.3	4.7	15.6	33.6	56.7	82.4	97.8	99.2	OK	0.8	None	-	None
										ABSORPTION 0.89%				
Specifications: Par B-2.02 B-4.05 (FM 2.50 - 3.10)	-	-	0-5	-	20-0	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
(FM: ± 0.15)														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER STATE OF KANSAS

Remarks: Mortar Strength Tests Will Follow (About 1/16/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

Wichita Testing Laboratories

CHEMICAL AND TESTING

ANALYTICAL CHEMISTS · BIOTECHNOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. · PHONE HOBART 4-5942

WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC:

Date _____ File _____

Abs. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time _____ Date _____

Cat or Sample Number	GRADING, Percent Passing Sieve Number								IMPURITIES			
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sl.-Sp. Gr.
									ASTM C40	ASTM C117	ASTM C142 C123 C88 T210	ASTM C131 C88 C127	ASTM C123 C29 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

Remarks: _____

WICHITA CHEMICAL LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint - Colwich
CC: 2 Keller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

PERIODIC AGGREGATE CHECK

Date January 10, 1956

Aggr. Report No. LJC #288

REPORT ON COARSE AGGREGATE

LAB NUMBER 901089
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #148

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 AM Date: 1/9/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone: (FM: 6.73)	-	85.0	97.6	98.2	98.3	98.3	98.4	98.5	98.6	-	1.4	None	None	None
										ABSORPTION 2.64%				
Specifications: Par B-2.03, B-4.05	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures, and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Agg. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by: _____ Time: _____ Date: _____

Car or Sample Number	GRADING, Percent — Sieve number (ASTM D75 & C136)									IMPURITIES: Organic Matter (ASTM C40)	% Silt P200 (ASTM C117)	Clay Lumps, Shale (ASTM C142 & AASHO T112)	Unsound Particles (ASTM C88 C89 C131)	Coal Shale Etc. (ASTM C123 C123 C127)

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

By _____

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS - BACTERIOLOGISTS - TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

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LICENSED PROFESSIONAL ENGINEERS

Date January 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #285

REPORT ON FINE AGGREGATE CHECK

LAB NUMBER 901071-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #161

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Inspector From Co. Stockpile Time: 8:15 AM Date: 1/6/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.04)														
	-	0.7	7.0	19.1	37.5	60.3	81.0	98.0	99.0	OK	1.0	None	-	None
										ABSORPTION 0.78%				
Specifications: Par B 2.02, B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/13/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

IMPURITIES				
Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Sticks, Etc.
ASTM C40	ASTM C117	ASTM C142 AASHTO T96	ASTM C88	ASTM C123 C29 C127

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 LockJoint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 9, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #286

REPORT ON COARSE AGGREGATE

LAB NUMBER 901070
(Refer to this Number)

Contractor: Lock Joi t Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK #145

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:45 A.M. Date: 1/6/56

Car or sample number	GRADING, Percent Retained sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.57)	-	66.5	97.5	98.0	98.3	98.5	98.8	99.2	99.2	-	0.7	None	None	None
										ABSORPTION 2.58%				
Specifications: Par B-2.03 B-4.05 (FM: 6.58)	0-10		40-80	90-100	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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WICHITA 4, KANSAS

Date _____

Assn. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Project _____

Location _____

Sample taken by _____ Time _____ Date _____

Cat. or Sample Number	GRADING, Percent — Sieve Number — ASTM D75 & C136									IMPURITIES				
										Organic Matter	% Silt Passing #200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
										ASTM C40	ASTM C117	ASTM C123 AASHO T26	ASTM C88 C88 C131	ASTM C123 C123 C227

CERTIFIED

We certify the above test was conducted by us in accordance with accepted procedures and that this material stands specification requirements

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwic
CC: Weller
1 Knoll
1 Hess
File: 1

Wichita CHEMICAL AND TESTING Laboratories

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 6, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #284

REPORT ON COARSE AGGREGATE

LAB NUMBER 901058
(Refer to this Number

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK 144

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:15 A.M. Date: 1/5/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.73)	-	84.3	97.5	97.8	97.9	98.0	98.4	98.7	98.8	-	1.2	None	None	None
										ABSORPTION 2.84%				
Specifications: Par B-2.03, B-4.05 (FM: 6.58)	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas; Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

4 4 WE TEST EVERYTHING

UNDER THE SUN

CHEMICAL AND TESTING Laboratories

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WICHITA 4, KANSAS

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Date

Agg. Report No.

LAB NUMBER

(Refer to this Number

REPORT ON

Contractor: Project:

Engineer: Location:

Sample taken by: Time: Date:

Car or sample number	GRADING Percent — sieve number — ASTM D75 & C136								IMPURITIES Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T26	Unsound Particles ASTM C88 C131	Coal Shale Etc. ASTM C123 C136 C330

CERTIFIED

We certify the above tests were conducted by us in accordance with accepted practices and that this material shall conform to specification requirements.

Remarks:

WICHITA TESTING LABORATORIES

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess
File:
1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 6, 1956

Aggr. Report No. LJC #283

PERIODIC AGGREGATE CHECK

REPORT ON FINE AGGREGATE

LAB NUMBER 901657-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #160

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:15 AM Date: 1/5/56

Car or sample number	GRADING, Percent Retained — ASTM D75 & C136 sieve number								% R.t.	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.04)	-	0.3	5.8	17.5	36.4	60.0	86.4	98.2	99.3	OK	0.7	None	-	None
										ABSORPTION 0.64%				
Specifications:														
Par B-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
FM: ± 0.15														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements

Remarks: Mortar Strength Tests will follow (About 1/13/56)

JAMES E. M... LICENSED ... 1162

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

CC: 2 Lock Joint @ Colwi
2 Weller
1 Knoll
1 Hess
File: 1

Date January 5, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #281

REPORT ON FINE AGGREGATE

LAB NUMBER 9010A-a
(Refer to this Number

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

FINE AGGREGATE CHCK # 159

Sample taken by: Lab Insp. From Co. Stockpile Time: 8:45 A.M. Date: 1/4/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks Etc. ASTM C123 C123 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.07)	-	0.3	4.3	17.1	37.1	60.6	86.5	98.0	99.2	OK	0.8	None	-	Non
										ABSORPTION 0.71%				
Specifications: Par B-2.02, B-4.05 (FM: 2.50-3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/11/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By

WE TEST EVERYTHING — UNDER THE SUN

2 Lock Joint @ Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 5, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #282

REPORT ON COARSE AGGREGATE

LAB NUMBER 901045
(Refer to this Number)

Contractor: ~~Lock Joint Pipe Co.~~
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE AGGREGATE CHECK #143

Engineer: ~~Black & Veatch~~

Location: ~~Colwich, Kansas~~

Sample taken by: ~~Lab. Insp. From Co. Stockpile~~ Time: ~~9:45 A.M.~~ Date: ~~1/4/56~~

Car or sample number	GRADING, Percent ~~Retained~~ sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% R t. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.72)	-	83.5	97.0	97.5	98.0	98.4	98.8	99.0	99.1	-	0.9	None	None	N.n
										ABSORPTION 2.46%				
Specifications:														
Par B-2.03 B4.05 (FM: 6.58)														
0-10 40-80 90-100	-	-	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 - 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete materials & Const. Co. Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

| IMPURITIES | | |

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
Weller
1 Knoll
1 Ross

File: 1

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LICENSED PROFESSIONAL ENGINEERS

Date January 4, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #279

REPORT ON FINE AGGREGATE

LAB NUMBER 901029-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK #158

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 8:30 AM Date: 1/3/56

Car or sample number	GRADING, Percent Retained ASTM D75 & C136 sieve number								% Ret. #200	IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100		Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.04)	-	0.1	7.0	19.3	37.7	59.0	83.5	97.4	99.0	OK	1.0	None	-	None
										ABSORPTION 0.96%				
Specifications: Par B-2.02, B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	Type I 3.0		1.0	-	0.5
	FM ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material specification requirements. meets

Remarks: Mortar Strength Tests Will Follow (About 1/11/56)

JAMES E. MYERS LICENSED 1462

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

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Date _____

Agcr. Report No. _____

LAB NUMBER _____
(Refer to this Number)

REPORT ON _____

Project: _____

Location _____

Engineer _____

Contractor _____

Sample taken by _____ Time: _____ Date: _____

Car or Sample Number	GRADING Percent ... Sieve number ... ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Soft Sh. Etc.
									ASTM C40	ASTM C117	ASTM C142 C88 AASHO T19	ASTM C88 C88	ASTM C123 C88 C641

CERTIFIED

We certify the above a test was conducted by us in accordance with accepted procedures and that this material specification requirements.

UNDER THE SUN

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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LICENSED PROFESSIONAL ENGINEERS

Date January 4, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. L.J.C. #280

REPORT ON COARSE AGGREGATE

LAB NUMBER 901030
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
COARSE AGGREGATE CHECK # 143

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/3/56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE Moline 3/4" Stone (FM: 6.79)	-	88.0	97.8	98.5	98.6	98.6	98.7	98.7	98.7	-	1.3	None	None	None
										ABSORPTION 2.94%				
Specifications: Par B-2.03, B-4.05 (FM: 6.58) 0-10 40-80 90-100	-	-	-	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
FM ± 0.15 - 98% Retained on No. 6 Sieve.														

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By R. L. Phillips

CHEMICAL AND TESTING LABORATORIES

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3948

WICHITA 4, KANSAS

Date _____

Addr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number _____ ASTM Designation: D 422								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal, Shale, Etc.
									ASTM C40	ASTM C117	ASTM C142 AASHO T11	ASTM C88 C88 C123	ASTM C123 C123 C117

CERTIFIED

We certify the above work was conducted in accordance with accepted procedures and that this material complies with specification requirements.

REMARKS:

WICHITA TESTING LABORATORIES, INC.

BY _____

WE TEST EVERYTHING UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

Wichita CHEMICAL AND TESTING Laboratories

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RESEARCH ON MANUFACTURING PROBLEMS

1428 N. MOSLEY AVE. PHONE HOBART 4-3948
WICHITA 4, KANSAS

File: 1

PRINCIPALS ARE MEMBERS OF:
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #277

REPORT ON FINE AGGREGATE

LAB NUMBER 901002-A
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

COARSE FINE AGGREGATE CHECK # 157

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:00 AM Date: 1/2/56

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM; 3.12)	-	0.1	4.6	16.5	36.2	60.3	95.6	98.5	99.6	OK	0.4	None	-	None
										ABSORPTION 0.98%				
Specifications: Par B-2.02 B-4.05 (FM; 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
	FM ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS LICENSED

Remarks: Mortar Strength Tests Will Follor (About 1/10/56)

WICHITA CHEMICAL & TESTING LABORATORIES

By

CC:

CERTIFIED

We certify this above test was conducted by us in accordance with accepted procedures and that this material specification requirements.

WE TEST EVERYTHING — UNDER THE SUN

CC: 2 Lock Joint @ Colwich
2 Weller
1 Knoll
1 Hess

File: 1

Wichita CHEMICAL AND TESTING Laboratories

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 3, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #278

REPORT ON COARSE AGGREGATE

LAB NUMBER 901003
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK # 142

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 A.M. Date: 1/2/56

Car or sample number	GRADING, Percent Retained — sieve number (ASTM D75 & C136) 3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	IMPURITIES: Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.72)	-	81.0	97.6	98.4	98.5	98.5	98.6	98.6	98.7	-	1.3	None	None	None
										ABSORPTION 2.99%				
Specifications:														
Par B-2.03, B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0

FM: ± 0.15 98% Retained on No. 6 Sieve.

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Source: Concrete Materials & Const. Co.; Moline, Kans. Producer.

JAMES E. MYERS LICENSED PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By

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Wichita CHEMICAL AND TESTING Laboratories

ANALYTICAL CHEMISTS · BACTERIOLOGISTS · TESTING ENGINEERS

RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE HOBART 4-3949

WICHITA 4, KANSAS

File:

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Aggr. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor: _____ Project: _____

Engineer: _____ Location: _____

Sample taken by: _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent _____ sieve number _____ ASTM D75 & C136								IMPURITIES				
									Organic Matter	% Silt P200	Clay Lumps, Shale	Unsound Particles	Coal Sticks, Etc.
									ASTM C40	ASTM C117	ASTM C142 C238 AASHO T10	ASTM C88 C131	ASTM C123 C123 C127

CERTIFIED
We certify the above test was made in accordance with accepted procedures and that this material complies with specification requirements

Remarks:

WICHITA CHEMICAL & TESTING LABORATORIES

By _____

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2 Lock Joint - Colwich
CC: Weller
1 Knoll
1 Hess

File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 3, 1956

PERIODIC AGGREGATE CHEK

Aggr. Report No. LJC #275

REPORT ON FINE AGGREGATE

LAB NUMBER 812351-a
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines
FINE AGGREGATE CHECK # 156

Engineer: Black & Veatch

Location: Colwich, Kansas

Sample taken by: Lab Insp. From Co. Stockpile Time: 8:30 AM Date: 12/30/55

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136								IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
FINE AGGREGATE														
Dolese Bros. Sand (FM: 3.01)	-	0.3	5.3	17.7	37.2	59.3	83.4	97.5	99.3	OK	0.7	None	-	None
										ABSORPTION 0.96%				
Specifications: Par B-2.02 B-4.05 (FM: 2.50 - 3.10)	-	-	0-5	-	20-40	-	70-88	92-98	-	TypeI	3.0	1.0	-	0.5
	FM: ± 0.15													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

Remarks: Mortar Strength Tests Will Follow (About 1/6/56)

JAMES E. MYERS LICENSED 11562 PROFESSIONAL ENGINEER

WICHITA CHEMICAL & TESTING LABORATORIES

By _____
R. L. Phillips

CHEMICAL AND TESTING

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RESEARCH ON MANUFACTURING PROBLEMS

1429 N. MOSLEY AVE. PHONE MOBART 3-3246

WICHITA 4, KANSAS

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AMERICAN SOCIETY FOR TESTING MATERIALS
AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

REPORT ON

Project

Location

Engineer

Sample taken by

Date

Time

(Refer to this Number)

| Car or sample number | GRADING, Percent ASTM D75 & C136 sieve number | | |

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CC: 2 Lock Joint @ Colwic
2 Wellers
1 Knoll
1 Hess
File: 1

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ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date January 1, 1956

PERIODIC AGGREGATE CHECK

Aggr. Report No. LJC #276

REPORT ON COARSE AGGREGATE

LAB NUMBER 812352
(Refer to this Number)

Contractor: Lock Joint Pipe Co.
P.O. Box 137, Colwich, Kansas

Project: 66" Water Transmission Lines

Engineer: Black & Veatch

Location: Colwich, Kansas

COARSE AGGREGATE CHECK # 141

Sample taken by: Lab. Insp. From Co. Stockpile Time: 9:30 AM Date: 12/30/55

Car or sample number	GRADING, Percent Retained sieve number ASTM D75 & C136									IMPURITIES				
	3/4"	3/8"	#4	#8	#16	#30	#50	#100	% Ret. #200	Organic Matter ASTM C40	% Silt P200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C235 C88 C131	Coal Sticks, Etc. ASTM C123 C129 C227
COARSE AGGREGATE														
Moline 3/4" Stone (FM: 6.48)														
	-	69.0	94.0	95.5	96.0	97.0	98.0	98.7	98.9	-	1.1	None	None	None
										ABSORPTION 2.98%				
Specifications:														
Par B-2.03 B-4.05 (FM: 6.58)														
	0-10	40-80	90-100	-	-	-	-	-	-	-	1.5	0.25	5.0	1.0
	FM: ± 0.15 - 98% Retained on No. 6 Sieve.													

CERTIFIED
We certify the above test was conducted by us in accordance with accepted procedures and that this material meets specification requirements.

JAMES E. MYERS 1462 KANSAS REGISTERED ENGINEER

Remarks: Source: Concrete Materials & Cont. Co.; Moline, Kansas, Producer.

WICHITA CHEMICAL & TESTING LABORATORIES

By

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File:

Wichita Chemical and Testing Laboratories

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WICHITA 4, KANSAS

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AMERICAN SOCIETY OF CIVIL ENGINEERS
ASSOCIATION OF ASPHALT PAVING TECHNOLOGISTS
LICENSED PROFESSIONAL ENGINEERS

Date _____

Ass'r. Report No. _____

REPORT ON _____ LAB NUMBER _____
(Refer to this Number)

Contractor _____ Project _____

Engineer _____ Location _____

Sample taken by _____ Time: _____ Date: _____

Car or sample number	GRADING, Percent ASTM D75 & C136 sieve number								IMPURITIES Organic Matter ASTM C40	% Silt Passing #200 ASTM C117	Clay Lumps, Shale ASTM C142 AASHO T10	Unsound Particles ASTM C88 C131	Coal Sticks, Etc. ASTM C123 C330

CERTIFIED

We certify the above test was completed by us in accordance with accepted procedure and that this material meets specification requirements

WICHITA CHEMICAL & TESTING LABORATORIES

By _____