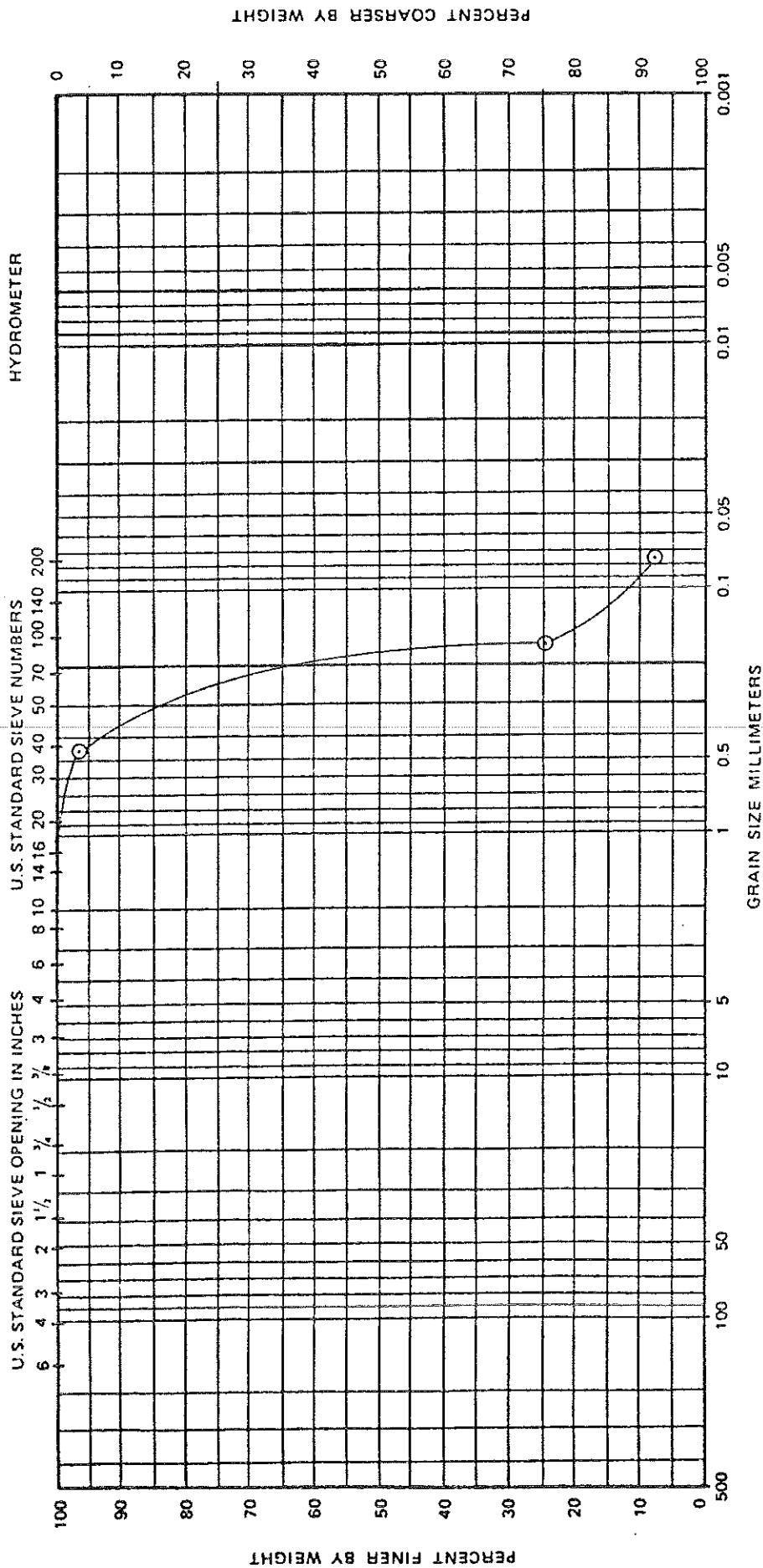


APPENDIX G

Grain Size Analysis and Laboratory Permeability
Testing Results from 1986
Soil Boring Program

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY		
	COARSE	FINE	COARSE	MEDIUM	FINE			

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI
MW-3P		SAND w/SILT, fine	17.5			
S-2	50.0'	grained, light brown				
		(SP-SM)				
DRAWN BY: RRR	APPROVED BY:	NOTES:				

PROJECT Adams County Feasibility
Study
DATE: 8/15/86 PROJECT NO: 86A22
Foth & Van Dyke Industrial Inc.
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 10 to 12, 1986

REPORT NO.: FR-1

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Report SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	4.1	3.3	96.7	
No. 50				
No. 80				
No. 100	89.3	72.0	24.7	
No. 200	20.6	16.6	8.1	
Pan 9.2	10.1	8.1		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 124.1 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring MW-3P

IDENTIFICATION: Sample #2 @ 50.0'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

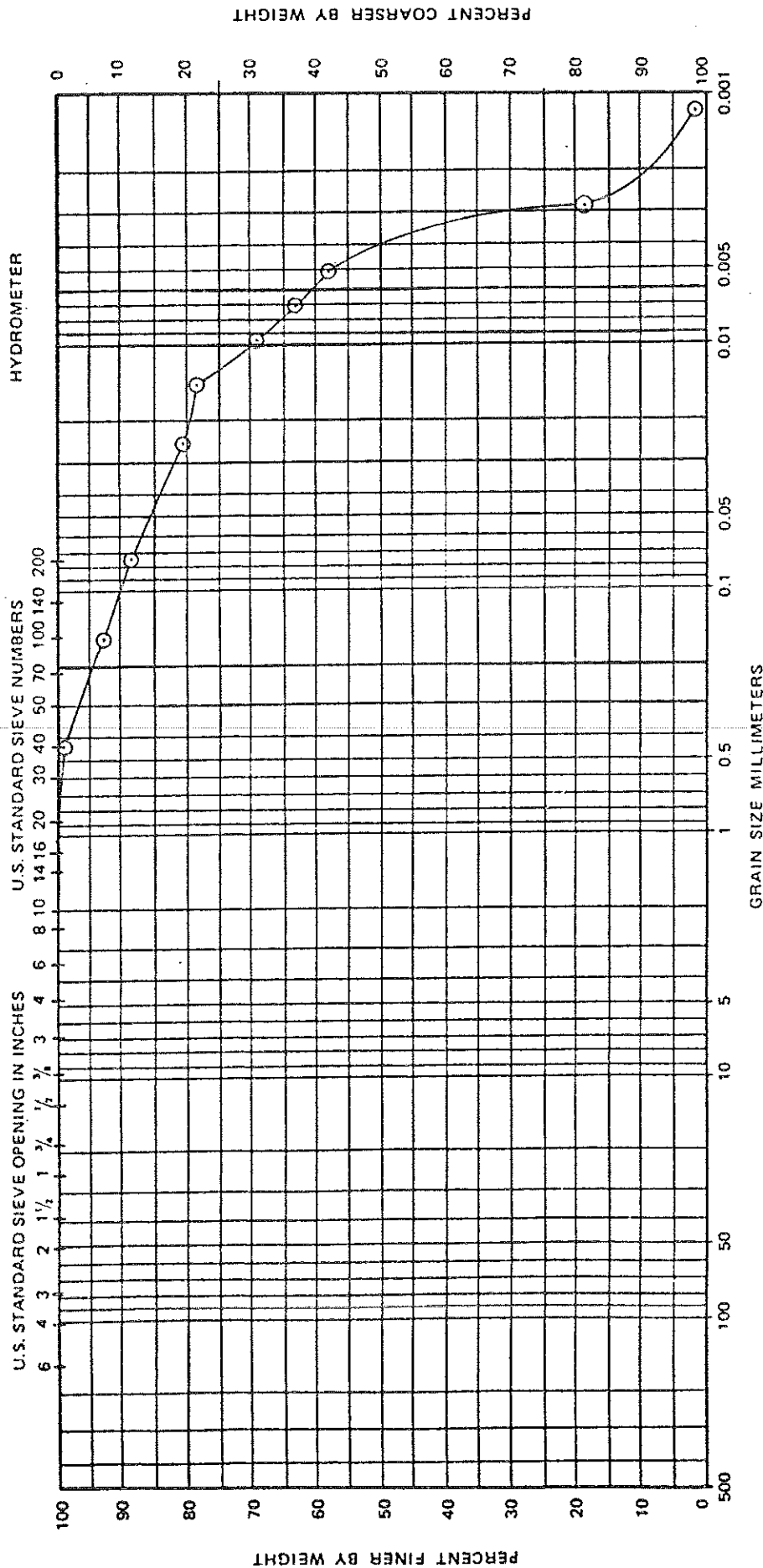
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 8.1 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI
MW-6		LEAN CLAY, reddish	25.4			
S-10	45'	brown (CL)				
DRAWN BY:	APPROVED BY:	NOTES:				
RRR						

PROJECT Adams County Feasibility Study
DATE: 8/15/86 PROJECT NO: 86A22

Foth & Van Dyke Industrial Inc.
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 10 to 12, 1986

REPORT NO.: FR-4

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	13	14	99.6	
No. 50				
No. 80				
No. 100	5.5	6.8	92.8	
No. 200	3.6	4.5	88.3	
Pan .4 70.6	71.0	88.3		
Fineness Modulus				

RECEIVED AT LABORATORY: Junr 23, 1986

QUANTITY REPRESENTED: 80.4 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #MW-6

IDENTIFICATION: Sample #10 @ 45'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

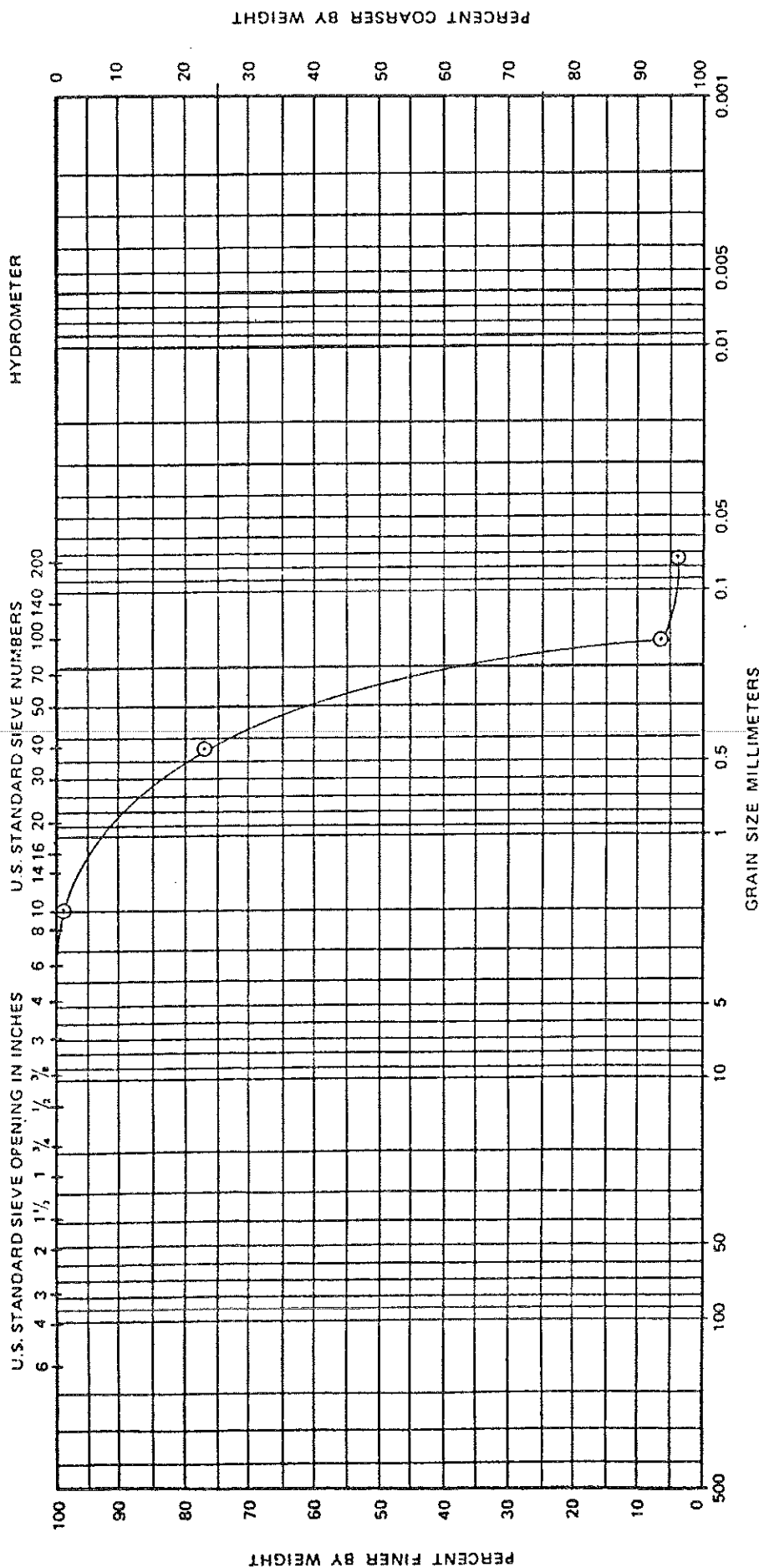
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 88.3 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT Adams County Feasibility Study
MW-6P		SAND, fine to medium	19.7				
S-7	85'	grained, brown (SP)					DATE: 8/15/86 PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Industrial Inc. Waste/Energy Division				

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: _____ 86A22

DATE: _____ July 10 to 12, 1986

REPORT NO.: _____ FR-2

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: _____ Foth & Van Dyke _____ CONTRACTOR: _____

PROJECT: _____ Adams County Feasibility Study _____ SOURCE: _____

REPORT OF TESTS OF: _____ Proposed Landfill _____

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4	0	0	100	
No. 8				
No. 10	1.2	.8	99.2	
No. 16				
No. 20				
No. 30				
No. 40	33.3	22.4	76.8	
No. 50				
No. 80				
No. 100	104.4	70.2	6.6	
No. 200	3.3	2.2	4.4	
Pan	6.4	4.4		
Fineness Modulus				

RECEIVED AT LABORATORY: _____ June 23, 1986

QUANTITY REPRESENTED: _____ 148.7 grams

SUBMITTED BY: _____ Janis Schallhorn of F&VD

SAMPLED FROM: _____ from Boring MW-6P

IDENTIFICATION: _____ Sample #7 @ 85'

DATE SAMPLED: _____ June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

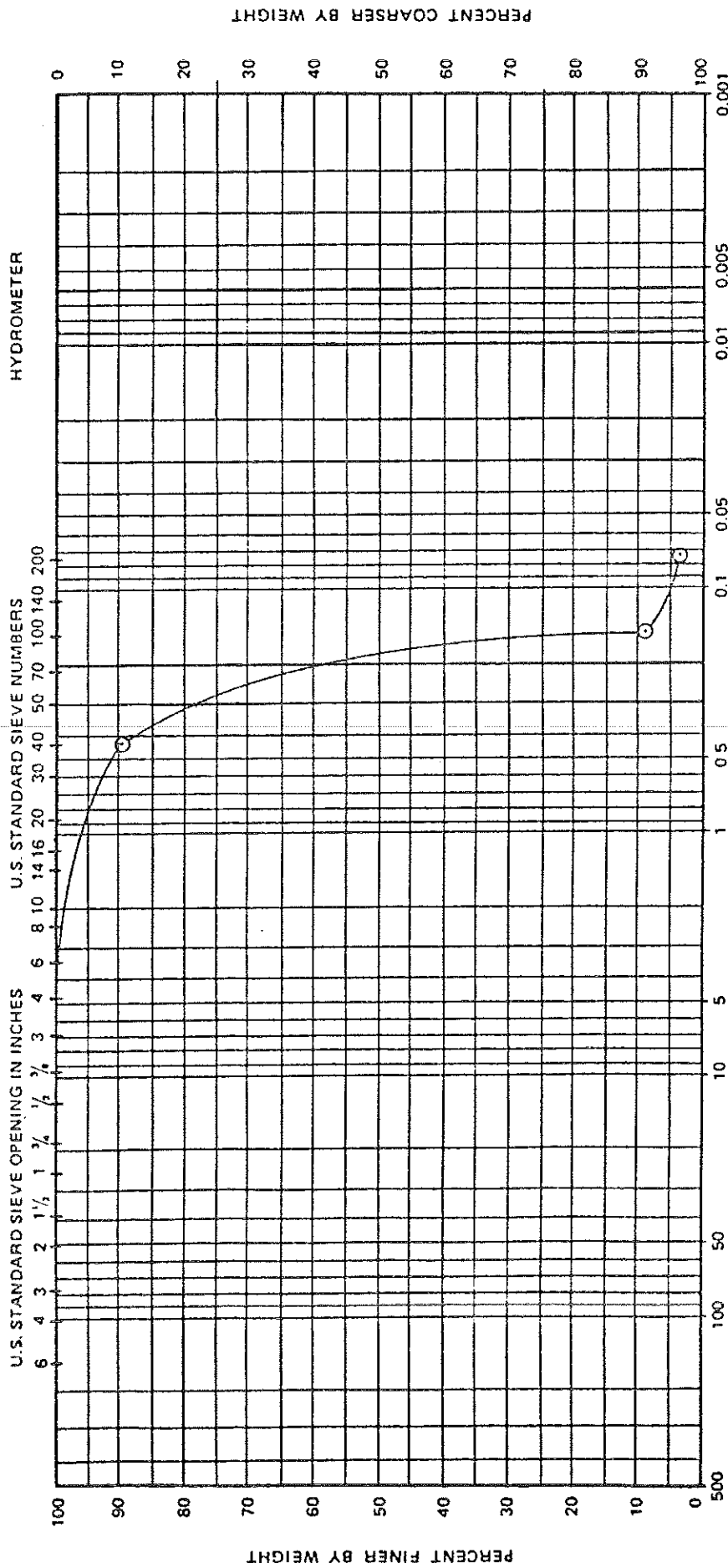
DRY RODDED WGT: _____

WASHED GRADATION: _____ yes

PERCENT PASSING NO. 200 SIEVE _____ 4.4 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



GRAIN SIZE MILLIMETERS

COBBLES	GRAVEL		SAND		SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	ADAMS COUNTY Feasibility Study
MW-7P		SAND, fine grained	17.9				DATE:	8/15/86
S-4	55'	light brown					PROJECT NO:	86A22
		(SP)					Foth & Van Dyke Industrial Inc. Waste/Energy Division	
DRAWN BY:	APPROVED BY:	NOTES:						
RRR								

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 10 to 12, 1986

REPORT NO.: FR-3

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4	0	0	100	
No. 8				
No. 10	1	1	99.9	
No. 16				
No. 20				
No. 30				
No. 40	15.2	10.5	89.4	
No. 50				
No. 80				
No. 100	116.0	80.3	9.1	
No. 200	7.4	5.1	4.0	
Pan 5.5	5.7	3.9		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 144.3 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring MW-7P

IDENTIFICATION: Sample #4 @ 55.0'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

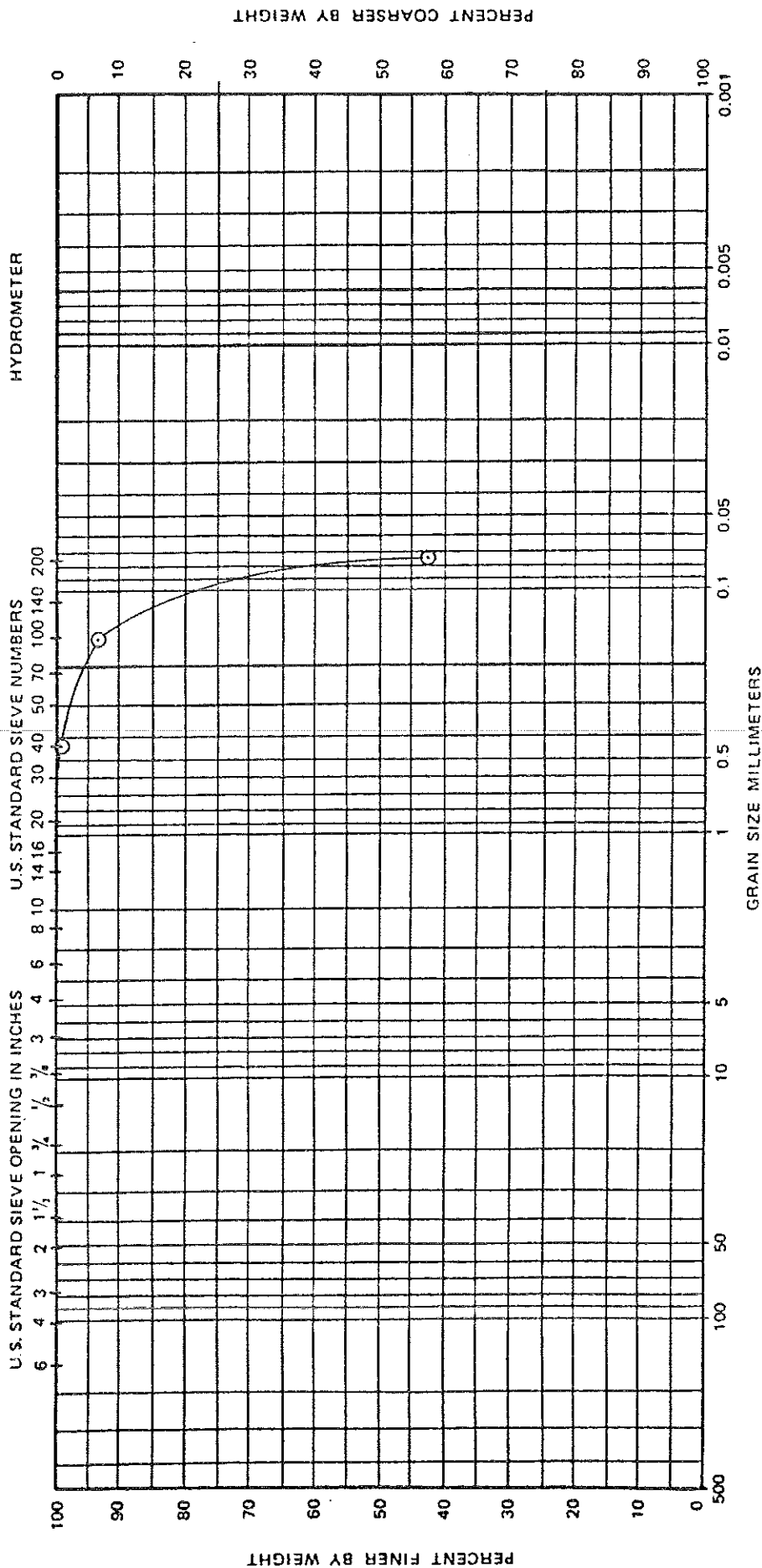
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 4.0 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND		SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility Study
MW-8		SILTY SAND, fine	15.8				DATE: 8/15/86	PROJECT NO: 86A22
S-8	40.0'	grained, light brown (SM)						
DRAWN BY: RRR	APPROVED BY:	NOTES:						

Foth & Van Dyke Industrial Inc.
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 10 & 11, 1986

REPORT NO.: FR-5

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	.1	.1	99.9	
No. 50				
No. 80				
No. 100	7.8	6.3	93.6	
No. 200	63.2	51.1	42.5	
12.2 Pan 40.5	52.7	42.5		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 123.8 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring MW-8

IDENTIFICATION: Sample #8 @ 40.0'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

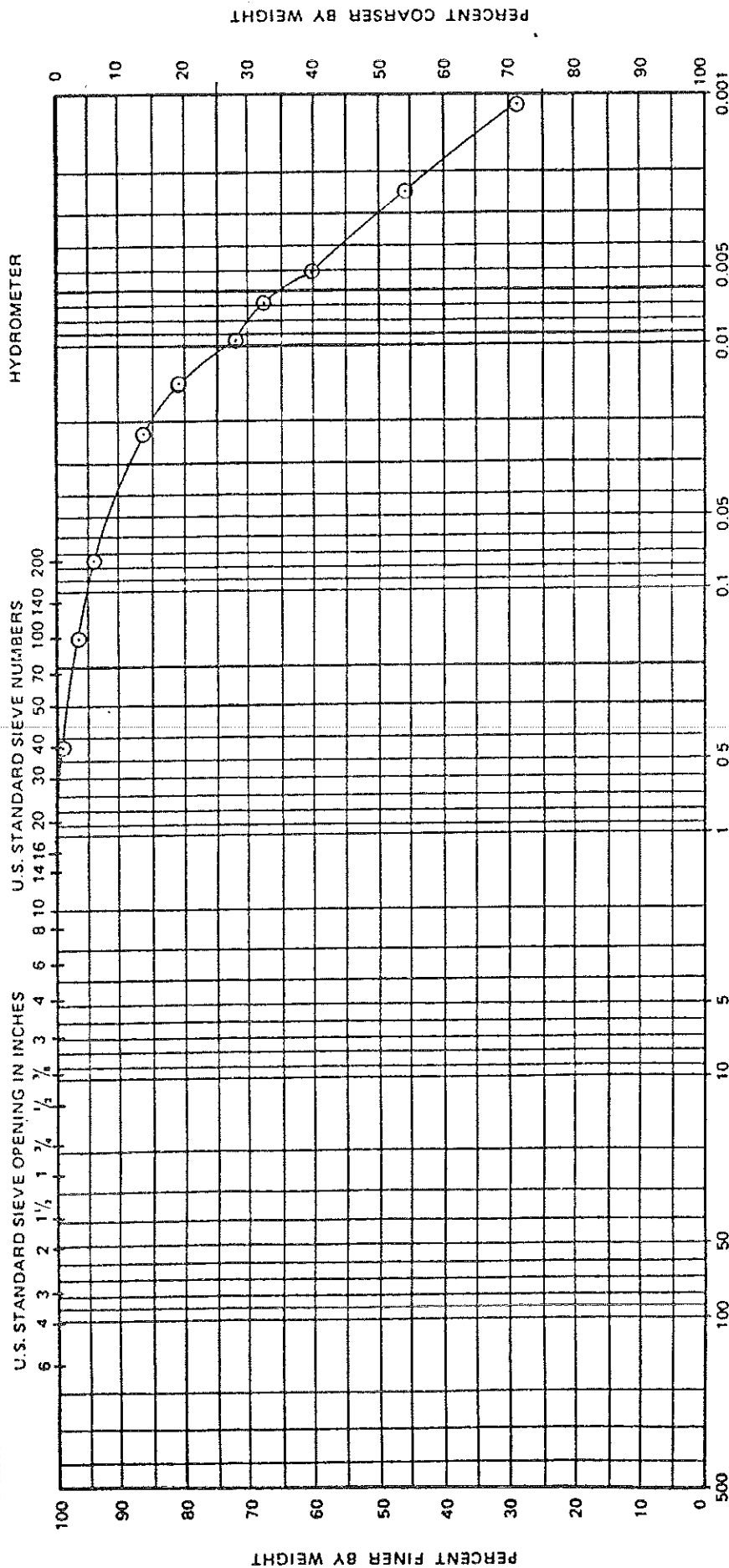
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 42.5 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



GRAIN SIZE MILLIMETERS

COBBLES	GRAVEL		SAND			SILT OR CLAY		
	COARSE	FINE	COARSE	MEDIUM	FINE			

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility
MW-8		LEAN CLAY, reddish	31.1				Study	
S-10	50'	brown (CL)					DATE: 8/15/86	PROJECT NO: 86A22
DRAWN BY: RRR		NOTES:					Foth & Van Dyke Industrial Inc. Waste/Energy Division	

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 17 to 21, 1986

REPORT NO.: FR-9

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Material for Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	---	---	100	
No. 16				
No. 20				
No. 30				
No. 40	.3	.4	99.6	
No. 50				
No. 80				
No. 100	2.2	3.2	96.4	
No. 200	1.5	2.2	94.2	
Pan	64.2	94.1		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 68.2 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: XXXXX from Boring #MW-8

IDENTIFICATION: Sample #10 @ 50'

DATE SAMPLED: _____

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

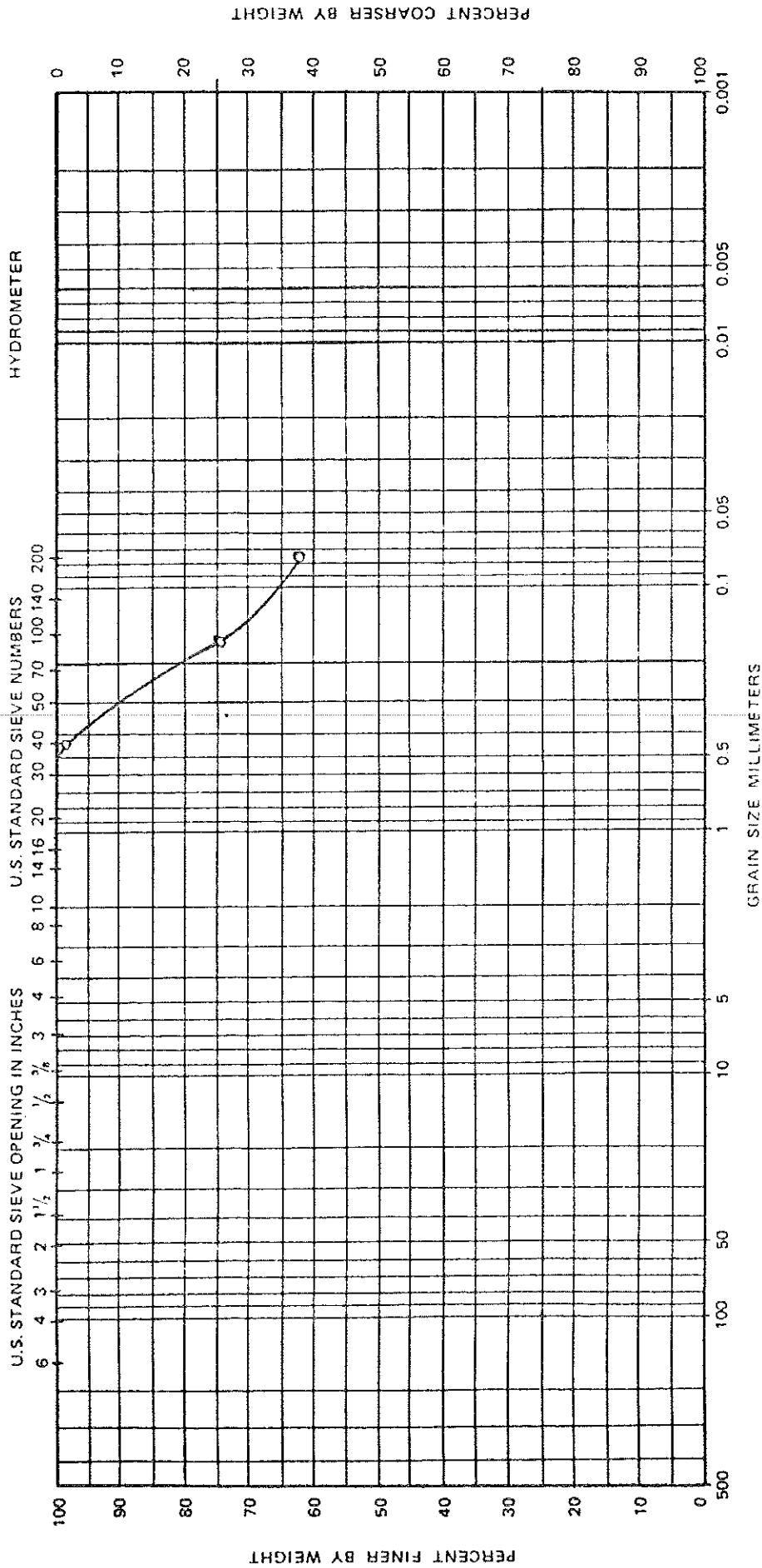
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 94.2 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NATW%	LL	PL	PI	PROJECT	Adams County Feasibility Study
Boring MW-8	50-55'	SANDY LEAN CLAY, brown (CL)					DATE: 9/19/86	PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Waste/Energy Division					

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: September 12-16, 1986

REPORT NO.: FR-18

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	3.6	1.1	98.9	
No. 50				
No. 80				
No. 100	79.0	24.6	74.3	
No. 200	38.4	12.0	62.3	
Pan ^{200.0} _{.3}	200.3	62.3		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 321.3 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED ^{From} ~~FOR~~ Boring MW-8

IDENTIFICATION: Depth 50-55'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 62.3 %

CHECKED BY: _____

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

FALLING/CONSTANT HEAD TEST

Recompacted Perm

No. of Layers	4
No. of Blows/Hammer Size	25/10#
Vol. of Water Added (c.c.)	
Wt. of Cyl. + Soil, Wm (lbs.)	5409
Wt. of Cyl., Wc (lbs.)	3357
Wt. of Soil, W (lbs.)	2052
Average Water Content, w(%)	11.1
Moist Density, FM (lbs./ft. ³)	135.7
Dry Density, FM (dry) (lbs./ft. ³)	122.2
% Compaction	95

JOB NO.:	86A22 FR
BORING NO.:	MW-8
SAMPLE NO.:	
DEPTH:	50-55'
TUBE DIAMETER	A = 4.0"
LENGTH OF SAMPLE	4.50
DIST. FROM TOP OF TUBE TO LOWER WATER LEVEL	33.2 cm
DATE:	September 13-19, 1986
TECH. NAME:	RRR

[illegible]

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road P. O. Box 19012 Green Bay, Wisconsin 54307-9012 414/497-2500

COMPACTION CONTROL REPORT

DATE: 9/19/86 JOB NAME: Adams County Feasibility Study SCOPE I.D. #: 86A22

1. LABORATORY COMPACTION TEST DATA

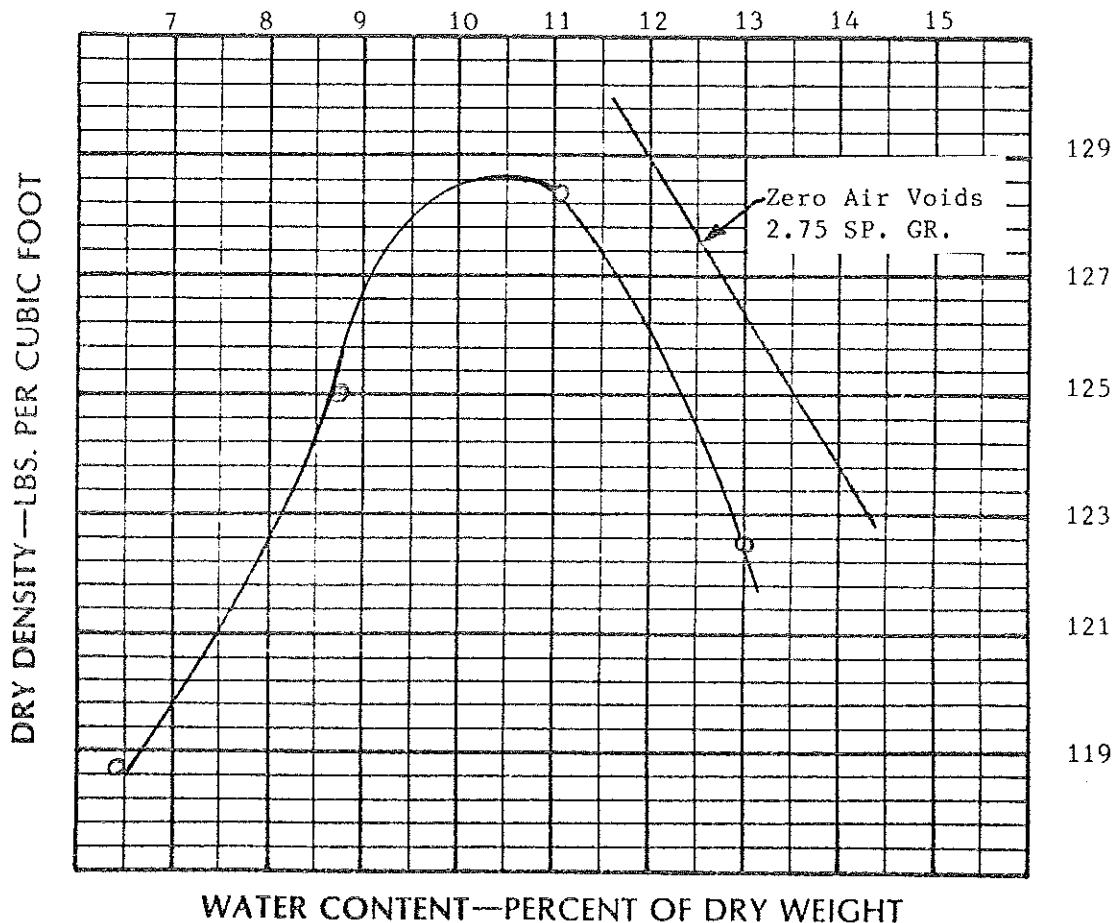
A. DESCRIPTION OF SOIL: SANDY LEAN CLAY, brown (CL)

MATERIAL MARK FR-18 CLASSIFICATION _____ AASHO
SOURCE OF MATERIAL Boring MW-8 Depth 50-55' BPR

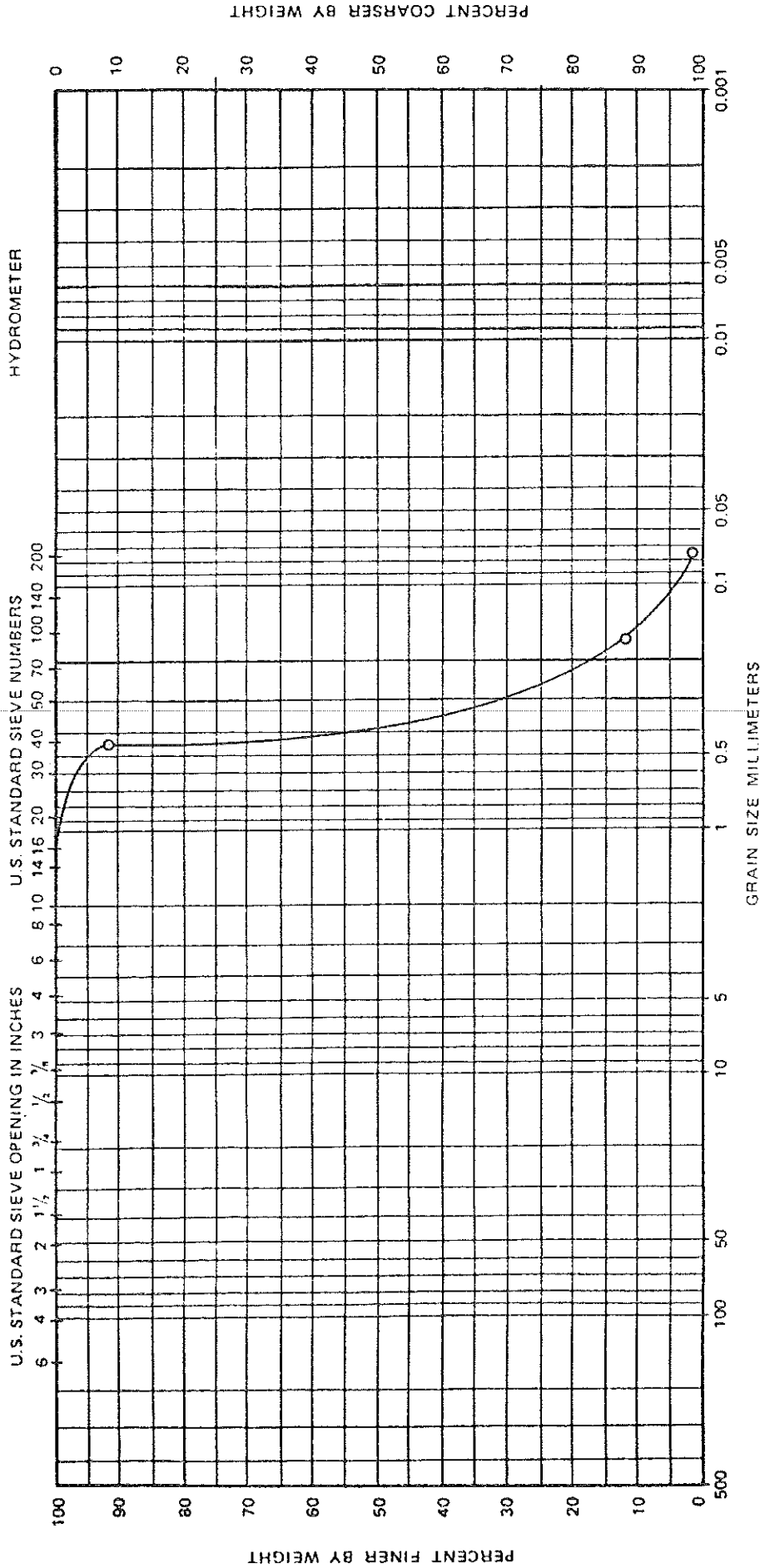
NATURAL WATER CONTENT _____ % NATURAL DRY DENSITY _____ PCF SPECIFIC GRAVITY _____
LIQUID LIMIT _____ % PLASTIC LIMIT _____ % PLASTICITY INDEX _____

B. TEST PROCEDURE USED: ASTM D1557 Method "A"

C. TEST RESULTS: OPTIMUM WATER CONTENT 10.5 %
MAXIMUM DRY DENSITY 128.8 PCF (AT A WET DENSITY OF 142.3 PCF)



GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND		SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility Study
Boring MW-9	10'	SAND, fine grained, brown (SP)					DATE: 9-12-86	PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Waste/Energy Division					

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: September 10 to 11, 1986

REPORT NO.: FR-19

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi- cations
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	36.1	8.5	91.5	
No. 50				
No. 80				
No. 100	337.8	80.0	11.5	
No. 200	41.7	9.9	1.6	
Pan	6.7	1.6		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 422.3 grams

SUBMITTED BY: Janis Schallhorn of Foth & Van Dyke

FROM: Boring MW-9
SAMPLED FROM: _____

IDENTIFICATION: Depth 10'

DATE SAMPLED: June, 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 1.6 %

CHECKED BY: _____

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT: Adams County Study

JOB NO.: 86A22 FR

DATE: September 10, 1986

PERMEABILITY TEST CONSTANT HEAD

SAMPLE NO.: FR-19 Boring MW-9 at 10' depth

SOIL DESCRIPTION: Sand, fine grained, brown (SP)

% COMPACTION - 90

COMPACTED DRY DENSITY = 100.1 pct

MOISTURE = 1.7%

SAMPLE DIAMETER = 4.00"

SAMPLE HEIGHT = 4.5625 (4 9/16")

<u>RUN NO.</u>	<u>CM. HEAD, INCHES</u>	<u>Seconds DURATION, MINUTES</u>	<u>PERMEABILITY, CM/SEC.</u>	<u>REMARKS</u>
1	82.7 cm	15	8.54×10^{-3}	
2	82.7 cm	15	8.49×10^{-3}	
3	82.7 cm	15	8.47×10^{-3}	
4	82.7 cm	15	7.95×10^{-3}	
5	82.7 cm	15	7.88×10^{-3}	
Average of Tests =			8.27×10^{-3}	

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

COMPACTION CONTROL REPORT

DATE: 9-11-86 JOB NAME: Adams County SCOPE I.D. #: 86A22FR

1. LABORATORY COMPACTION TEST DATA

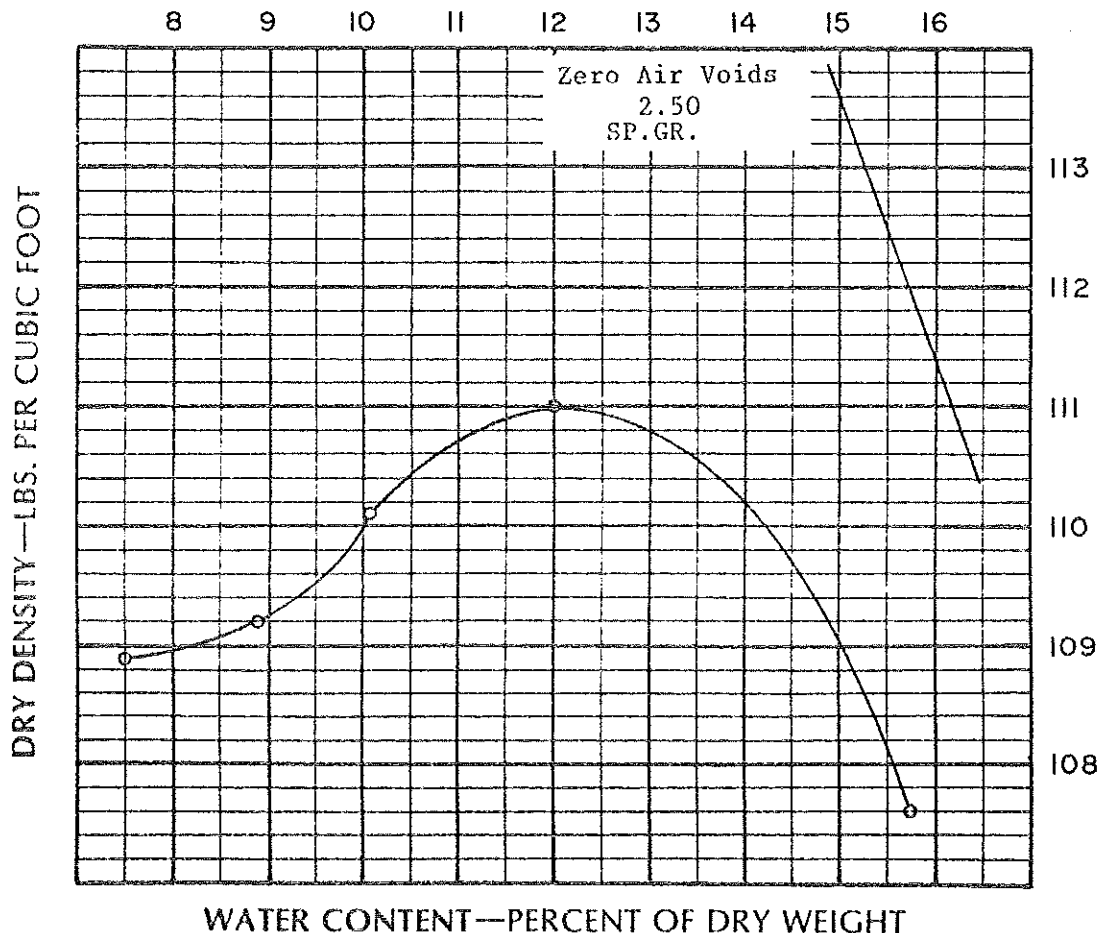
A. DESCRIPTION OF SOIL: SAND, fine grained, brown (SP)

MATERIAL MARK Boring MW-9 CLASSIFICATION _____ AASHO
SOURCE OF MATERIAL _____ BPR

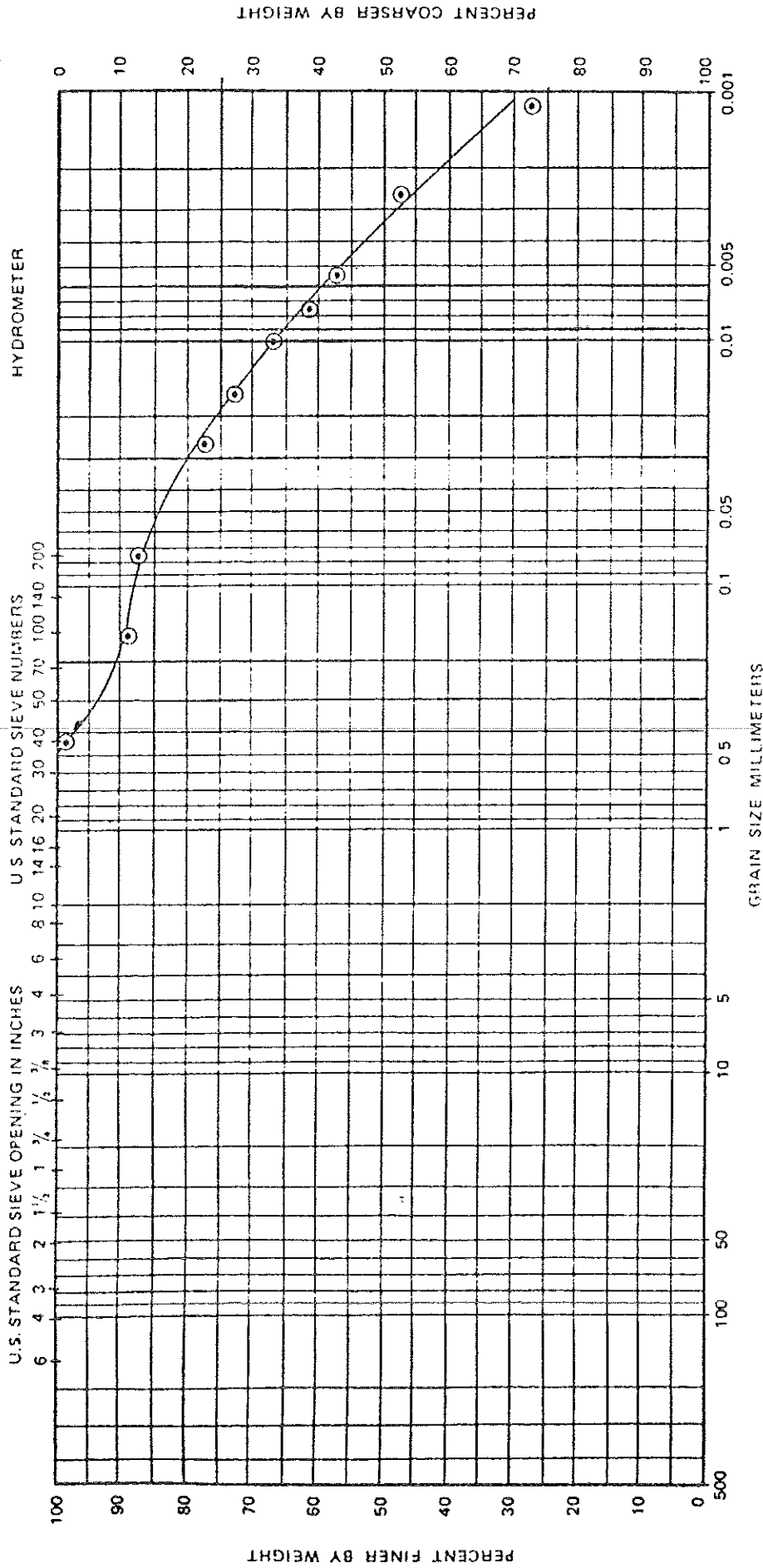
NATURAL WATER CONTENT _____ % NATURAL DRY DENSITY _____ PCF SPECIFIC GRAVITY _____
LIQUID LIMIT _____ % PLASTIC LIMIT _____ % PLASTICITY INDEX _____

B. TEST PROCEDURE USED: ASTM D 1557-78 Method "A"

C. TEST RESULTS: OPTIMUM WATER CONTENT 13.0 %
MAXIMUM DRY DENSITY 111.0 PCF (AT A WET DENSITY OF 125.4 PCF)



GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility Study
B-NW9		LEAN CLAY, reddish	31.4					
S-7	35'	brown (CL)					DATE:	8/25/86 PROJECT NO: 86A22
DRAWN BY:	APPROVED BY:	NOTES:						
RRR								

Roth & Van Dyke
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 1986

REPORT NO.: FR15

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	.7	1.2	98.8	
No. 50				
No. 80				
No. 100	5.4	9.6	89.2	
No. 200	1.0	1.8	87.4	
Pan	49.2	87.4		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 56.3 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring MW 9

IDENTIFICATION: Sample #7 (upper) @ 35'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

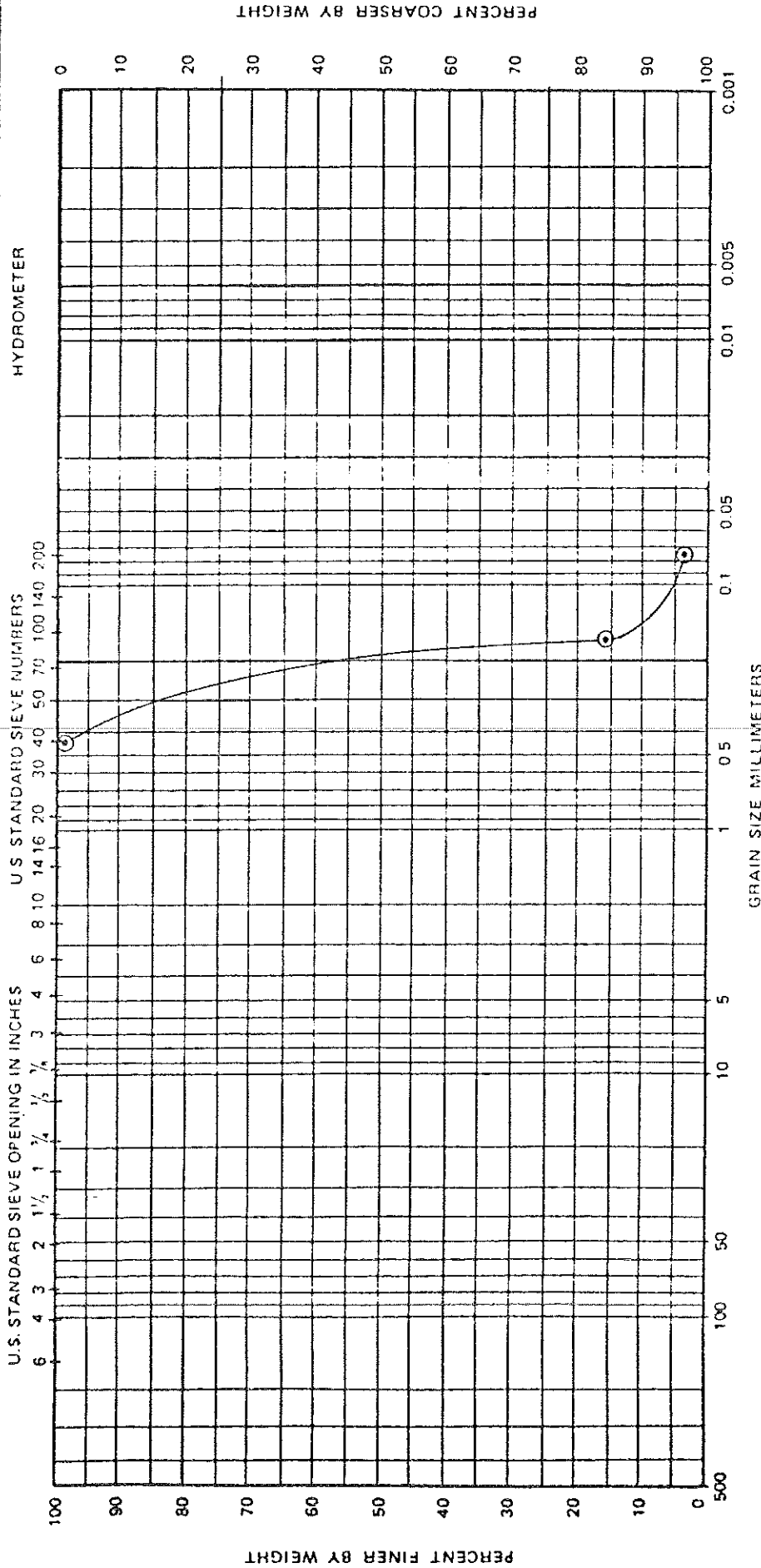
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 87.4%

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND		SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility
Boring Mt-9		SAND, fine grained	3.3				Study	
7-A	35'	light brown (SP)					DATE: 8/25/86	PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Water/Energy Division					

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 19 to 22, 1986

REPORT NO.: FR15-A

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-inch				
2-inch				
1 1/2-inch				
1-inch				
3/4-inch				
1/2-inch				
3/8-inch				
No. 4				
No. 8				
No. 10				
No. 16				
No. 20				
No. 30				
No. 40	.7	.9	99.1	
No. 50				
No. 80				
No. 100	62.8	82.8	16.3	
No. 200	9.5	12.5	3.8	
Pan	2.8	3.7		
Fineness Modulus				

RECEIVED AT LABORATORY: _____

QUANTITY REPRESENTED: 75.8 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring MW-9

IDENTIFICATION: Sample 7A (lower) @ 35'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

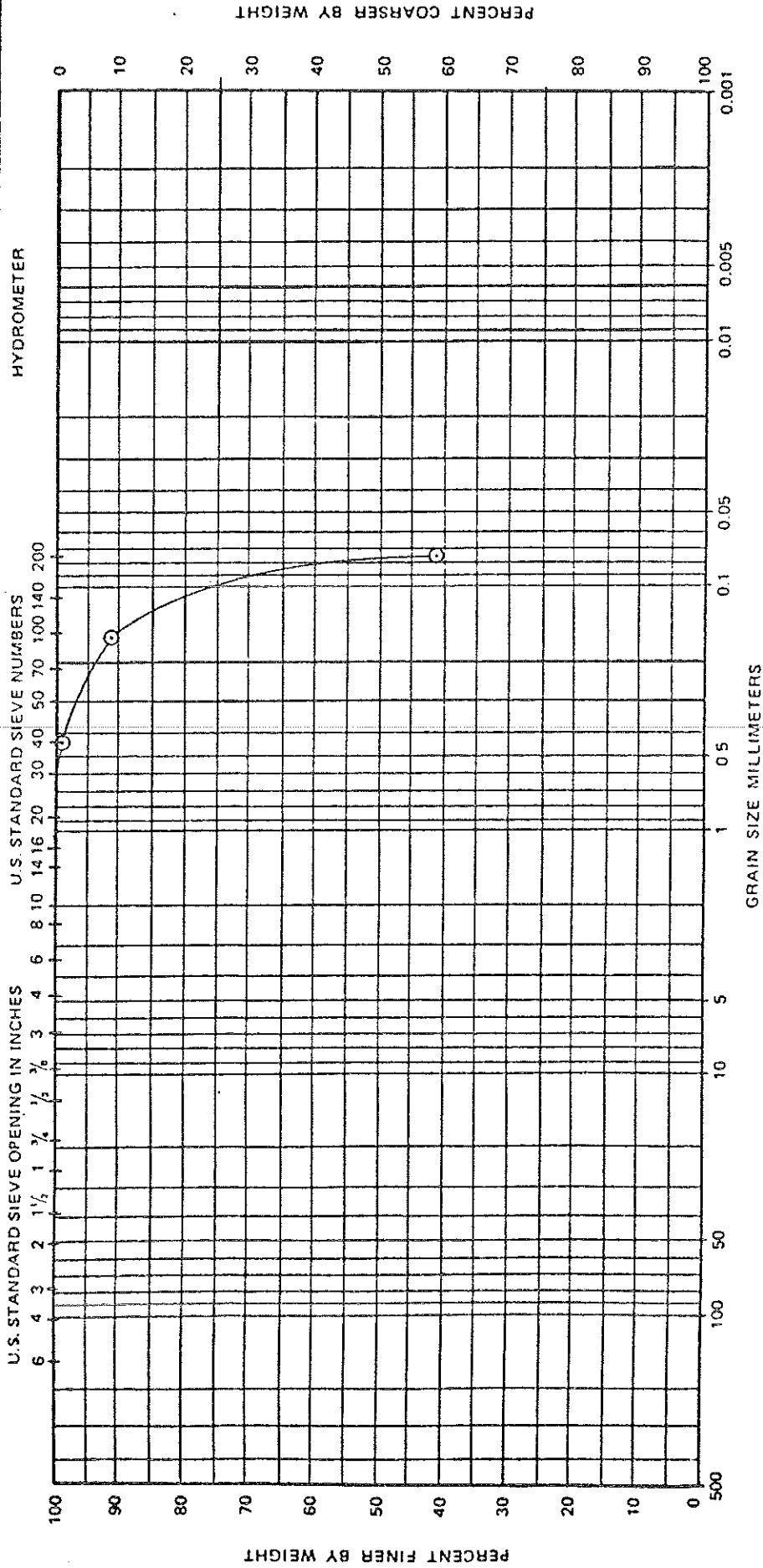
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 3.7 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT
Boring 10		SILTY SAND, fine grained	18.5				Adams County Feasibility
S-4	15'	light brown					Study
		(SM)					DATE: 8/15/86 PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:					

Foth & Van Dyke Industrial Inc.
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 11 to 15, 1986

REPORT NO.: FR-6

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10				
No. 16				
No. 20				
No. 30				
No. 40	.1	.1	99.9	
No. 50				
No. 80				
No. 100	12.1	8.4	91.5	
No. 200	72.2	50.3	41.2	
11.2 Pan 47.8	59.1	41.2		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 143.6 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #10

IDENTIFICATION: Sample #4 @ 15'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

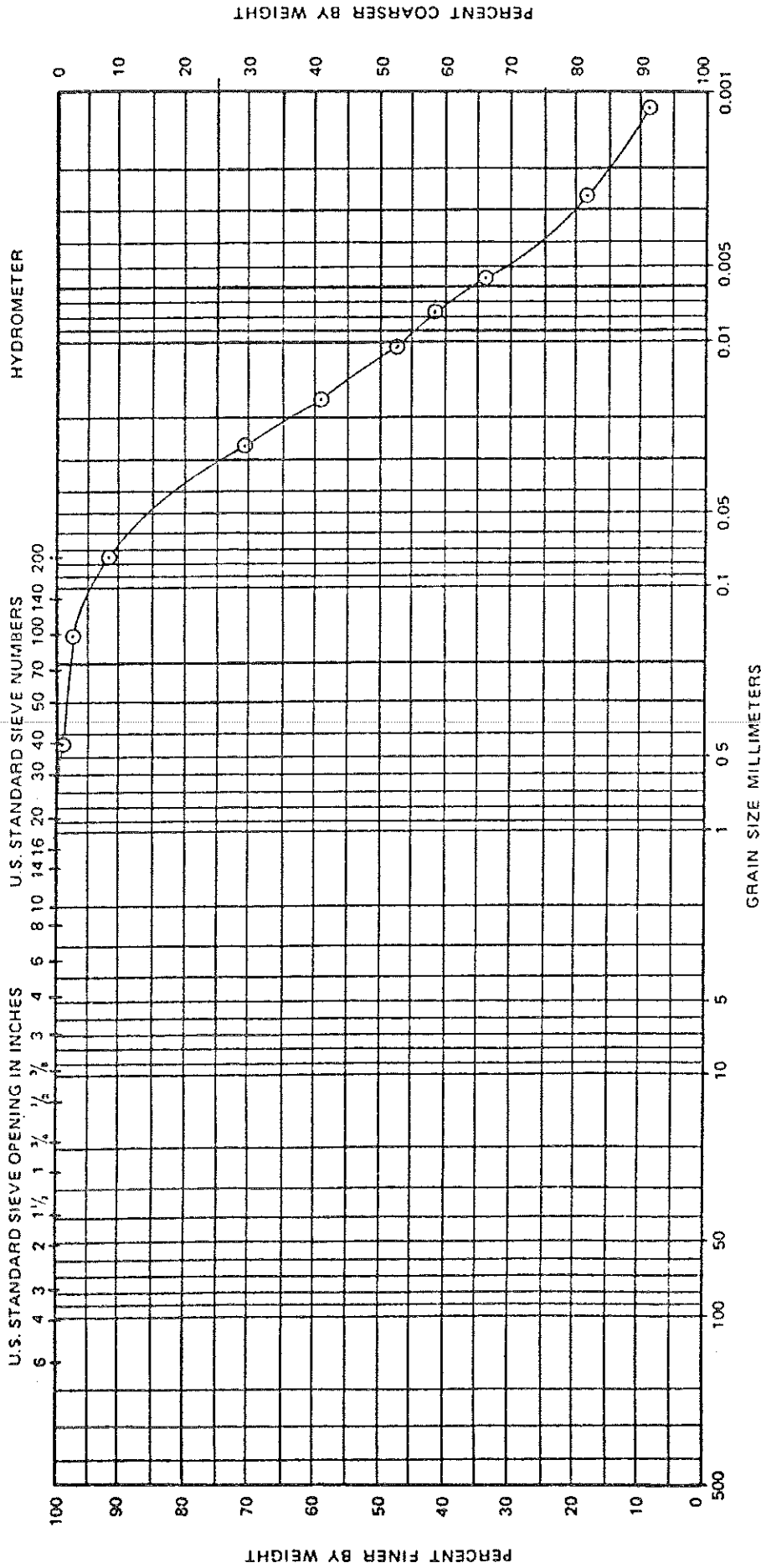
WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 41.2 %

Moisture content on sample: 18.5%

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY		
	COARSE	FINE	COARSE	MEDIUM	FINE			

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT
Boring 10		Clayey SILT, pale brown	24.9				Adams County Feasibility
S-5	20'	(CL-ML)					Study
DRAWN BY:	APPROVED BY:	NOTES:					DATE: 8/15/86 PROJECT NO: 86A22
RRR							Foth & Van Dyke Industrial Inc. Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 17 to 21, 1986

REPORT NO.: FR-10

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Material for Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	---	---	100	
No. 16				
No. 20				
No. 30				
No. 40	.4	.4	99.6	
No. 50				
No. 80				
No. 100	2.7	2.6	97.0	
No. 200	6.2	6.0	91.0	
Pan	94.4	91.0		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 103.7

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #10

IDENTIFICATION: Sample #5 @ 20.0'

DATE SAMPLED: _____

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

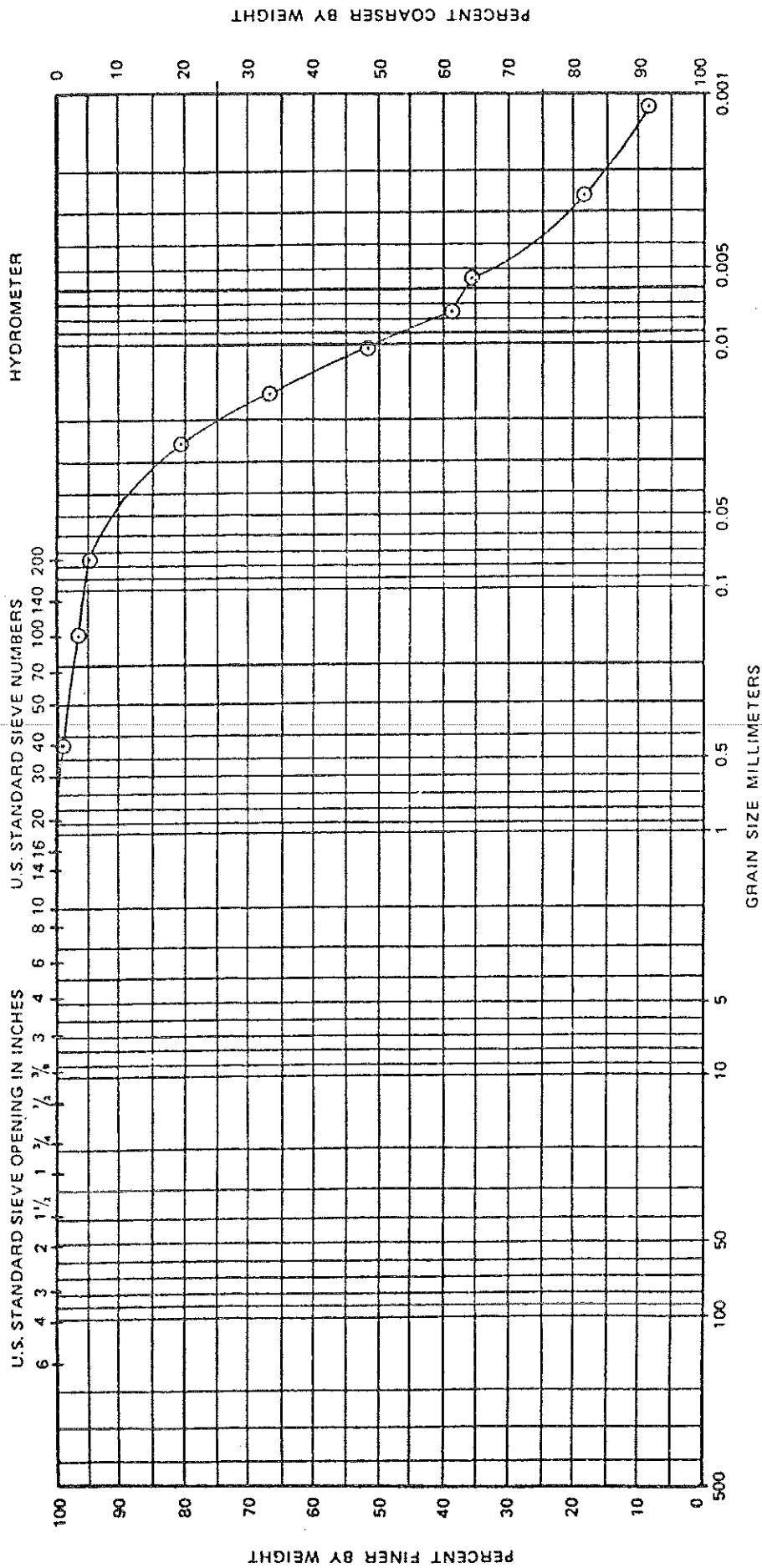
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 91.0 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT Adams County Feasibility
Boring 10		Clayey SILT; gray brown,	28.4				Study
S-6	25'	(CL-MI)					DATE: 8/15/86 PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Industrial Inc. Waste/Energy Division				

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 23 to 25, 1986

REPORT NO.: FR-11

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams county Clay Investigation SOURCE: _____

REPORT OF TESTS OF: Proposed Materials for Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	---	---	100	
No. 16				
No. 20				
No. 30				
No. 40	.7	.7	99.3	
No. 50				
No. 80				
No. 100	3.5	3.3	96.0	
No. 200	1.6	1.5	94.5	
Pan	100.2	94.5		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 106.0 grams

SUBMITTED BY: Janis Schallhorn or F&VD

SAMPLED FROM: from Boring #10

IDENTIFICATION: Sample #6 @ 25'

DATE SAMPLED: _____

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

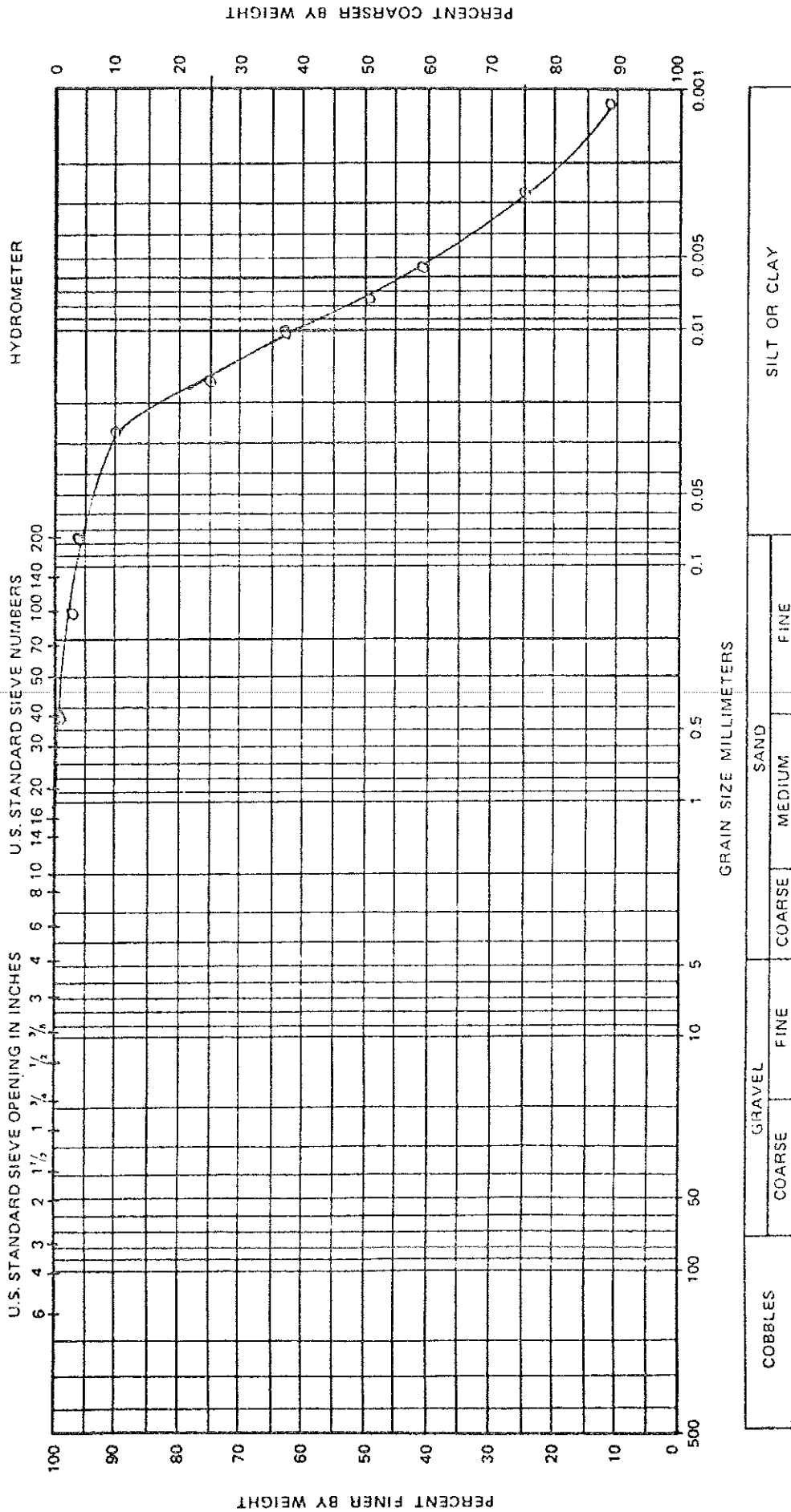
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 94.5 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	SAND				SILT OR CLAY	
			NAT W%	LL	PL	PI		
Boring 10		LEAN CLAY, brown to reddish brown						
FR-17	30-33'	(CL)						
DRAWN BY: RRR	APPROVED BY:	NOTES:	Foth & Van Dyke Waste/Energy Division					

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

FALLING/CONSTANT HEAD TEST

No. of Layers	
No. of Blows/Hammer Size	
Vol. of Water Added (c.c.)	
Wt. of Cyl. + Soil, Wm (lbs.)	
Wt. of Cyl., Wc (lbs.)	
Wt. of Soil, W (lbs.)	
Average Water Content, w(%)	
Moist Density, FM (lbs./ft. ³)	
Dry Density, FM (dry) (lbs./ft. ³)	
% Compaction	

JOB NO.:	86A22
BORING NO.:	10
SAMPLE NO.:	FR-17
DEPTH:	30-33'
TUBE DIAMETER	A = 2.80"
LENGTH OF SAMPLE	6.8125"
DIST. FROM TOP OF TUBE TO LOWER WATER LEVEL	26.3 cm
DATE:	July 18, 1986
TECH. NAME:	R. Rouse

TIME	AM/PM	DATE	TIME INTERVAL (MIN.)	H @ START OF TEST	H @ FINISH	TARE	TOTAL WT. TARE + WATER, GR.	WEIGHT OF WATER, GR.	K CM/SEC.
08:05	AM	7/18/86	(483)	SATURATION					
16:08	AM	7/18/86	28,980	101.0	96.1	201.7	299.8	98.1	2.50×10^{-6}
16:08	AM	7/18/86	(3985)	--					
10:37	AM	7/21/86	239,100	96.1	83.3	201.7	436.7+	235.0+	9.00×10^{-7}
10:37	AM	7/21/86	(1255)	@ 2 psi					
07:32	AM	7/22/86	75,300	83.3	74.6	201.7	379.8	178.1	8.00×10^{-7}
07:32	AM	7/22/86	(1419)	--					
07:11	AM	7/23/86	85,140	74.6	72.2	201.7	246.4	44.7	5.00×10^{-7}
07:11	AM	7/23/86	(5267)	--					
22:58	AM	7/26/86	316,020	72.2	66.3	201.7	312.6	110.9	4.00×10^{-7}
22:58	AM	7/26/86	(3525)						
09:43	AM	7/29/86	211,500	66.3	62.9	201.7	260.7	59.0	4.00×10^{-7}
09:43	AM	7/29/86	(8930)	@ 2 psi					
14:33	AM	8/04/86	535,800	62.9	55.7	201.7	330.1	128.4	9.61×10^{-8}
14:33	AM	8/04/86	(8470)	@ 1 psi					
11:43	AM	8/10/86	508,200	55.7	49.4	201.7	310.0	108.3	1.00×10^{-7}
11:43	AM	8/10/86	(2635)	@ 1 psi					
07:38	AM	8/12/86	158,100	49.4	47.7	201.7	231.0	29.3	1.00×10^{-7}
07:38	AM	8/12/86	(8972)	@ 1 psi					
13:10	AM	8/18/86	538,320	47.7	41.2	201.7	318.7	117.0	2.00×10^{-7}
13:10	AM	8/18/86	(4090)	@ 1 psi					
09:20	AM	8/21/86	245,400	41.2	38.2	201.7	251.9	50.2	2.00×10^{-7}
09:20	AM	8/21/86	(5760)	@ 1 psi					
09:20	AM	8/25/86	345,600	38.2	34.3	201.7	--	--	2.00×10^{-7}
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM						Perm Rate		2×10^{-7}

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: September 26, 1986

REPORT NO.: FR-17

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Material for Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10				
No. 16				
No. 20	0	0	100	
No. 30				
No. 40	.6	.4	99.6	
No. 50				
No. 80				
No. 100	3.0	2.0	97.6	
No. 200	1.3	.9	96.7	
Pan ^{143.4} 143.5	143.5	96.7		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 148.4 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED ^{From} ~~XXXX~~: Boring #10

IDENTIFICATION: Depth 32'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

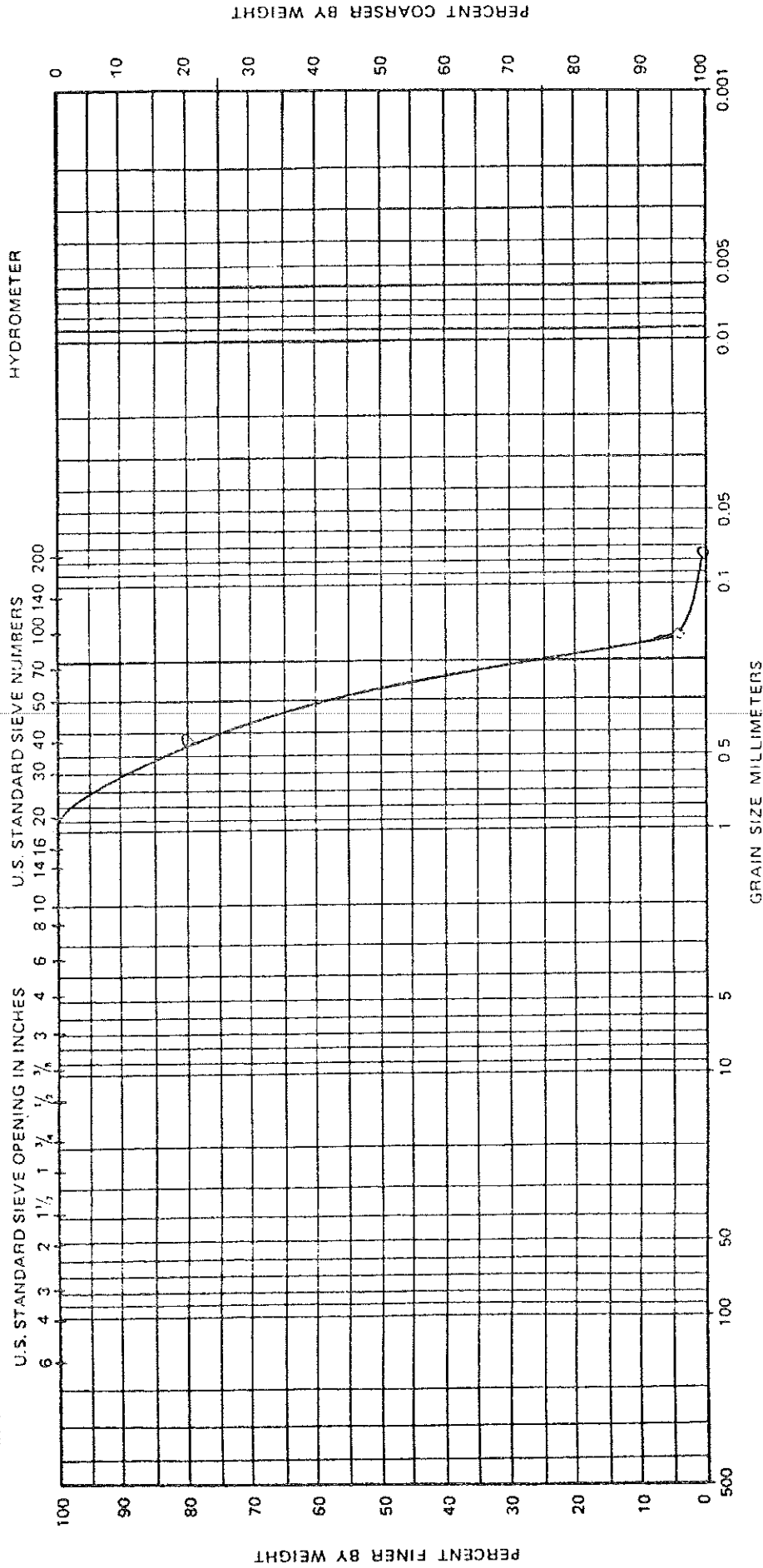
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 96.7 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES		GRAVEL		SAND		SILT OR CLAY	
		COARSE	FINE	COARSE	MEDIUM	FINE	
SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION		NATW%	LL	PL	PI
Boring 11	10-15'	SAND, fine to medium					
		grained, light brown (SP)					
DRAWN BY:	APPROVED BY:	NOTES:					
RRR							
PROJECT				ADAMS COUNTY FEASIBILITY STUDY			
DATE: 9/19/86				PROJECT NO: 86A22			
FOTH & VAN DYKE Waste/Energy Division							

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: September 11, 1986

REPORT NO.: FR-25

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	66.5	19.8	80.2	
No. 50				
No. 80				
No. 100	255.2	75.8	4.4	
No. 200	13.1	3.9	0.5	
Pan 1.6 0.3	1.9	0.6		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 336.7 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED ^{From} ~~FORM~~: Boring #11

IDENTIFICATION: Depth 10-15'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 0.5 %

CHECKED BY: _____

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT: Adams County Feasibility

JOB NO.: 86A22

DATE: September 11, 1986

PERMEABILITY TEST CONSTANT HEAD

SAMPLE NO.: FR-25 - Boring #11 at 10' to 15' depth

SOIL DESCRIPTION: SAND, fine to medium grained, light brown (SP)

% COMPACTION --

COMPACTED DRY DENSITY = 103.3 pcf

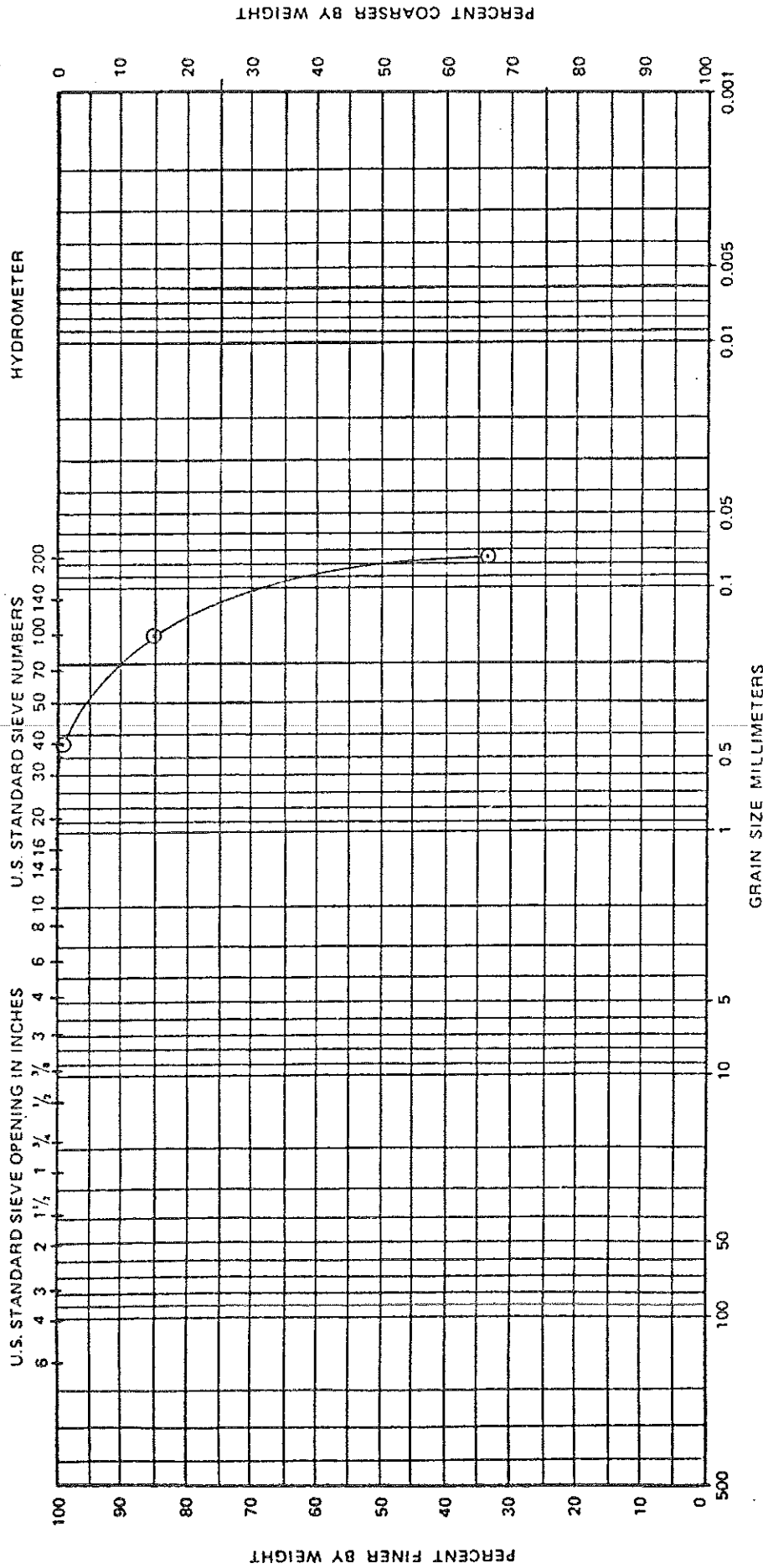
MOISTURE = 7.4%

SAMPLE DIAMETER = 4.00"

SAMPLE HEIGHT = 4.5625" (4-9/16")

<u>RUN NO.</u>	<u>HEAD, INCHES (CM)</u>	<u>DURATION, MINUTES (Seconds)</u>	<u>PERMEABILITY, CM/SEC.</u>	<u>REMARKS</u>
1	83.0	15	1.06×10^{-2}	
2	83.0	15	1.03×10^{-2}	
3	83.0	15	1.03×10^{-2}	
4	83.0	15	1.05×10^{-2}	
5	83.0	15	1.04×10^{-2}	
Average for Test			1.04×10^{-2}	
Perm Rate			1×10^{-2}	

GRAIN SIZE ANALYSIS



COBBLES		GRAVEL		SAND		SILT OR CLAY	
		COARSE	FINE	COARSE	MEDIUM	FINE	
SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION		NAT W%	LL	PL	PI
Boring 11		SILTY SAND, fine		21.7			
S-8	35'	grained, light brown					
		(SM)					
DRAWN BY:	APPROVED BY:	NOTES:					
RRR							

U.S. STANDARD SIEVE OPENING IN INCHES

U.S. STANDARD SIEVE NUMBERS

HYDROMETER

PERCENT COARSER BY WEIGHT

PROJECT Adams County Feasibility Study

DATE: 8/15/86 PROJECT NO: 86A22

Foth & Van Dyke Industrial Inc.

Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 11 to 15, 1986

REPORT NO.: FR-7

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Speci- fications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10				
No. 16				
No. 20				
No. 30				
No. 40	.1	.1	99.9	
No. 50				
No. 80				
No. 100	18.5	14.8	85.1	
No. 200	63.7	51.1	34.0	
Pan 11.1 31.2	42.3	33.9		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 124.7 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #11

IDENTIFICATION: Sample #8 @ 35.0'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 33.9 %

CHECKED BY: _____

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 19 to 22

REPORT NO.: FR12

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4				
No. 8				
No. 10				
No. 16				
No. 20				
No. 30				
No. 40	0	0	100	
No. 50				
No. 80				
No. 100	.8	.7	99.3	
No. 200	.4	.4	98.9	
Pan	112.1	98.9		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 113.3 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring #11

IDENTIFICATION: Sample #9 @ 40'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

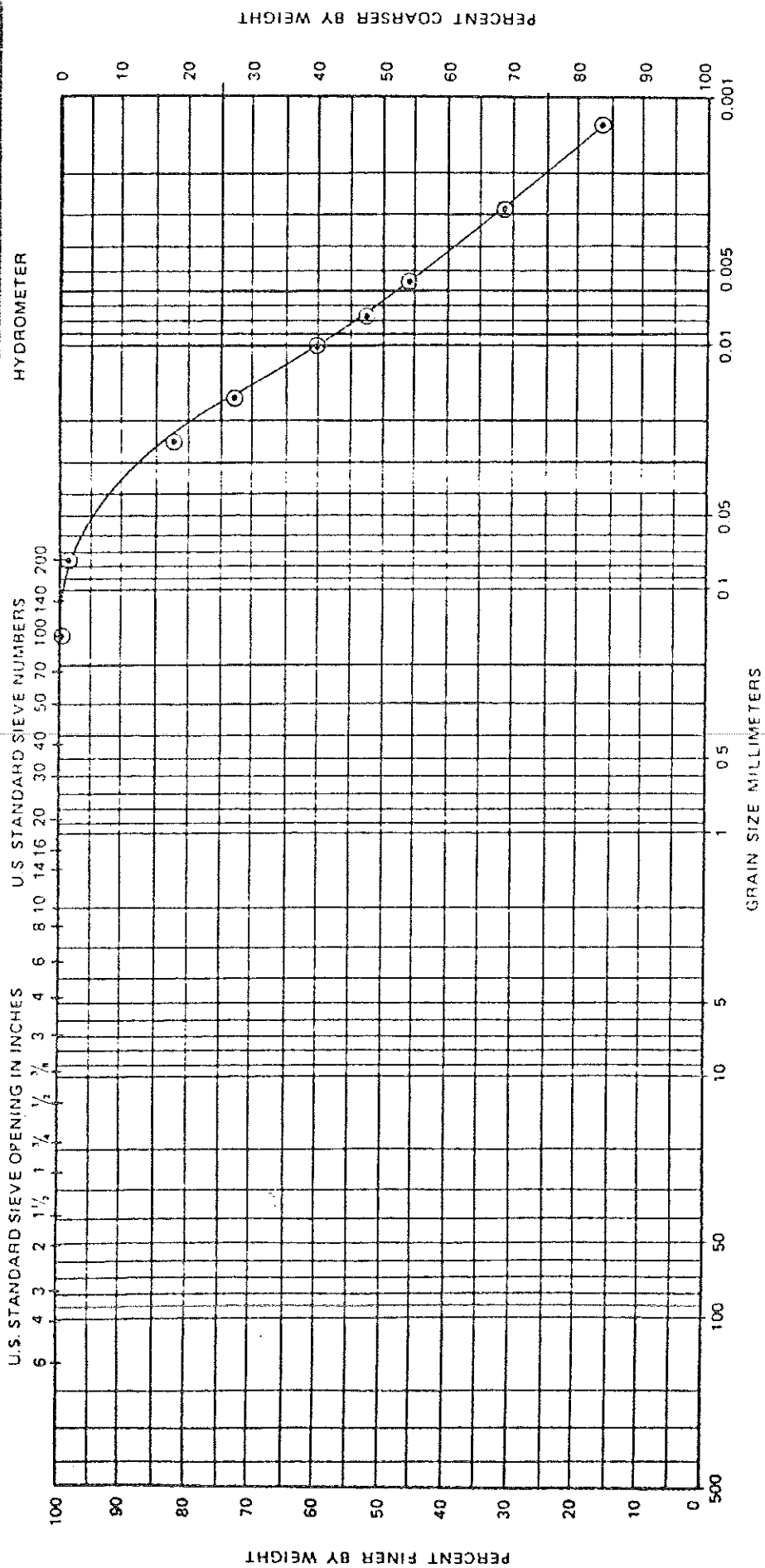
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 98.9 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND		SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NATW%	LL	PL	PI
B-11		LEAN CLAY, grayish	29.3			
S-9	40'	brown				
		(CL)				
DRAWN BY: RRR	APPROVED BY:	NOTES:				

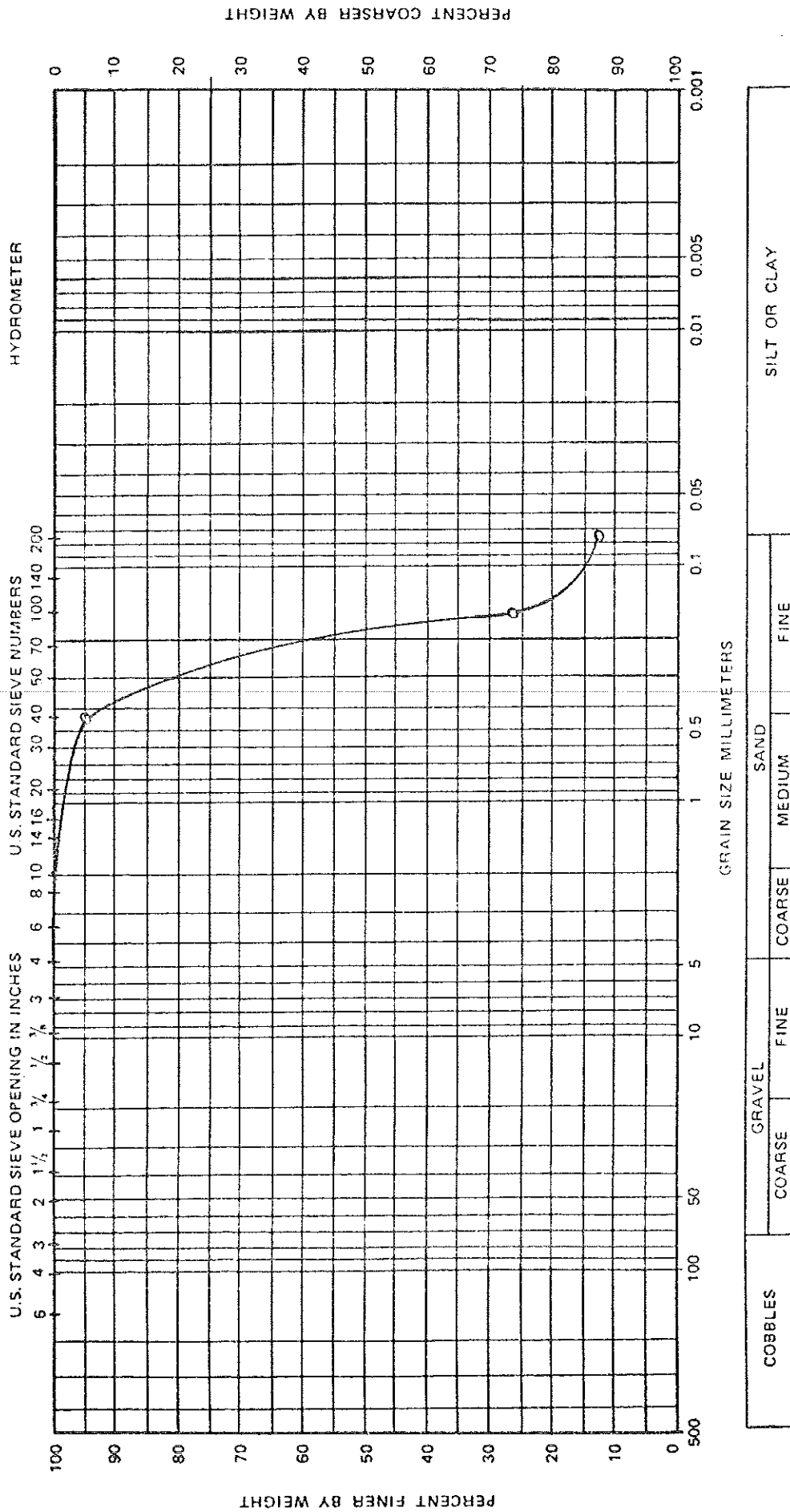
PROJECT Adams County Feasibility Study

DATE: 8/25/86 PROJECT NO: 86A22

Foth & Van Dyke

Waste/Energy Division

GRAIN SIZE ANALYSIS



COBBLES		GRAVEL		SAND		SILT OR CLAY	
		COARSE	FINE	COARSE	MEDIUM	FINE	
SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION		NAT W%	LL	PL	PI
Boring 12	5-10'	SILTY SAND, fine grained, light brown					
APPROVED BY:		NOTES:					
RRR							
PROJECT Adams County Feasibility Study				DATE: 9/19/86 PROJECT NO: 86A22			
Foth & Van Dyke				Waste/Energy Division			

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT: Adams County Feasibility

JOB NO.: 86A22

DATE: September 11, 1986

PERMEABILITY TEST CONSTANT HEAD

SAMPLE NO.: FR-21 - Boring #12 at 5' to 10' depth

SOIL DESCRIPTION: SILTY SAND, fine grained, light brown (SM)

% COMPACTION 92

COMPACTED DRY DENSITY = 106.7 pcf

MOISTURE = 10.4%

SAMPLE DIAMETER = 4.0"

SAMPLE HEIGHT = 4.5625"

<u>RUN NO.</u>	<u>HEAD, (CM)</u> <u>INCHES</u>	<u>DURATION, (Seconds)</u> <u>MINUTES</u>	<u>PERMEABILITY, CM/SEC.</u>	<u>REMARKS</u>
1	84.5	30	6.60×10^{-4}	
2	84.5	30	6.43×10^{-4}	
3	84.5	30	6.77×10^{-4}	
4	84.5	30	6.77×10^{-4}	
5	84.5	30	6.43×10^{-4}	
Average of Tests			6.60×10^{-4}	
Perm Rate			7×10^{-4}	

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: September 11-12, 1986

REPORT NO.: FR-21

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4	0	0	100	
No. 8				
No. 10	0.5	0.1	99.9	
No. 16				
No. 20				
No. 30				
No. 40	25.0	5.1	94.8	
No. 50				
No. 80				
No. 100	334.6	68.1	26.7	
No. 200	68.1	13.9	12.8	
Pan ^{56.3} _{6.8}	63.1	12.8		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 491.3 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED ^{From} ~~XXXX~~ Boring #12

IDENTIFICATION: Depth 5-10'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 12.8 %

CHECKED BY: _____

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road P. O. Box 19012 Green Bay, Wisconsin 54307-9012 414/497-2500

COMPACTION CONTROL REPORT

DATE: 9/18/86 JOB NAME: Adams County Feasibility Study SCOPE I.D. #: 86A22

1. LABORATORY COMPACTION TEST DATA

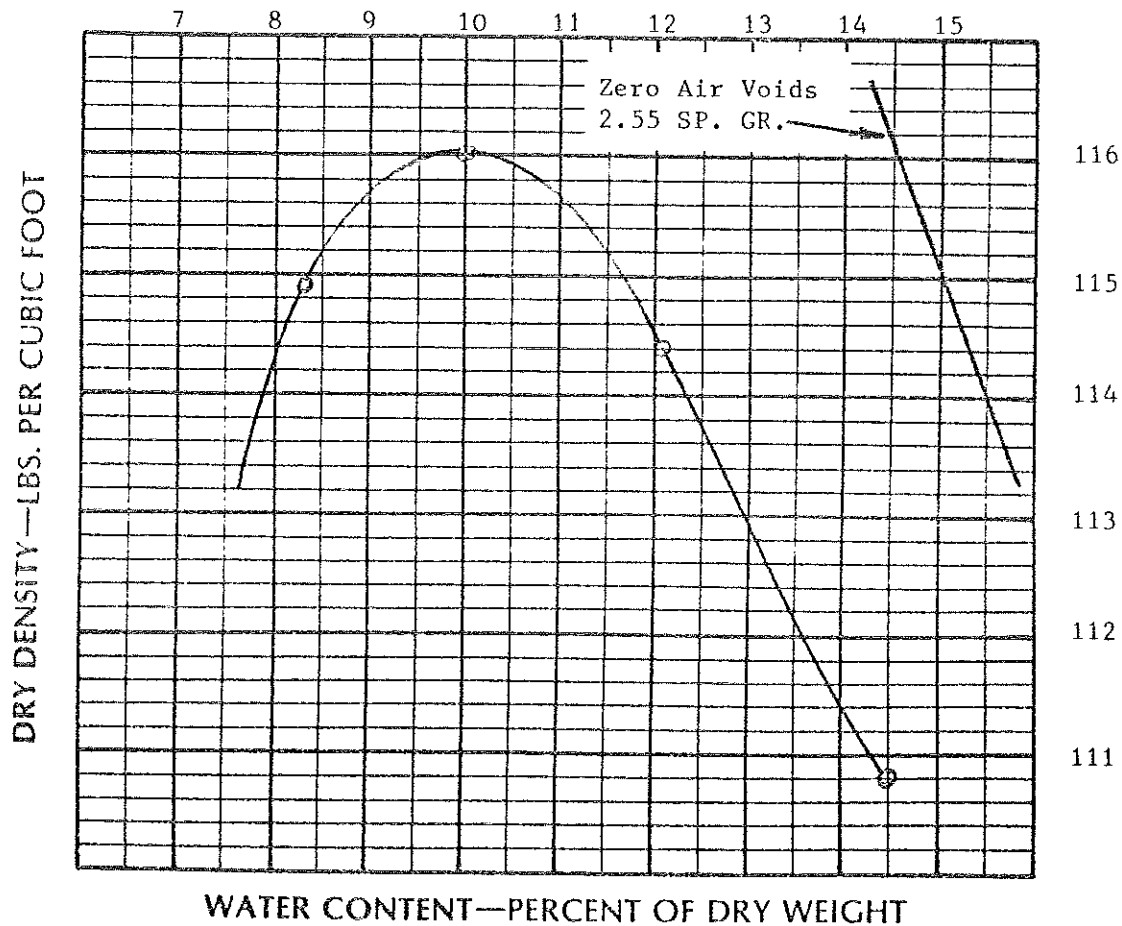
A. DESCRIPTION OF SOIL: SILTY SAND, fine grained, light brown (SM)

MATERIAL MARK FR-21 CLASSIFICATION _____ AASHO
SOURCE OF MATERIAL Boring 12 Depth 5-10' BPR

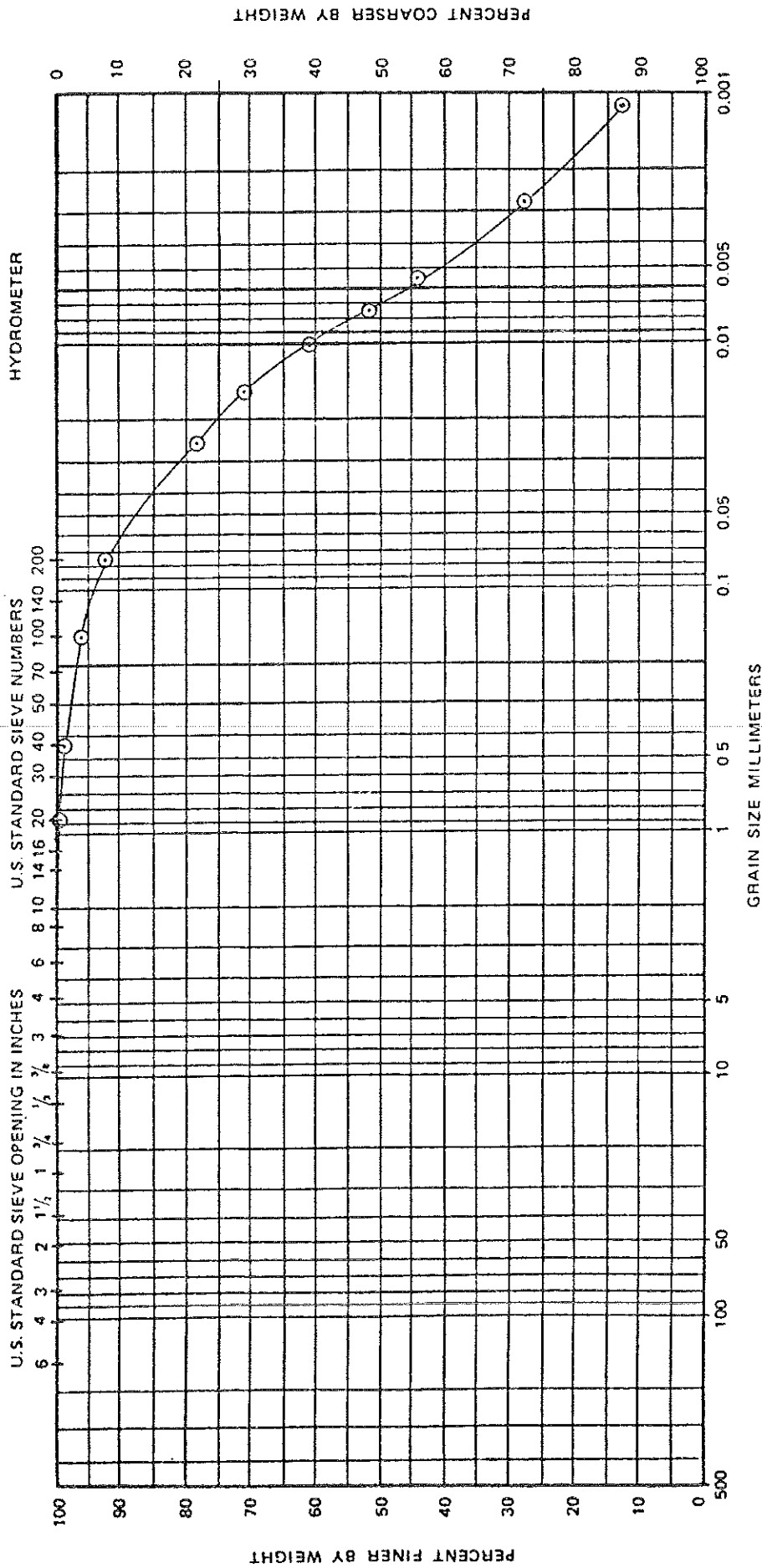
NATURAL WATER CONTENT _____ % NATURAL DRY DENSITY _____ PCF SPECIFIC GRAVITY _____
LIQUID LIMIT _____ % PLASTIC LIMIT _____ % PLASTICITY INDEX _____

B. TEST PROCEDURE USED: ASTM D1557 Method "A"

C. TEST RESULTS: OPTIMUM WATER CONTENT 10.0 %
MAXIMUM DRY DENSITY 116.0 PCF (AT A WET DENSITY OF 127.6 PCF)



GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT
Boring 12		LEAN CLAY, reddish	27.7	31	18	13	Adams County Feasibility Study
S-Tube	32'	brown (CL)					DATE: 8/15/86 PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES:					Foth & Van Dyke Industrial Inc. Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

FALLING/CONSTANT HEAD TEST

No. of Layers	
No. of Blows/Hammer Size	
Vol. of Water Added (c.c.)	
Wt. of Cyl. + Soil, Wm (lbs.)	
Wt. of Cyl., Wc (lbs.)	
Wt. of Soil, W (lbs.)	
Average Water Content, w(%)	
Moist Density, FM (lbs./ft. ³)	
Dry Density, FM (dry) (lbs./ft. ³)	
% Compaction	

JOB NO.:	86A22
BORING NO.:	12
SAMPLE NO.:	FR-16
DEPTH:	32'
TUBE DIAMETER	A = 2.80"
LENGTH OF SAMPLE	7.0"
DIST. FROM TOP OF TUBE TO LOWER WATER LEVEL	26.0 cm
DATE:	July 16, 1986
TECH. NAME:	R. Rouse

TIME	AM/PM	DATE	TIME INTERVAL (MIN.)	H @ START OF TEST	H @ FINISH	TARE	TOTAL WT. TARE + WATER, GR.	WEIGHT OF WATER, GR.	K CM/SEC.
16:25	AM/PM	7/16/86	---	SATURATION 102.8	---	207.3	---	---	
12:35	AM/PM	7/17/86	(1657)						
16:12	AM/PM	7/18/86	99,420	102.4	102.0	207.3	220.4	13.1	5.79×10^{-8}
16:12	AM/PM	7/18/86	(3986)						
10:38	AM/PM	7/21/86	239,160	102.0	101.2	207.3	217.1	9.8	4.84×10^{-8}
10:38	AM/PM	7/21/86	(2675)						
07:13	AM/PM	7/23/86	160,500	101.2	99.0	207.3	242.9	35.6	2.00×10^{-7}
07:13	AM/PM	7/23/86	(4546)						
10:59	AM/PM	7/26/86	272,760	99.0	94.4	207.3	288.9	81.6	3.00×10^{-7}
10:59	AM/PM	7/26/86	(4245)						
09:44	AM/PM	7/29/86	254,700	94.4	91.6	207.3	260.6	53.3	2.00×10^{-7}
09:44	AM/PM	7/29/86	(8931)						
14:35	AM/PM	8/04/86	535,860	91.6	84.6	207.3	329.6	122.3	2.00×10^{-7}
14:35	AM/PM	8/04/86	(8470)						
11:45	AM/PM	8/10/86	508,200	84.6	78.4	207.3	317.4	110.1	2.00×10^{-7}
11:45	AM/PM	8/10/86	(2635)						
07:40	AM/PM	8/12/86	158,100	78.4	76.5	207.3	239.3	32.0	2.00×10^{-7}
07:40	AM/PM	8/12/86	(8956)						
12:56	AM/PM	8/18/86	537,370	76.5	70.3	207.3	317.2	109.9	2.00×10^{-7}
12:56	AM/PM	8/18/86	(4120)						
09:36	AM/PM	8/21/86	247,200	70.3	67.4	207.3	255.3	48.0	3.00×10^{-7}
09:36	AM/PM	8/21/86	(5794)						
10:10	AM/PM	8/25/86	347,640	67.4	63.7	207.3	---	---	2.00×10^{-7}
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM						Perm Rate		2×10^{-7}

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 22 to 25, 1986

REPORT NO.: FR-16

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Material for Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi- cations
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4				
No. 8				
No. 10	---	---	100	
No. 16				
No. 20	.4	.2	99.8	
No. 30				
No. 40	1.5	.8	99.0	
No. 50				
No. 80				
No. 100	5.5	3.0	96.0	
No. 200	6.2	3.4	92.6	
Pan	171.2	92.6		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 184.8 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #12

IDENTIFICATION: Sampled at 30-32'

DATE SAMPLED: _____

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

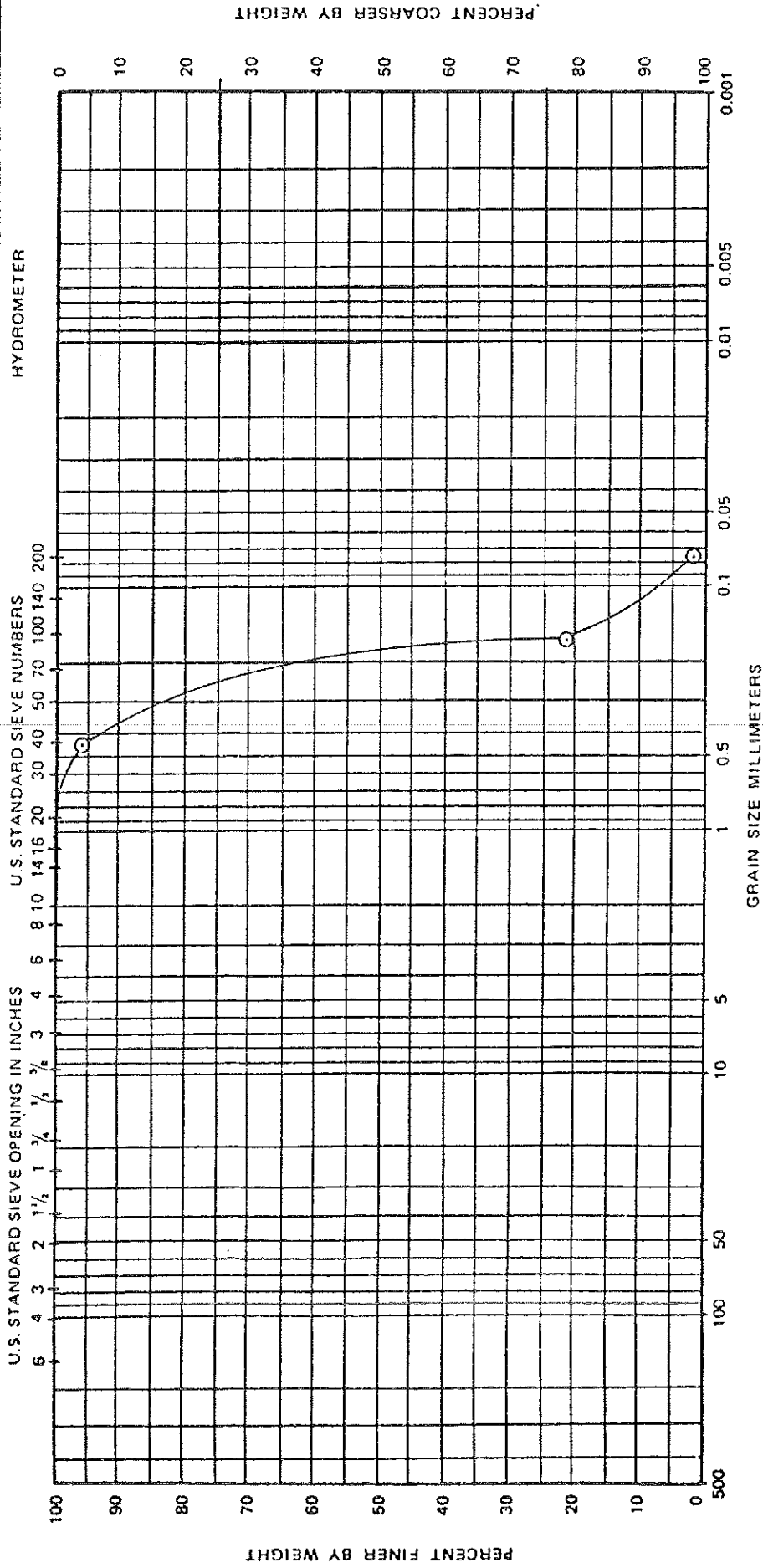
DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 92.6 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI					
Boring 13		SAND, fine grained	3.9								
S-3	10.0'	brown									
		(SP)									
DRAWN BY: RRR	APPROVED BY:	NOTES:									
PROJECT Adams County Feasibility Study											
DATE: 8/15/86 PROJECT NO: 86A22											
Foth & Van Dyke Industrial Inc. Waste/Energy Division											

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: July 11 to 15, 1986

REPORT NO.: FR-8

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi-cations
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	6.2	4.6	95.4	
No. 50				
No. 80				
No. 100	100.0	74.3	21.2	
No. 200				
Pan .2 2.6	2.8	2.1		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 134.7 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: from Boring #13

IDENTIFICATION: Sample #3 @ 10.0'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: yes

PERCENT PASSING NO. 200 SIEVE 2.1 %

CHECKED BY: _____

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT: Adams County Study

JOB NO.: 86A22

DATE: September 10, 1986

PERMEABILITY TEST CONSTANT HEAD

SAMPLE NO.: FR-20 Boring #13 at 10' - 13' depth

SOIL DESCRIPTION: Sand, fine grained, brown (SP)

% COMPACTION = 91 1/2

COMPACTED DRY DENSITY = 101.7 pct

MOISTURE = 5.6%

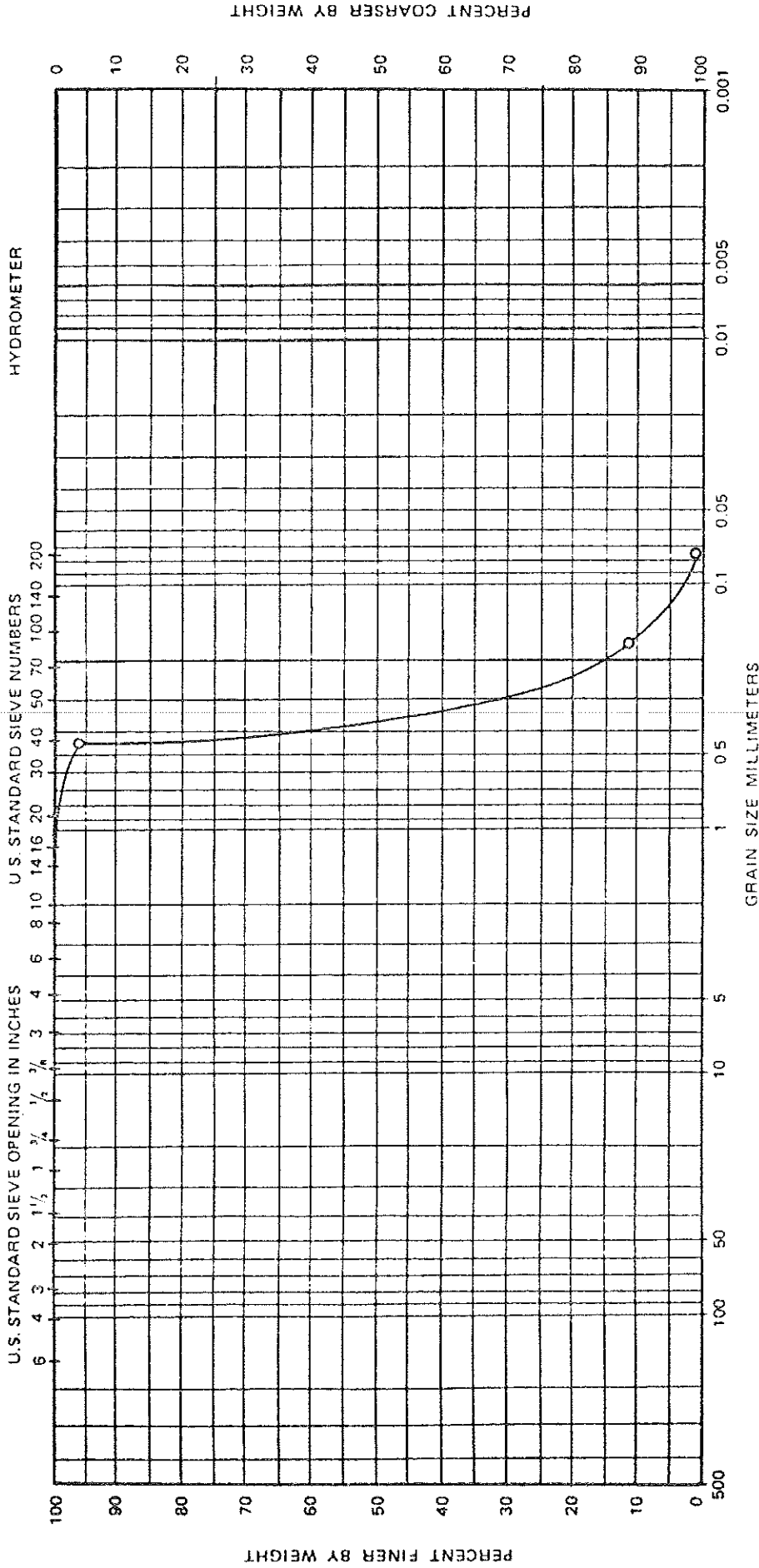
SAMPLE DIAMETER = 4.00"

SAMPLE HEIGHT = 4.5625" (4 9/16")

<u>RUN NO.</u>	<u>HEAD, INCHES ^{CM}</u>	<u>DURATION, MINUTES ^{Seconds}</u>	<u>PERMEABILITY, CM/SEC.</u>	<u>REMARKS</u>
1	82.1	15	7.66×10^{-3}	
2	82.1	15	7.37×10^{-3}	
3	82.1	15	7.40×10^{-3}	
4	82.1	15	7.31×10^{-3}	
5	82.1	15	7.09×10^{-3}	

Average of Tests = 7.37×10^{-3}

GRAIN SIZE ANALYSIS



COBBLES		GRAVEL		SAND		SILT OR CLAY	
COARSE	FINE	COARSE	FINE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT
Boring 13	10-13'	SAND, fine grained, brown (SP)					Adams County Feasibility Study
DRAWN BY:	APPROVED BY:	NOTES:	DATE: 9-12-86 PROJECT NO: 86A22				
RRR			Foth & Van Dyke Waste/Energy Division				

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22 FR

DATE: September 10 to 11, 1986

REPORT NO.: FR-20

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch	0	0	100	
No. 4	0	0	100	
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	17.4	4.3	95.7	
No. 50				
No. 80				
No. 100	346.1	84.7	11.0	
No. 200	41.7	10.2	0.8	
Pan	3.4	0.8		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 408.6 grams

SUBMITTED BY: Janis Schallhorn of Foth & Van Dyke

FROM:

SAMPLED ~~KXXXX~~ Boring 13

IDENTIFICATION: Depth 10' - 13'

DATE SAMPLED: June, 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

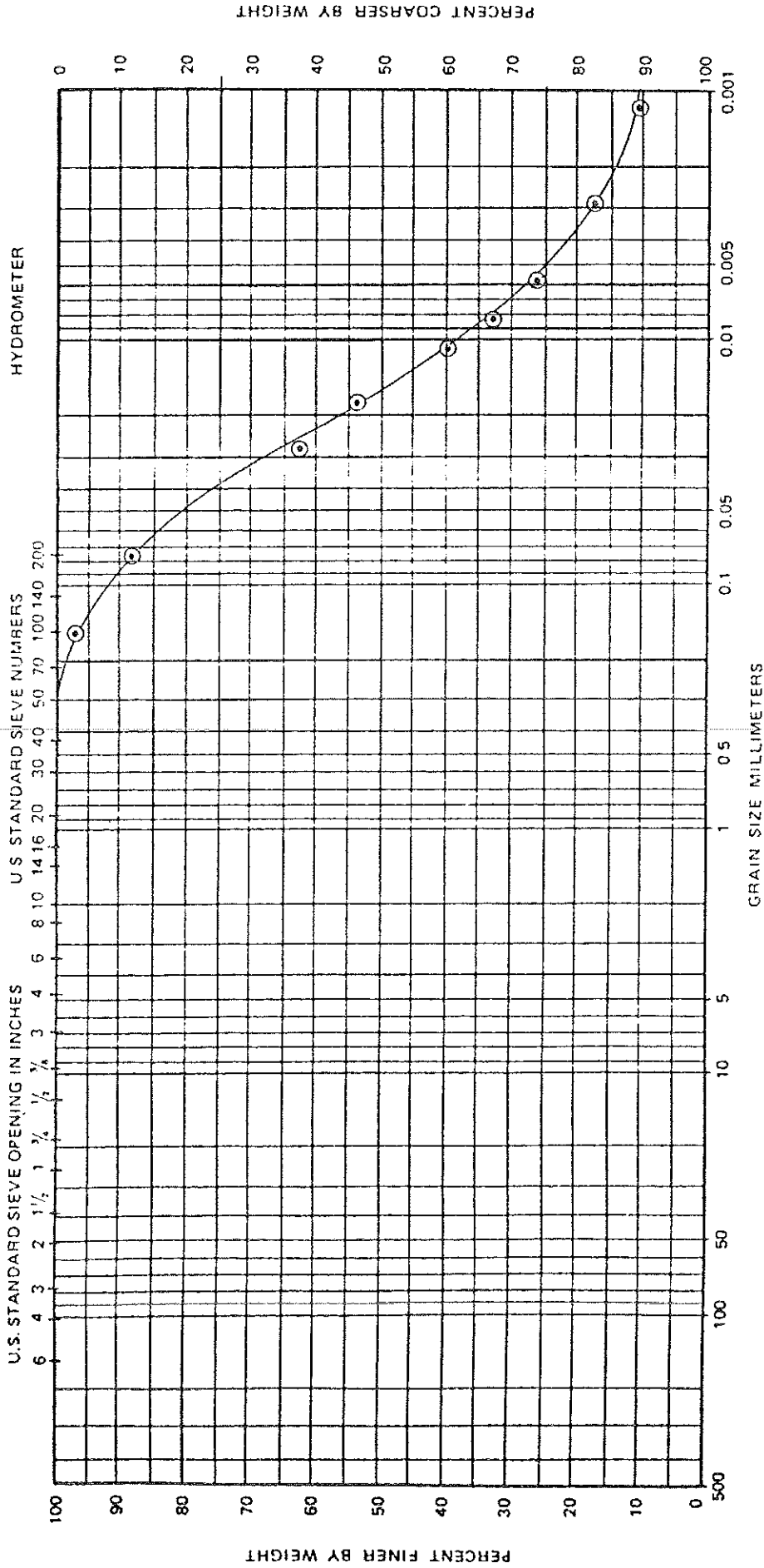
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 0.8 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 19 to 22

REPORT NO.: FR13

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi- cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	0	0	100	
No. 50				
No. 80				
No. 100	3.2	2.8	97.2	
No. 200	10.4	9.2	88.0	
Pan	99.9	88.4		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 113.0 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring #13

IDENTIFICATION: Sample #7 @ 30'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

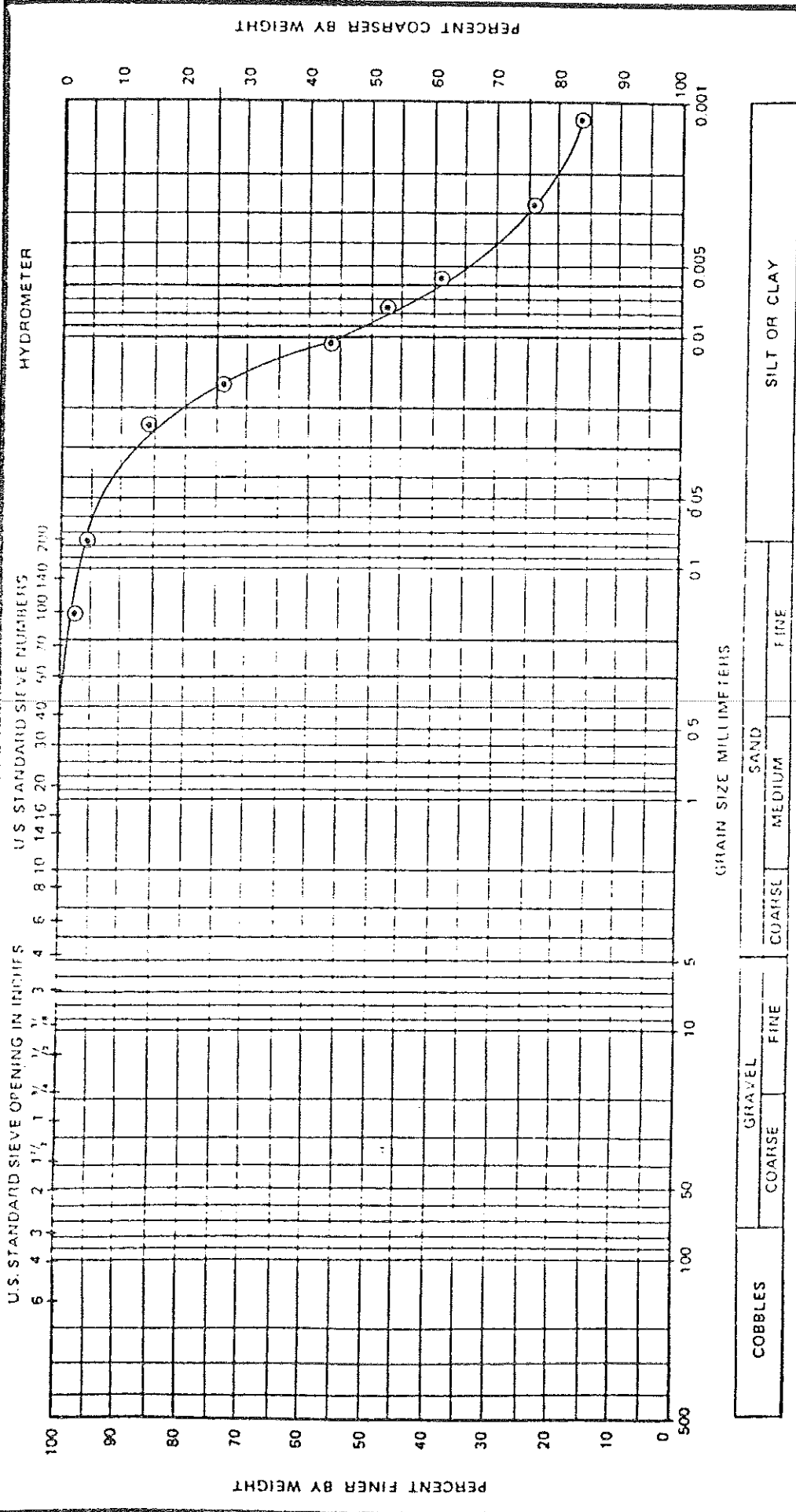
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 88.0 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT. %	LL	PL	PI	PROJECT
B-14		LEAN CLAY, reddish	24-1				Adams County Feasibility Study
S-6	30'	brown					DATE: 8/25/86 PROJECT NO: 86A22
DRAWN BY: RRR	APPROVED BY:	NOTES: (CL)	Foth & Van Dyke Water Energy Division				

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 19 to 22, 1986

REPORT NO.: FR14

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifi- cations
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4				
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	0	0	100	
No. 50				
No. 80				
No. 100	2.0	2.0	98	
No. 200	1.3	1.3	96.7	
Pan	94.6	96.6		
Fineness Modulus				

RECEIVED AT LABORATORY: June 23, 1986

QUANTITY REPRESENTED: 97.9 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring 14

IDENTIFICATION: Sample #6 @ 30'

DATE SAMPLED: June 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

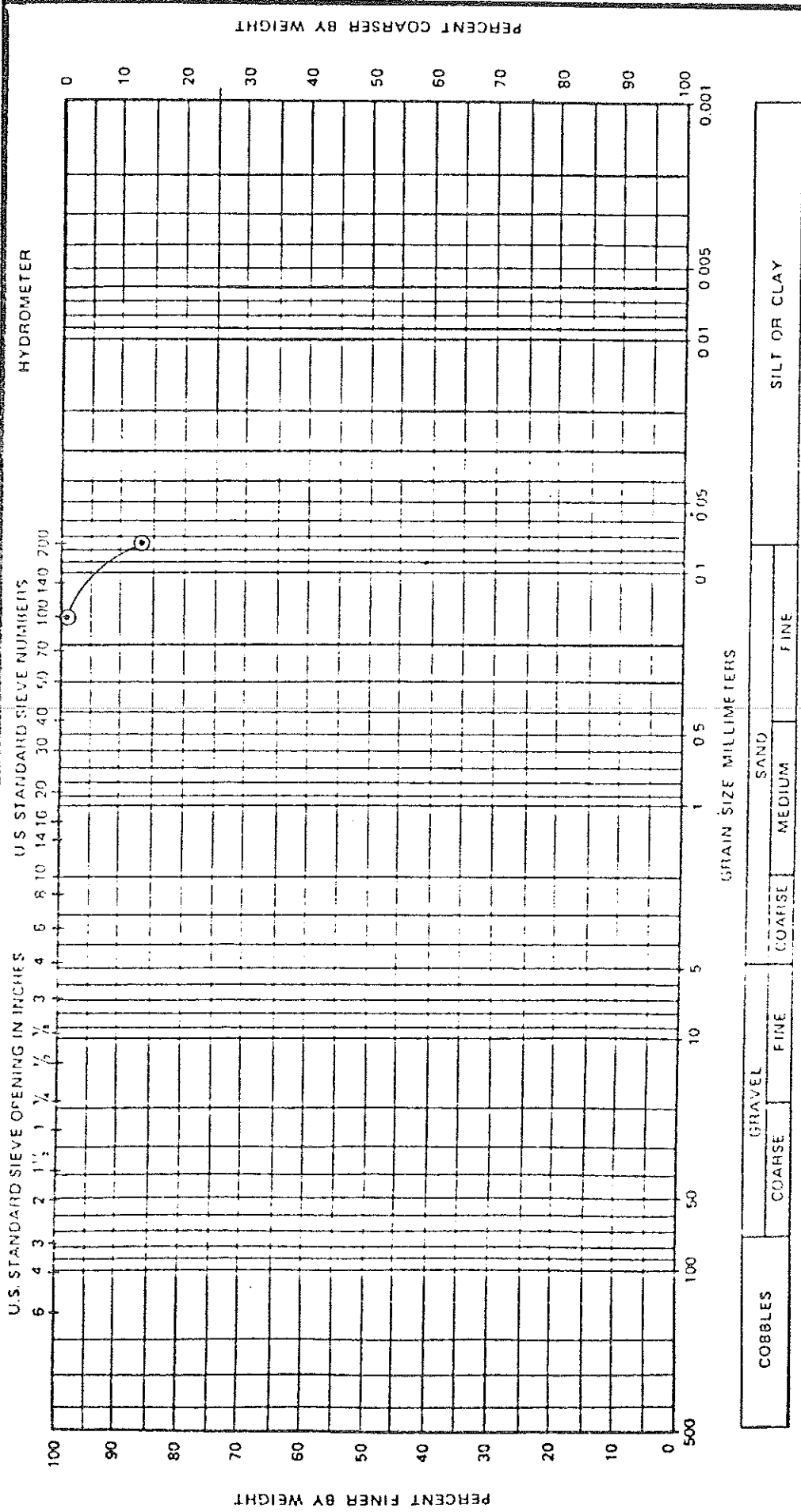
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 96.6 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT% 21.9	LL	PL	PI
Boring MW-16 S-3	15' to 16.5'	SILT, grayish brown (ML)				
DRAWN BY: RRR	APPROVED BY:	NOTES:				

PROJECT Adams County Feasibility Study

DATE: 8/27/86 PROJECT NO: 86A22

Boh & Van Dyke
Water Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road
P. O. Box 19012
Green Bay, Wisconsin 54307-9012
414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 26 to 27, 1986

REPORT NO.: FR-22

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Speci- fications
3-Inch				
2-Inch				
1½-Inch				
1-Inch				
¾-Inch				
½-Inch				
⅜-Inch				
No. 4	0	0	100	
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	0	0	100	
No. 50				
No. 80				
No. 100	1.5	1.2	98.8	
No. 200	14.0	11.6	87.2	
Pan	105.7	87.2		
Fineness Modulus				

RECEIVED AT LABORATORY: August 20, 1986

QUANTITY REPRESENTED: 121.2

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring MW-16

IDENTIFICATION: Sample #3 @ 15' to 16.5'

DATE SAMPLED: August 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

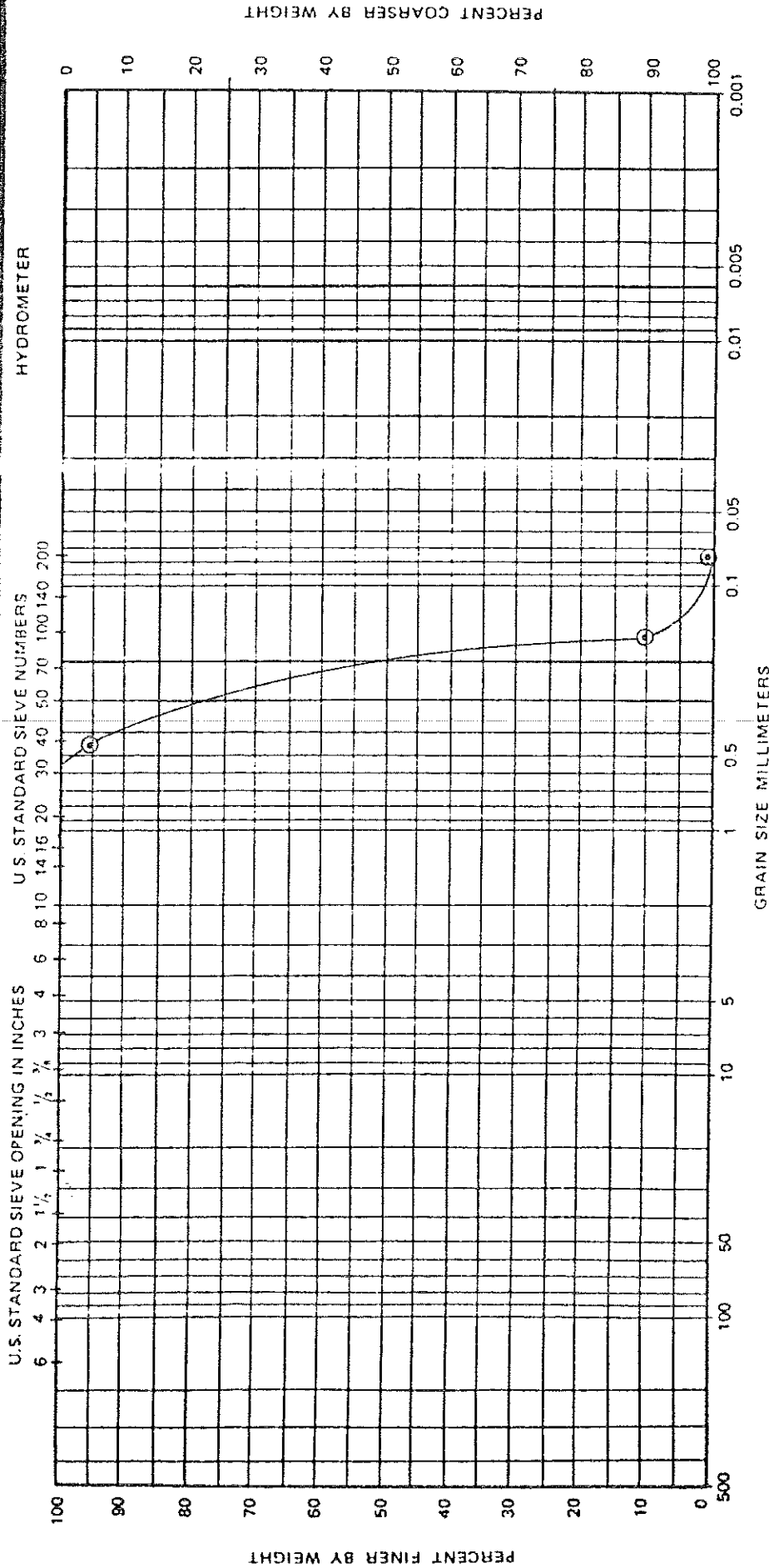
WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 87.2 %

Moisture Content of Sample = 21.9%

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES	GRAVEL		SAND			SILT OR CLAY	
	COARSE	FINE	COARSE	MEDIUM	FINE		

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI	PROJECT	Adams County Feasibility Study
Boring MW-17		SAND, fine grained, light brown					DATE: 8/27/86	PROJECT NO: 86A22
S-4	20' to 21.5'	(SP)						
DRAWN BY: RRR	APPROVED BY:	NOTES:	Fath & Van Dyke Waste/Energy Division					

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 26 to 27, 1986

REPORT NO.: FR-23

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Speci- fications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4	0	0	100	
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	7.4	4.4	95.6	
No. 50				
No. 80				
No. 100	143.9	85.5	10.1	
No. 200	15.1	9.0	1.1	
Pan	1.5	0.9		
Fineness Modulus				

RECEIVED AT LABORATORY: August 20, 1986

QUANTITY REPRESENTED: 168.3g

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring MW-17

IDENTIFICATION: Sample #4 @ 20' to 21.5'

DATE SAMPLED: August 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

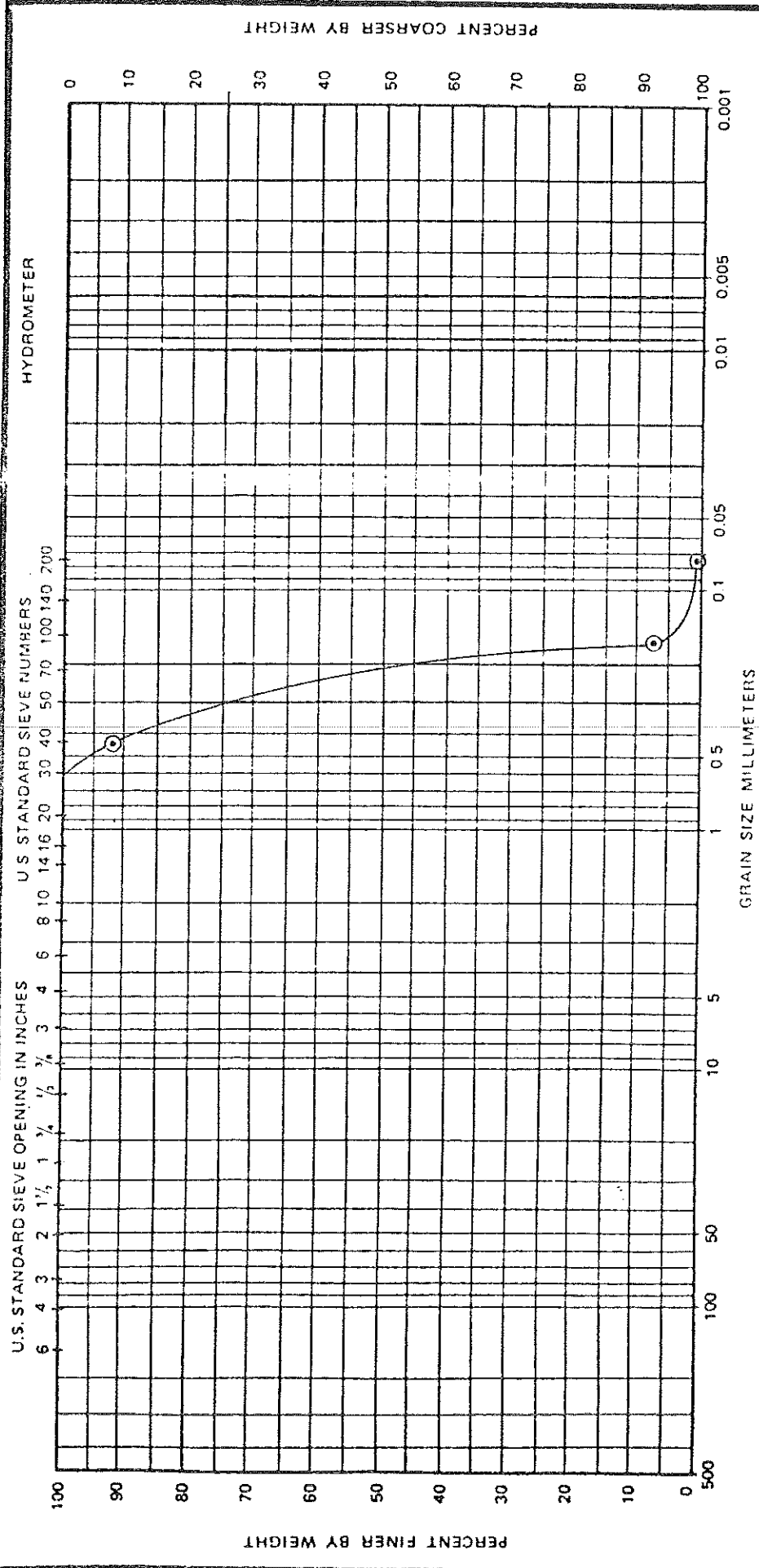
DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 1.0 %

CHECKED BY: _____

GRAIN SIZE ANALYSIS



COBBLES		GRAVEL		SAND		SILT OR CLAY	
COARSE	FINE	COARSE	MEDIUM	FINE			

SAMPLE NO.	ELEV. OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI
Boring MW-1B		SAND, fine grained				
S-1	5.0' to 6.5'	light brown				
		(SP)				
DRAWN BY:	APPROVED BY:	NOTES:				
RRR						

PROJECT Adams County Feasibility Study	
DATE: 8/26/86	PROJECT NO: 86A22

Foth & Van Dyke
Waste/Energy Division

Foth & Van Dyke

Engineers/Architects

2737 S. Ridge Road

P. O. Box 19012

Green Bay, Wisconsin 54307-9012

414/497-2500

PROJECT NO.: _____

JOB NO.: 86A22

DATE: August 26 to 27, 1986

REPORT NO.: FR-24

REPORT OF ANALYSIS OF AGGREGATES

ARCHITECT/ENGINEER: Foth & Van Dyke CONTRACTOR: _____

PROJECT: Adams County Feasibility Study SOURCE: _____

REPORT OF TESTS OF: Proposed Landfill

Sieve Size or No.	Weight Retained	% Retained	% Passing	Specifications
3-Inch				
2-Inch				
1 1/2-Inch				
1-Inch				
3/4-Inch				
1/2-Inch				
3/8-Inch				
No. 4	0	0	100	
No. 8				
No. 10	0	0	100	
No. 16				
No. 20				
No. 30				
No. 40	12.5	7.6	92.4	
No. 50				
No. 80				
No. 100	140.4	84.8	7.6	
No. 200	11.7	7.1	0.5	
Pan	0.9	0.5		
Fineness Modulus				

RECEIVED AT LABORATORY: August 20, 1986

QUANTITY REPRESENTED: 165.5 grams

SUBMITTED BY: Janis Schallhorn of F&VD

SAMPLED FROM: Boring MW-18

IDENTIFICATION: Sample #1 @ 5' to 6.5'

DATE SAMPLED: August 1986

INTENDED USE: _____

REMARKS:

ORGANIC MATTER, COLORIMETRIC: _____

COAL AND LIGNITE: _____

CLAY LUMPS: _____

CHERT: _____

SOFT PARTICLES: _____

PERCENT ABSORPTION: _____

SPECIFIC GRAVITY: _____

DRY RODDED WGT: _____

WASHED GRADATION: Yes

PERCENT PASSING NO. 200 SIEVE 0.5 %

CHECKED BY: _____

APPENDIX H

Infield Permeability Data

INFIELD PERMEABILITY REPORT

Bail Down Test Methodology

Each bail down test was conducted by initially putting a pressure transducer, with LCD readout in feet, into a well below the static water level. After recording the initial water level, a four foot by 3/4-inch galvanized iron pipe was lowered below the water level, the water was allowed to stabilize and the stabilized reading was recorded. The pipe was then removed from the well. At the instant the minimum water level reading was recorded (a few seconds into the test) a stopwatch was started and rising water level measurements (h) with time (t) were recorded.

The analytical methodology used to evaluate these data is based upon theory presented by Spangler and Handy*.

The formula for hydraulic conductivity is:

$$K = 0.617 * \frac{r}{S} * \frac{dh}{dt} * 30.48 \text{ cm/ft}$$

Where:

K = hydraulic conductivity (cm/second)

r = borehole radius (ft)

S = a coefficient which is dependent on the ratios h/d and r/d (Fig. 11-11 of Soil Engineering),

d = depth of borehole below water table (ft).

h = depth (ft) of water in hole at the time dh/dt is determined

dh/dt = rate of rise of water level (ft/second) in hole at depth h , and

t = time (seconds),

* Spangler, M.G. and R.L. Handy, Soil Engineering, 3rd Edition, Intext Educational Publishers, New York, 1973, p. 253-256.

Slug Test Methodology

Each slug test was conducted by initially putting a pressure transducer, with LCD readout in feet, into a well below the static water level. After recording the initial starting level (H), a four foot by 3/4-inch galvanized iron pipe (slug) was lowered below the water level and the maximum water level reading (H₀) recorded. At the instant this maximum water level was reached (a few seconds into the test), a stopwatch was started and declining water level measurements (h) with time (t) were recorded.

Also noted for the purposes of data evaluation were the well casing diameter (r), the boring diameter (R), and the well screen length (L).

The analytical methodology used to evaluate these data is based upon theory presented by Freeze and Cherry*. The formula for hydraulic conductivity (K) is:

$$K = \frac{r^2 \ln(L/R)}{2 LT_0}$$

The key variable in this equation is T₀, the basic time lag. T₀ is derived by plotting the natural logarithm of the residual head ratio (RHR - the ratio of [h-H], the difference between the maximum rise in water level and the starting water level), against the time (t) at which the head measurement (h) was taken. On semi-log paper these points plot as a straight line.

FIGURE NO. H-1

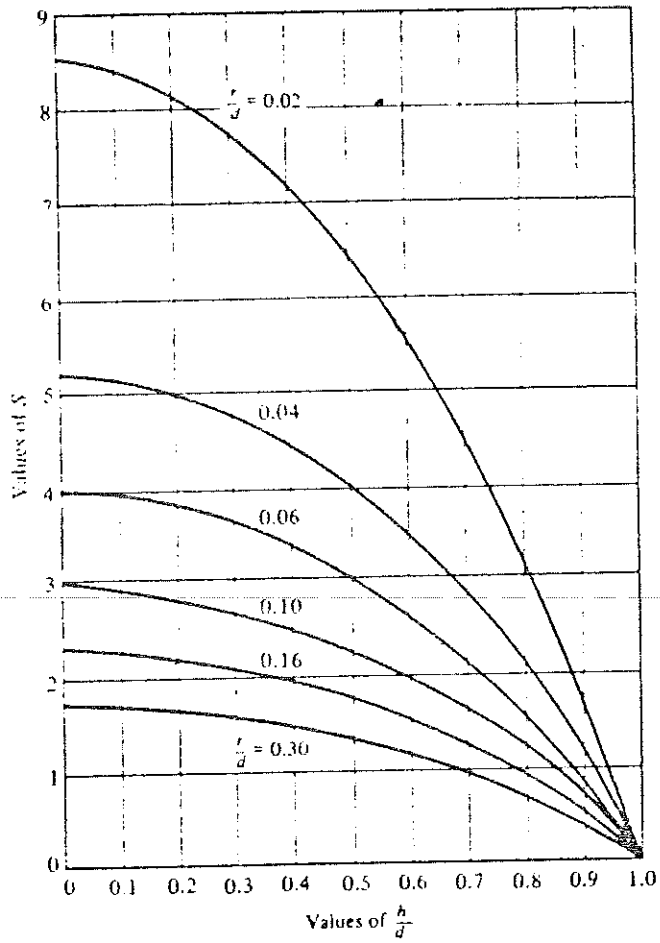


Fig. 11-11. Values of S in Eq. (11-17).

Source: Spangler, M.G. and R.L. Handy, Soil Engineering, 3rd. Edition, Intext Educational Publishers, New York, 1973, p. 255

WATER TABLE MONITORING WELL
HYDRAULIC CONDUCTIVITY SUMMARY

Well	t (sec)	r (ft)	d (ft)	r/d	h (ft)	h/d	S	dh/dt (ft/s)	K (cm/s)
MW-1*	10	0.292	11.95	0.02	11.89	0.99	0.1	0.015	6.9×10^{-2}
MW-2*	40	0.292	12.56	0.02	11.90	0.95	0.8	0.002	1.1×10^{-3}
MW-3*	15	0.292	13.32	0.02	12.62	0.95	0.8	0.015	7.7×10^{-3}
MW-6	15	0.333	11.60	0.03	10.90	0.94	0.8	0.007	4.7×10^{-3}
MW-7	5	0.333	5.62	0.06	5.24	0.93	0.6	0.022	4.1×10^{-2}
MW-8	15	0.333	7.21	0.05	6.71	0.93	0.7	0.007	8.7×10^{-3}
MW-9	10	0.333	3.53	0.09	3.02	0.86	1.0	0.0075	1.3×10^{-2}
MW-16	15	0.333	6.70	0.05	6.18	0.92	0.8	0.014	1.6×10^{-2}
MW-17	15	0.333	10.58	0.03	9.84	0.93	1.1	0.010	5.4×10^{-3}
MW-18	15	0.333	6.40	0.05	5.91	0.92	0.8	0.013	1.6×10^{-2}

*Screen wrapped in filter fabric

The slope of this line is used to determine the time (t) at which $\ln(RHR)$ is -1. This time value is T_0 , which is then used in the above equation to calculate the value of hydraulic conductivity for the test.

* Freeze, R.A. and J.A. Cherry, Groundwater,
Prentice-Hall, Inc. Englewood Cliffs, New Jersey,
1979, pp. 340-341.

IN FIELD HYDRAULIC CONDUCTIVITY SUMMARY
PIEZOMETER RESULTS - SLUG TEST METHOD

<u>Well</u>	<u>K (cm/s)</u>
MW-3P	2.4×10^{-4}
MW-6P	4.5×10^{-4}
MW-7P	2.2×10^{-3}
MW-18P	4.6×10^{-4}

ADAMS COUNTY LANDFILL
FEASIBILITY STUDY PERMEABILITY TESTS
SLUG TEST RESULTS: WELL 3P

Equation: $K = \frac{r^2 \ln(L/R)}{2 L T_o}$

~~r = well radius = 2.54 cm~~

L = screen sand pack length = 228.60 cm

R = borehole radius = 5.08 cm

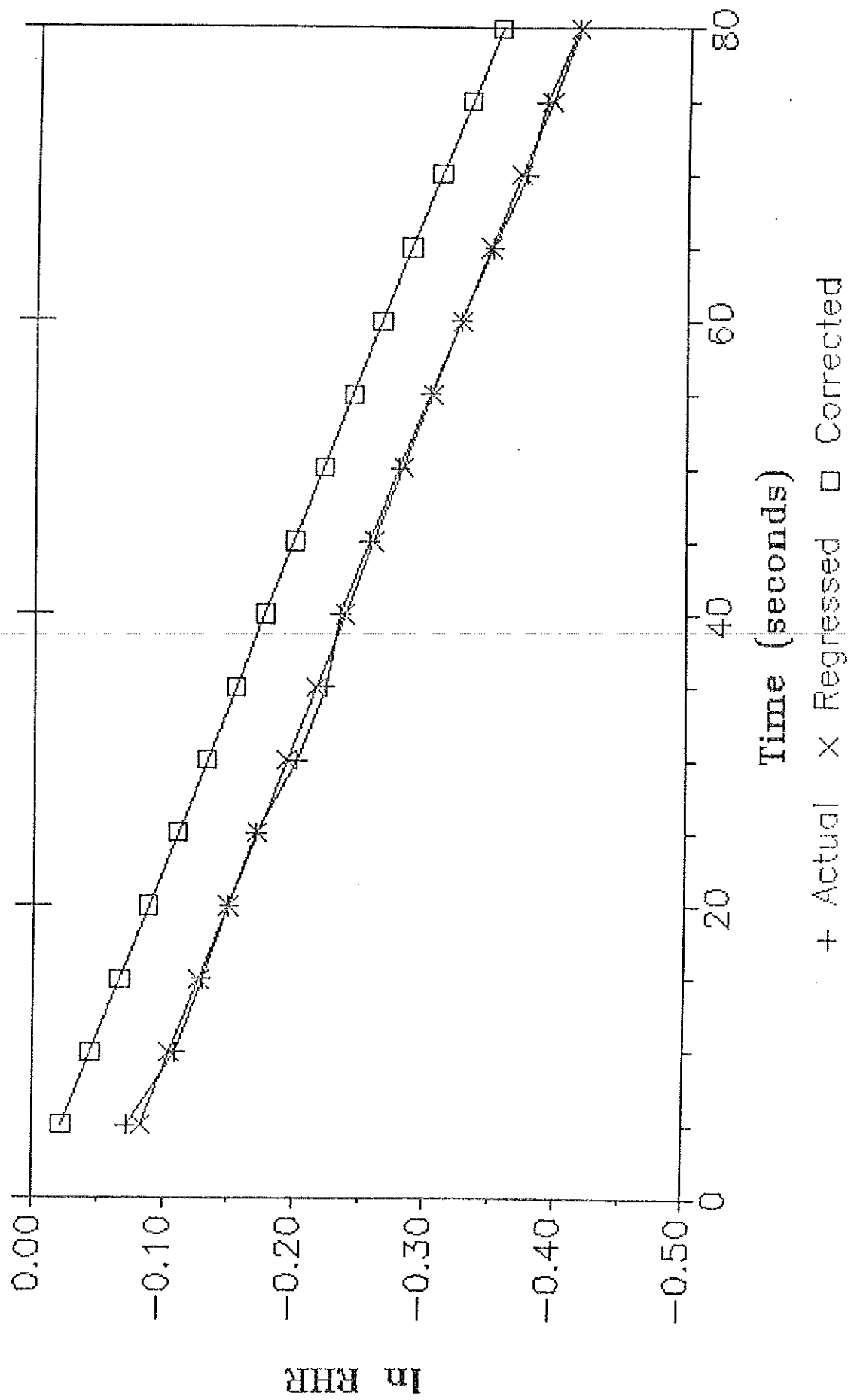
H_o = initial head difference = 1.15 feet

T_o = time lag = 224.8 seconds

---> K = hydraulic conductivity = 2.4×10^{-4} cm/second

Note: -T_o corresponds to the time when the natural log
(ln) of the residual head ratio is -1.00
-RHR is the Residual Head Ratio which is the ratio
of the unrecovered head difference (H) and the
initial head difference (H_o) created by the
added/removed water

ADAMS COUNTY LANDFILL Feasibility Study Permeability Tests Well MW-3P



Data From Slug Test

ADAMS COUNTY LANDFILL
FEASIBILITY STUDY PERMEABILITY TESTS
SLUG TEST RESULTS: WELL 6P

Equation: $K = \frac{r^2 \ln(L/R)}{2 L T_o}$

r = well radius = 2.54 cm

L = screen sand pack length = 243.84 cm

R = borehole radius = 5.08 cm

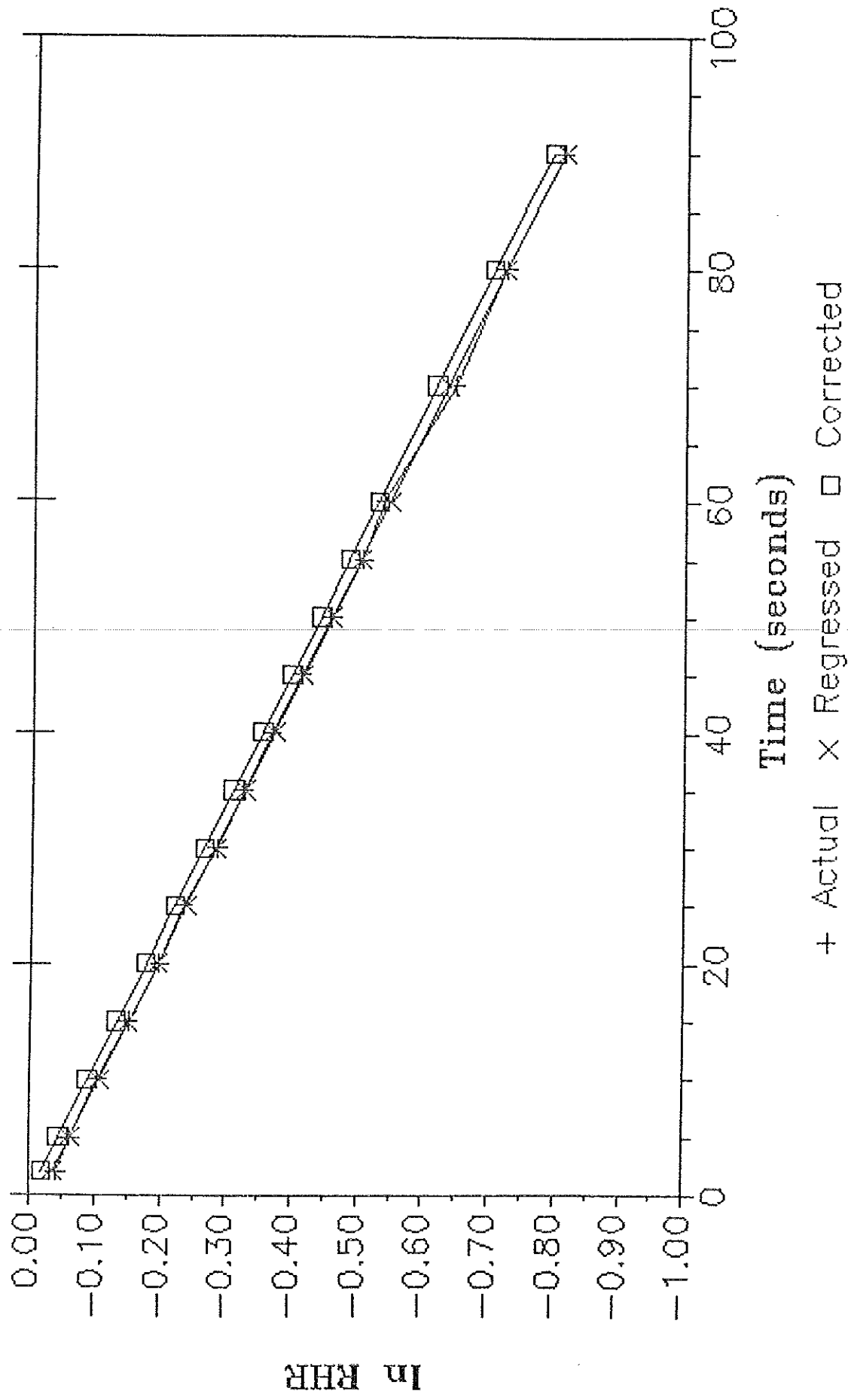
H_o = initial head difference = 1.01 feet

T_o = time lag = 112.9 seconds

---> K = hydraulic conductivity = 4.5×10^{-4} cm/second

Note: - T_o corresponds to the time when the natural log
($\ln$) of the residual head ratio is -1.00
-RHR is the Residual Head Ratio which is the ratio
of the unrecovered head difference (H) and the
initial head difference (H_o) created by the
added/removed water

ADAMS COUNTY LANDFILL Feasibility Study Permeability Tests Well MW - 6P



ADAMS COUNTY LANDFILL
FEASIBILITY STUDY PERMEABILITY TESTS
SLUG TEST RESULTS: WELL 7P

Equation: $K = \frac{r^2 \ln(L/R)}{2 L T_o}$

r = well radius = 2.54 cm

L = screen sand pack length = 243.84 cm

R = borehole radius = 5.08 cm

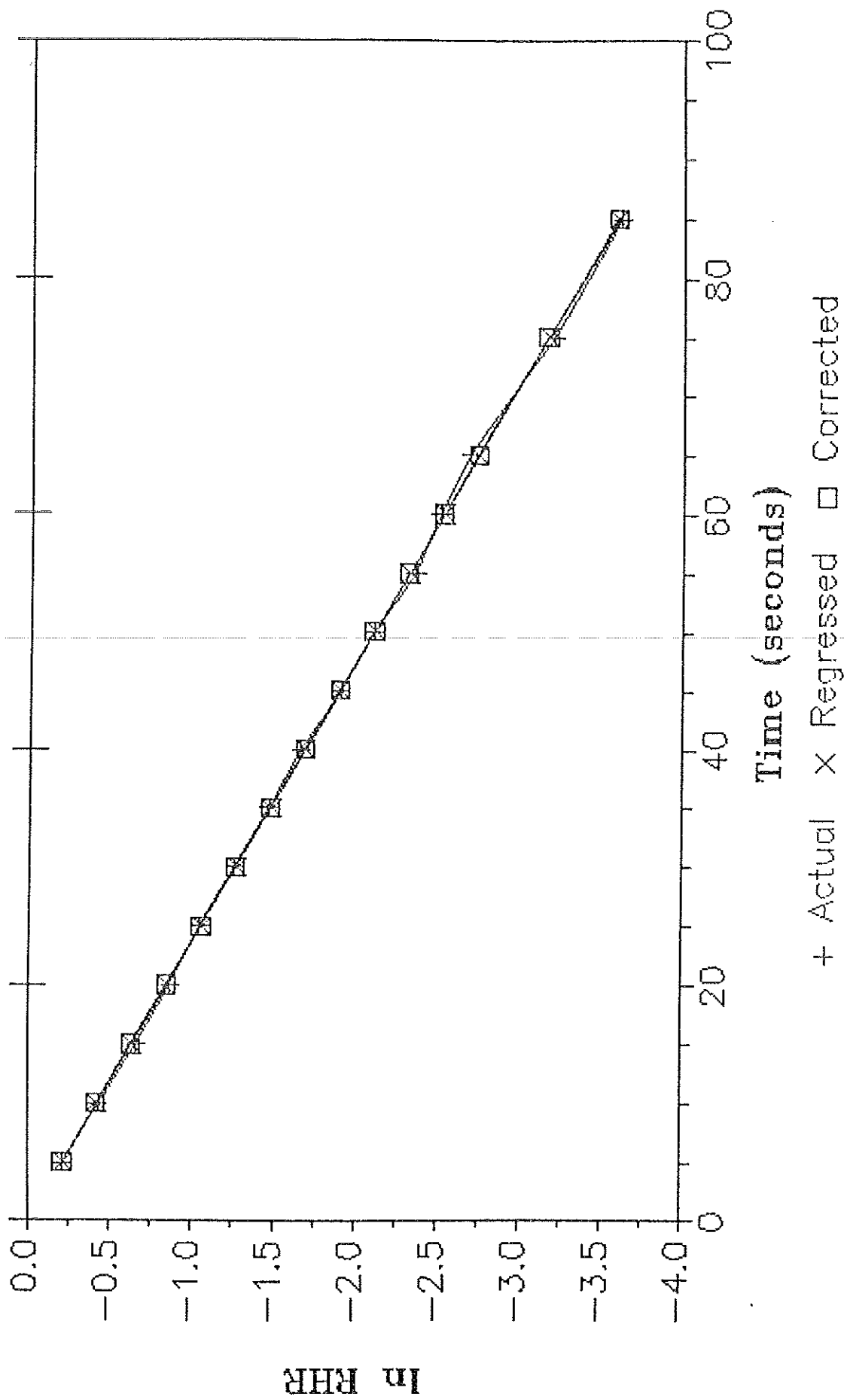
H_o = initial head difference = 0.74 feet

T_o = time lag = 23.6 seconds

---> K = hydraulic conductivity = 2.2×10^{-3} cm/second

Note: - T_o corresponds to the time when the natural log
($\ln$) of the residual head ratio is -1.00
-RHR is the Residual Head Ratio which is the ratio
of the unrecovered head difference (H) and the
initial head difference (H_o) created by the
added/removed water

ADAMS COUNTY LANDFILL Feasibility Study Permeability Tests Well MW - 7P



ADAMS COUNTY LANDFILL
FEASIBILITY STUDY PERMEABILITY TESTS
SLUG TEST RESULTS: WELL 18P

Equation:
$$K = \frac{r^2 \ln(L/R)}{2 L T_o}$$

r = well radius = 2.54 cm

L = screen sand pack length = 228.60 cm

R = borehole radius = 5.08 cm

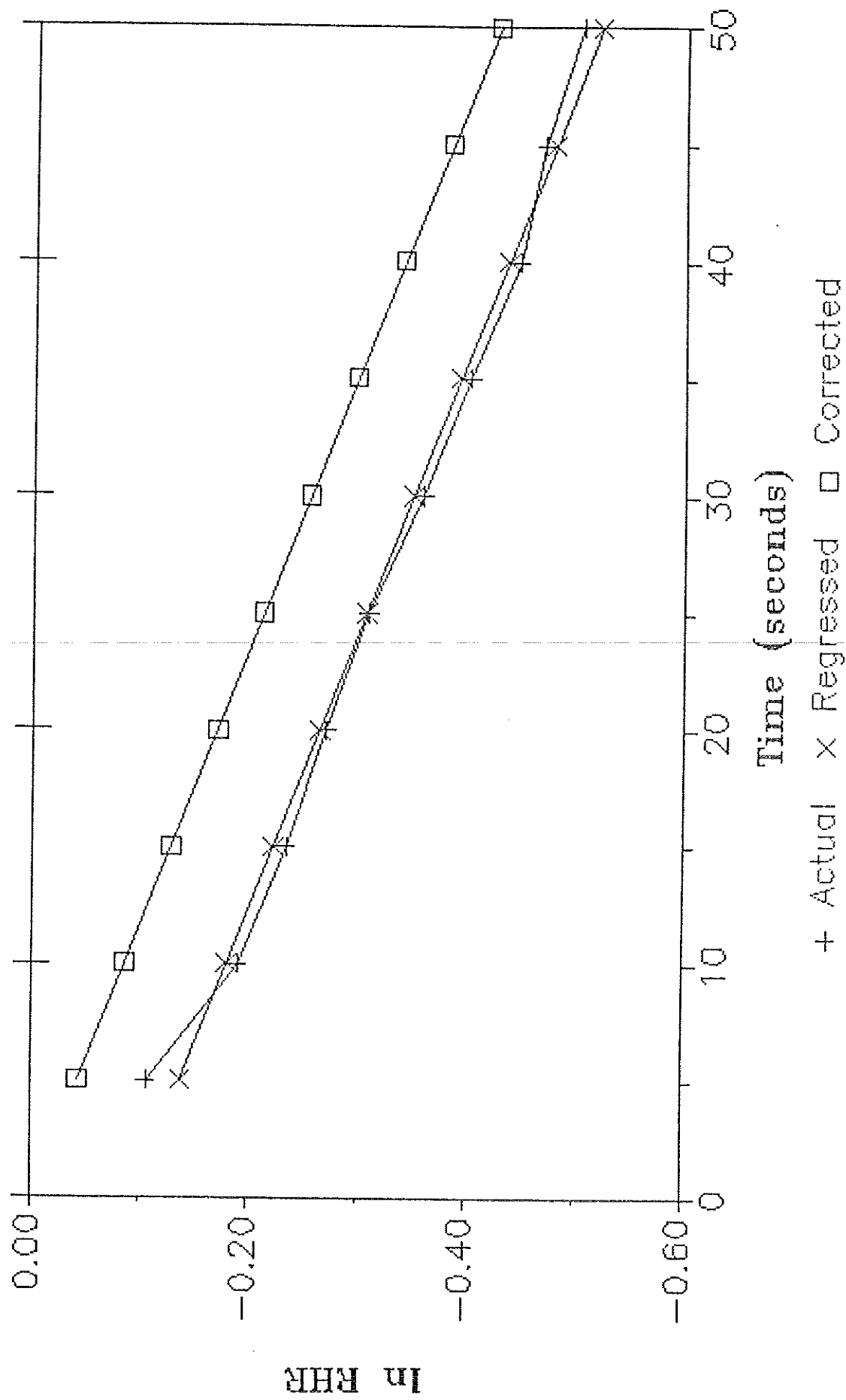
H_o = initial head difference = 1.39 feet

T_o = time lag = 116.6 seconds

---> K = hydraulic conductivity = 4.6×10^{-4} cm/second

Note: $-T_o$ corresponds to the time when the natural log
($\ln$) of the residual head ratio is -1.00
-RHR is the Residual Head Ratio which is the ratio
of the unrecovered head difference (H) and the
initial head difference (H_o) created by the
added/removed water

ADAMS COUNTY LANDFILL Feasibility Study Permeability Tests Well MW-18P



APPENDIX I
Private Well Logs

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

JAN 13 1985

1. COUNTY Adams		CHECK (✓) ONE: ☒ Town ☐ Village ☐ City			Name Strong's Prairie																												
2. LOCATION NE 1/4, SW 1/4		Section 11		Township: Range 18N 5E		3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE George G. Mock Jr.																											
R - Grid or Street No.		Street or Road Name Cottonville Lane		ADDRESS 1474 16th Ave., Rt. 1		ZIP CODE 54613																											
AND - If available subdivision name, lot & block No.				POST OFFICE Arkdale, WI																													
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building 4'		Sanitary Bldg. Drain C.I. Other		Sanitary Bldg. Sewer C.I. Other		Floor Drain Connected To: C.I. Sewer Other Sewer		Storm Bldg. Drain C.I. Other		Storm Bldg. Sewer C.I. Other																					
Foot Sewer		Other Sewers		Foundation Drain Connected to: Sewer Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench		Manure Hopper or Retention or Pneumatic Tank																			
San.		Storm		C.I. Other		Clearwater Dr.		Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench		Manure Hopper or Retention or Pneumatic Tank															
Pit		Well		Pump		Tank		Subsurface Pumproom Nonconforming Existing		Barn Gutter		Animal Barn Pen		Animal Yard		Silo With Pit		Glass Lined Storage Facility		Silo w/o Pit		Earthen Silage Storage Trench Or Pit		Earthen Manure Basin									
Temporary Manure Tank or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pipe		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls		Other (Describe)																					
5. Well is intended to supply water for: Residential Use										9. FORMATIONS																							
6. DRILLHOLE										Kind										From (ft.)		To (ft.)											
Dia. (in.)										From (ft.)										To (ft.)													
5"										Surface										5'		66'		Sand		Surface		20'					
																								Clay		20'		39'					
																								Sand		39'		66'					
7. CASING, LINER, CURBING AND SCREEN																																	
Dia. (in.)										Mfg. & Method of Assembly										From (ft.)		To (ft.)											
2"										Cyclops Corp. ASTM-A-589, 2" IPS .154 Wall, 3.75#/ft.										Surface		63'											
1 1/4"										3' Johnson Point (10 Slot)										63'		66'											
2"										Threaded Couplings																							
8. GROUT OR OTHER SEALING MATERIAL																																	
Kind										From (ft.)										To (ft.)													
None										Surface																							
11. MISCELLANEOUS DATA																																	
Yield Test: 1										Hrs. at 10										GPM		Well is terminated 12" inches		above final grade									
Depth from surface to normal water level 20										Ft.												Well disinfected upon completion		Yes No									
Depth of water level when pumping 23										Ft.										Stabilized		Yes No		Well sealed watertight upon completion		Yes No							
Water sample sent to										Wisconsin State Laboratory of Hygiene										laboratory on		January 15		1985									

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Business Name and Complete Mailing Address

5740 W. Brooklyn, Milwaukee, WI 53216

WELL CONSTRUCTOR'S REPORT
Form 300-15

SEP 18 1975 OCT 1 1975
WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

COUNTY <u>Adams</u>		CHECK ONE ☒ Town ☐ Village ☐ City		NAME <u>Strong's Prairie</u>	
LOCATION - 1/4 Section <u>SE 1/4</u>	Section <u>13</u>	Township <u>18 N</u>	Range <u>5 E</u>	3. OWNER AT TIME OF DRILLING <u>J. C. Dennis</u>	
Road or street no.		Street name		ADDRESS	
D - If available subdivision name, lot & block no.				POST OFFICE <u>Friendship</u>	
Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING <u>5</u>	SANITARY C. I. <u>5</u>	SEWER TILE <u>5</u>	FLOOR DRAIN C. I. <u>5</u>
		FOUNDATION DRAIN SEWER CONNECTED ☐ INDEPENDENT ☐		WASTE WATER DRAIN C. I. <u>5</u>	
WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN
<u>25</u>	<u>25</u>		<u>50</u>		
		SILO		ABANDONED WELL	
				SINK HOLE	

POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

Well is intended to supply water for:
Private Home

7. WELLHOLE						9. FORMATIONS		
Depth (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
	Surface	<u>50</u>				<u>SAND</u>	Surface	<u>30</u>
						<u>CLAY</u>	<u>30</u>	<u>45</u>
						<u>SAND</u>	<u>45</u>	<u>50</u>
8. CASING, LINER, CURBING, AND SCREEN								
Depth (in.)	Kind and Weight			From (ft.)	To (ft.)			
<u>2</u>	<u>RD GAL. PIPE</u>			Surface	<u>47</u>			
<u>11</u>	<u>NEW STEEL 3 3/4" FT</u>			<u>47</u>	<u>50</u>			
<u>1</u>	<u>CLAY TON MARK 35121</u>							
	<u>Well Screen</u>							

9. ROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED	
Kind	From (ft.) To (ft.)	☐ Cable Tool	☐ Direct Rotary
Surface		☐ Rotary - air w/drilling mud	☐ Reverse Rotary
		☐ Rotary - hammer with drilling mud & air	☐ Jetting with
			☐ Air ☐ Water

11. MISCELLANEOUS DATA		Well construction completed on <u>Sept 29</u> 19 <u>75</u>	
Yield test: <u>2</u> Hrs. at <u>10</u> GPM	Well is terminated <u>10</u> inches ☒ above final grade		
Depth from surface to normal water level <u>20</u> ft.	Well disinfected upon completion ☒ Yes ☐ No		
Depth to water level when pumping <u>20</u> ft.	Well sealed watertight upon completion ☒ Yes ☐ No		

Water sample sent to Madison Sept WIS laboratory on: Sept 30 19 75

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE <u>Jim Phillip</u>		COMPLETE MAIL ADDRESS <u>Brooks, Wis</u>	
Registered Well Driller			
Please do not write in space below			
COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED
			REMARKS

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

COUNTY Adams		CHECK ONE ☒ Town ☐ Village ☐ City		NAME Preston					
LOCATION - 1/4 Section SE		Section 18 Township 18N Range 6E		3. OWNER AT TIME OF DRILLING Paul Pasko					
GRID - Grid or street no.		Street name Hwy 21		ADDRESS Route 3					
AN. - If available subdivision name, lot & block no.				POST OFFICE Friendship Wis					
distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C. I.	SANITARY TILE	SEWER C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	INDEPENDENT	WASTE WATER DRAIN C. I.	TILE
6									
CLEAR WATER DRAIN C. I.	TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
		36			90				
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)									
Well is intended to supply water for: Home									
DRILLHOLE					9. FORMATIONS				
Depth (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
4	Surface	85				Sand	Surface	35	
						clay	35	45	
CASING, LINER, CURBING, AND SCREEN									
Depth (in.)	Kind and Weight		From (ft.)	To (ft.)					
4	New Black Buttweld		Surface	82					
	7+8 WT 11/16								
	ASTM 120								
	Screened		82	85					
3' on SS 15 slot 4"x3'									
ROUT OR OTHER SEALING MATERIAL					10. TYPE OF DRILLING MACHINE USED				
Kind		From (ft.)	To (ft.)	☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary					
		Surface		☐ Rotary - air with drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with Air ☐ Water					
					Well construction completed on 7/16 1980				
MISCELLANEOUS DATA					Well is terminated 12 inches ☒ above final grade ☐ below				
Yield test: 4 Hrs. at 12 GPM					Well disinfected upon completion ☒ Yes ☐ No				
Depth from surface to normal water level 23 ft.					Well sealed watertight upon completion ☒ Yes ☐ No				
Depth to water level when pumping 23 ft.									
Water sample sent to Madison					laboratory on: July 16 1980				
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.									
SIGNATURE Thomas Pasko					COMPLETE MAIL ADDRESS Oxford Wis				
Registered Well Driller									
Please do not write in space below									
UNIFORM TEST RESULT		GAS - 24 HRS.		GAS - 48 HRS.		CONFIRMED		REMARKS	

FEB 24 1971

WELL CONSTRUCTOR'S REPORT

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

COUNTY: Adams CHECK ONE: ☒ Town ☐ Village ☐ City NAME: Preston

LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
SE 1/4 Sec 19 T18N-R6E Lot 38

OWNER AT TIME OF DRILLING: Robert Farber

OWNER'S COMPLETE MAIL ADDRESS: Friendship Wis

Distance in feet from well to nearest:
(Record answer in appropriate block)

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C.I.	C.I.	C.I.	SEWER CONNECTED	C.I.
TILE	TILE	TILE	INDEPENDENT	TILE
<u>5</u>				

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C.I.	C.I.							
TILE								
	<u>4.5</u>			<u>10.5</u>				

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

Well is intended to supply water for: home

7. DRILLHOLE						10. FORMATIONS		
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
<u>2</u>	<u>Surface</u>	<u>51</u>				<u>Sand</u>	<u>Surface</u>	<u>51</u>

8. CASING, LINER, CURBING, AND SCREEN					
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)		
2 in	new STD Galv	Surface	48		
	R4D. WT 348				
	with long				
	Couplings				
Screened		48	51		
Dayton mark SS101					
CGP Part 3000248					

9. GROUT OR OTHER SEALING MATERIAL							
Kind		From (ft.)	To (ft.)				
		<u>Surface</u>					

Well construction completed on Feb 18 1971

11. MISCELLANEOUS DATA

Test: 2 Hrs. at 10 GPM

Well is terminated 10 inches ☒ above ☐ below final grade

Depth from surface to normal water level 3.2 ft. Well disinfected upon completion ☒ Yes ☐ No

Depth to water level when pumping 3.2 ft. Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison Wis laboratory on: Feb 23 1971

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: Budon Ross Registered Well Driller COMPLETE MAIL ADDRESS: Oxford, Wis

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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plot

WELL CONSTRUCTOR'S REPORT

Form 300-15

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

COUNTY Adams		CHECK ONE ☒ Town ☐ Village ☐ City		NAME Freston	
LOCATION - 1/4 Section SE		Section 19		Township 18N	
		Range 6E		3. OWNER AT TIME OF DRILLING Howard Bodett	
Road or street no.		Street name Cumberland Drive		ADDRESS 2008 Webster Lane	
D - If available subdivision name, lot & block no. Wildwood Lot # 33		POST OFFICE Des Plaines Ill 60018			
Distance in feet from well to nearest:		BUILDING 15	SANITARY SEWER C. I. TILE	FLOOR DRAIN C. I. TILE	FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT
(Record answer in appropriate block)					WASTE WATER DRAIN C. I. TILE
WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN
	40			60	
SILO					
ABANDONED WELL					
SINK HOLE					
E. POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)					

Well is intended to supply water for:

Mobile Home

F. WELLHOLE						9. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind		From (ft.)	To (ft.)
	Surface	55				Sand		Surface	58
G. CASING, LINER, CURBING, AND SCREEN									
Dia. (in.)	Kind and Weight		From (ft.)	To (ft.)					
2	New Std Galv T&C		Surface	55					
	WD 3.68								
	Screened		55	58					
	Clayton Mark SS121								
	60 Ga. Part No 80008LB								
H. GROUT OR OTHER SEALING MATERIAL						10. TYPE OF DRILLING MACHINE USED			
Kind			From (ft.)	To (ft.)		☐ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary ☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☒ Jetting with ☐ Air ☒ Water			
			Surface			Well construction completed on 7-31 1972			
I. MISCELLANEOUS DATA						Well is terminated 10 inches ☒ above ☐ below final grade			
Yield test:		2 Hrs. at	10	GPM		Well disinfected upon completion ☒ Yes ☐ No			
Depth from surface to normal water level			20	ft.		Well sealed watertight upon completion ☒ Yes ☐ No			
Depth to water level when pumping			20	ft.					
Water sample sent to Madison						Laboratory on: 7-31 1972			

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE <i>Thomas Phoo</i>	Registered Well Driller	COMPLETE MAIL ADDRESS <i>Adams, Wis</i>
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Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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CONSTRUCTOR'S REPORT

JUL 18 1974

NOTE
WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

COUNTY Adams		CHECK ONE ☒ Town ☐ Village ☐ City		NAME Preston	
LOCATION - 1/4 Section SE		Section 13		Township 18N	
		Range 6E		3. OWNER AT TIME OF DRILLING Steve Repta Jr	
Gr or street no.		Street name Cypress Ave & Hwy 13		ADDRESS R#2	
If available subdivision name, lot & block no.		POST OFFICE Friendship Wi			
Distance in feet from well to nearest:		BUILDING C.I.		SANITARY SEWER TILE	
(Record answer in appropriate block)		4		-	
		FLOOR DRAIN C.I.		FOUNDATION DRAIN	
		-		SEWER CONNECTED	
		-		INDEPENDENT	
		WASTE WATER DRAIN C.I.		TILE	
		-		-	
WATER DRAIN TILE		SEPTIC TANK		PRIVY	
-		-37		-	
		SEEPAGE PIT		ABSORPTION FIELD	
		-		65	
		BARN		SILO	
		-		-	
		ABANDONED WELL		SINK HOLE	
		-		-	
POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)					
Well is intended to supply water for: Home					
8. HOLE				9. FORMATIONS	
From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind
2	Surface	65			Sand
CASING, LINER, CURBING, AND SCREEN					
From (ft.)	To (ft.)	Kind and Weight			
2	Surface	New Std Galv T&C			
		WT 3.68			
		Screened			
		Clayton Mark SS121			
		60 Ga Part 80008LB			
GROUT OR OTHER SEALING MATERIAL				10. TYPE OF DRILLING MACHINE USED	
From (ft.)	To (ft.)	Kind			
		Surface			
				☐ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary ☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☒ Jetting with ☐ Air ☐ Water	
				Well construction completed on 7-8 19 74	
ISCELLANEOUS DATA				Well is terminated 15 inches ☒ above final grade	
2 Hrs. at 10 GPM				☒ Yes ☐ No	
from surface to normal water level 19 ft.				Well disinfected upon completion	
depth to water level when pumping 19 ft.				☒ Yes ☐ No	
sample sent to Madison				laboratory on: 7-17 19 74	
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.					
SIGNATURE				COMPLETE MAIL ADDRESS	
Registered Well Driller				Box 82	
Please do not write in space below					
COLIFORM TEST RESULT		GAS - 24 HRS.		GAS - 48 HRS.	
				CONFIRMED	
				REMARKS	

APR 15 1975

WELL CONSTRUCTOR'S REPORT
FORM 3300-15STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

NOTE

DIVISION'S COPY
- DRILLER'S COPY
- OWNER'S COPY

1. COUNTY Adams		CHECK ONE ☒ Town ☐ Village ☐ City Pruston		NAME	
LOCATION - 1/4 Section 154 Section 19 Township T12N Range R-6E		3. OWNER AT TIME OF DRILLING George Salluck			
OR - Grid or street no.		Street name		ADDRESS	
AND - If available subdivision name, lot & block no.		POST OFFICE Friendship			
Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C. I.	SANITARY SEWER C. I.	FLOOR DRAIN C. I.	FOUNDATION DRAIN SEWER CONNECTED/INDEPENDENT
5					
CLEAR WATER DRAIN C. I.	SEPTIC TANK C. I.	PRIVY	SEEPAGE PIT	ABSORPTION FIELD C. I.	BARN C. I.
	NONE			NONE	
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)					
Well is intended to supply water for: Home					
DRILLHOLE				9. FORMATIONS	
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
2	Surface	45			
7. CASING, LINER, CURBING, AND SCREEN					
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)		
2	40 new gal pipe	Surface	42		
14	large clayton mark	42	45		
GROUT OR OTHER SEALING MATERIAL				10. TYPE OF DRILLING MACHINE USED	
Kind	From (ft.)	To (ft.)			
	Surface				
MISCELLANEOUS DATA			Well construction completed on 8-14 1974		
ald test:	2 Hrs. at	8 GPM	Well is terminated 12 inches ☒ above ☐ below final grade		
Depth from surface to normal water level	27 ft.		Well disinfected upon completion ☒ Yes ☐ No		
Depth to water level when pumping	27 ft.		Well sealed watertight upon completion ☒ Yes ☐ No		
Water sample sent to			laboratory on: 19		
our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.			COMPLETE MAIL ADDRESS		
SIGNATURE Myron P. ...			Registered Well Driller R-2 Calama, Wis		
Please do not write in space below					
COLIFORM TEST RESULT		GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS

WELL CONSTRUCTOR'S REPORT

Well-6

MAY 17 1973

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

COUNTY <u>Adams</u>	CHECK ONE ☒ Town ☐ Village ☐ City	NAME <u>Philetia</u>
2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.) <u>City - Sec 4 Sec. 19 T18 N R6E Lot 30 PARK VIEW ACRES</u>		
OWNER AT TIME OF DRILLING <u>Russell Owens</u>		
OWNER'S COMPLETE MAIL ADDRESS <u>R-2 Friendship Wisc.</u>		
3. Distance in feet from well to nearest: (Record answer in appropriate block)	BUILDING C.I.	SANITARY SEWER C.I.
	FLOOR DRAIN C.I.	FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT
	WASTE WATER DRAIN C.I.	TILE
	4'	
4. NEAR WATER DRAIN C.I.	SEPTIC TANK TILE	PRIVY
	40'	
		SEEPAGE PIT
		ABSORPTION FIELD
		BARN
		SILLO
		ABANDONED WELL
		SINK HOLE
		56'
5. OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)		

6. Well is intended to supply water for:
Mobile Home

7. DRILLHOLE						10. FORMATIONS			
Dis. (in.)	From (ft.)	To (ft.)	Dis. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
2	Surface	50				Sand	Surface	50	
						Clay	30	56	
						Sand	34	50	
8. CASING, LINER, CURBING, AND SCREEN									
Dis. (in.)	Kind and Weight		From (ft.)	To (ft.)					
2"	R-0 NEW GAL. PUMP		Surface	47					
1 1/4"	#121 60 GPM		47	50					
	Clayton Pump Screen								
9. GROUT OR OTHER SEALING MATERIAL									
Kind			From (ft.)	To (ft.)					
			Surface						

11. MISCELLANEOUS DATA			Well construction completed on <u>5-7 1973</u>		
Yield test:	<u>2</u> Hrs. at	<u>10</u> GPM	Well is terminated	<u>10</u> inches	☒ above final grade
Depth from surface to normal water level	<u>50</u> ft.		Well disinfected upon completion	☒ Yes	☐ No
Depth to water level when pumping	<u>50</u> ft.		Well sealed watertight upon completion	☒ Yes	☐ No
Water sample sent to <u>Madison</u>			laboratory on: <u>5-14 1973</u>		

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE <u>Gregory J. Mendenhall</u>	COMPLETE MAIL ADDRESS <u>R-2 Columbia, Wisc.</u>
Registered Well Driller	

Please do not write in space below			
FORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED
			REMARKS

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 2-79

1. COUNTY <u>Adams</u>		CHECK (✓) ONE: ☒ Town ☐ Village ☐ City		Name <u>Preston</u>	
2. LOCATION <u>SW NE</u>		Section <u>19</u> Township <u>18N</u> Range <u>6E</u>		3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Edgar Hintz</u>	
OR - Grid or Street No. _____ Street or Road Name _____		ADDRESS <u>8410 W 76th St</u>		POST OFFICE <u>Milwaukee</u>	
AND - If available subdivision name, lot & block No. _____		ZIP CODE <u>53208</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>5</u>		Sanitary Bldg. Drain C.I. _____ Other _____	
		Sanitary Bldg. Sewer C.I. _____ Other _____		Floor Drain Connected To: C.I. Sewer _____ Other Sewer _____	
		Storm Bldg. Drain C.I. _____ Other _____		Storm Bldg. Sewer C.I. _____ Other _____	
Street Sewer San. _____ Storm _____		Other Sewers C.I. _____ Other _____		Foundation Drain Connected to: Sewer _____ Sewage Sump _____	
		Clearwater Dr. _____ Clearwater Sump _____		Sewage Sump C.I. _____ Other _____	
Privy Pet Waste Pit _____		Pit: Nonconforming Existing _____		Subsurface Pump Room Nonconforming Existing _____	
		Well _____ Pump _____ Tank _____		Barn Gutter _____	
		Animal Barn Pen _____		Animal Yard _____	
		Sho With Pit _____		Glass Lined Storage Facility _____	
		Silo w/o Pit _____		Earthen Silage Storage Trench Or Pit _____	
		Earthen Manure Basin _____		Manure Hopper or Retention or Pneumatic Tank _____	
Temporary Manure Stack or Platform _____		Watertight Liquid Manure Tank or Basin _____		Manure Pressure Pipe _____	
		Subsurface Gasoline or Oil Tank _____		Waste Pond or Land Disposal Unit (Specify Type) _____	
		Manure Storage Basin Concrete Floor Only _____ Concrete Floor and Partial Concrete Walls _____		Other (Describe) _____	
5. Well is intended to supply water for: <u>Home</u>					
6. DRILLHOLE					
Dia. (in.)		From (ft.)		To (ft.)	
6		Surface		6	
		2		59	
7. CASING, LINER, CURBING AND SCREEN					
Dia. (in.)		Mfg. & Method of Assembly		From (ft.) To (ft.)	
2		RTP Threaded & Coupled		Surface 56	
		1/4 x 36" 60ga Screen		56 59	
8. GROUT OR OTHER SEALING MATERIAL					
Kind		From (ft.)		To (ft.)	
Clay		Surface		6	
9. FORMATIONS					
Kind		From (ft.)		To (ft.)	
Sand		Surface		25	
Fine Sand		25		34	
Clay		34		42	
Clay Loam & Fine Sand		42		50	
Medium to Coarse Sand		50		59	
10. TYPE OF DRILLING MACHINE USED					
☐ Cable Tool		☐ Rotary-hammer w/drilling mud & air		☒ Jetting with	
☐ Rotary-air w/drilling mud		☐ Rotary-hammer & air		☐ Air	
☐ Rotary-w/drilling mud		☐ Reverse Rotary		☒ Water	
Well construction completed on <u>11-?-77</u> 19__					
11. MISCELLANEOUS DATA					
Yield Test: <u>1</u>		Hrs. at <u>9</u>		GPM	
Depth from surface to normal water level <u>17</u>		Ft.		Well is terminated <u>12</u> inches ☒ above final grade ☐ below	
Depth of water level when pumping <u>17</u>		Ft.		Well disinfected upon completion ☒ Yes ☐ No	
Stabilized ☒ Yes ☐ No		Well sealed watertight upon completion ☒ Yes ☐ No			
Water sample sent to <u>State</u> laboratory on <u>8-9-83</u> 19__					

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature David S. Foster Business Name and Complete Mailing Address Foster Enterprises
Box 897 Itasca Itasca, MN 55120

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

17

1. COUNTY <u>Adams</u>		CHECK (✓) ONE: ☒ Town ☐ Village ☐ City		Name <u>Preston</u>	
LOCATION <u>SW</u> <u>19</u> <u>18N</u> <u>6E</u>		3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Walter Portela</u>		ADDRESS <u>1698 13th Lane</u>	
OR - Grid or Street No. <u>13th Lane</u>		POST OFFICE <u>Friendship, Mo. 653934</u>			
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>10</u>		Sanitary Bldg. Drain C.I. Other	
		Sanitary Bldg. Sewer C.I. Other		Flood Drain Connected To: C.I. Sewer Other Sewer	
		Storm Bldg. Drain C.I. Other		Storm Bldg. Sewer C.I. Other	
Street Sewer		Other Sewers		Foundation Drain Connected to: Sewage Sump	
San. Storm C.I. Other		Sewer Clearwater Dr. Sewage Sump Clearwater Sump		Clearwater Sump Septic Tank Holding Tank	
				Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench	
Privy		Pet Waste Pit		Pit: Nonconforming Existing Well Pump Tank	
		Subsurface Pumproom Nonconforming Existing		Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)	
		Other (Give Description)			
Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.) To (ft.)	
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Surf</u>		Surface <u>50</u>	
<u>6</u> Surface <u>109</u>		<u>fine sand & clay</u>		<u>50</u> <u>75</u>	
		<u>Coarse sand</u>		<u>75</u> <u>109</u>	
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.) To (ft.)			
Dia. (in.)					
<u>6</u> new pipe 2 1/2" #5TM #53		Surface <u>106</u>			
<u>6</u> Johnson screen 25 slot		<u>106</u> <u>109</u>			
GROUT OR OTHER SEALING MATERIAL					
Kind		From (ft.) To (ft.)			
		Surface			
11. MISCELLANEOUS DATA		10. TYPE OF DRILLING MACHINE USED			
Yield Test: <u>2</u> Hrs. at <u>20</u> GPM		☐ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with			
Depth from surface to normal water level <u>29</u> Ft.		☐ Rotary-air w/drilling mud ☒ Rotary-hammer & air ☐ Air			
Depth of water level when pumping <u>40</u> Ft. Stabilized ☒ Yes ☐ No		☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water			
Well construction completed on <u>11-3</u> 19 <u>77</u>					
Well is terminated <u>2</u> inches ☒ above final grade ☐ below					
Well disinfected upon completion ☒ Yes ☐ No					
Well sealed watertight upon completion ☒ Yes ☐ No					
Water sample sent to <u>S. L. H.</u> laboratory on <u>1-9-</u> 19 <u>78</u>					
Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Marvin Hogan</u> Registered Well Driller		Complete Mail Address <u>R#4 W. Belle Mead, 53965</u>			

White Copy — Division's Copy
Green Copy — Driller's Copy
Yellow Copy — Owner's Copy

COUNTY Adams		CHECK (✓) ONE: ☒ Town ☐ Village ☐ City		Name Preston	
LOCATION SW 19 18N 6E		3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE		George Boland	
OR - Grid or Street No. _____ Street Name _____		ADDRESS _____		POST OFFICE Madison Wis.	
AND - If available subdivision name, lot & block No. _____					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building None		Sanitary Bldg. Drain C.I. _____ Other _____	
		Sanitary Bldg. Sewer C.I. _____ Other _____		Floor Drain Connected To: C.I. Sewer _____ Other Sewer _____	
		Storm Bldg. Drain C.I. _____ Other _____		Storm Bldg. Sewer C.I. _____ Other _____	
Street Sewer _____ Other Sewers C.I. _____ Other _____		Foundation Drain Connected to: Sewer _____ Sewage Sump _____ Clearwater Dr. _____		Sewage Sump C.I. _____ Other _____	
		Clearwater Sump _____		Septic Tank _____ Holding Tank _____	
		Sewage Absorption Unit: Seepage Pit _____ Seepage Bed _____ Seepage Trench None			
Pet Waste Pit _____		Pit: Nonconforming Existing _____ Well _____ Pump _____ Tank _____		Subsurface Pumproom _____ Barn Gutter _____	
		Nonconforming Existing _____		Animal Barn Pen _____ Animal Yard _____ Silo With Pitt _____	
Temporary Manure Stack _____		Watertight Liquid Manure Tank _____ Solid Manure Storage Structure _____		Subsurface Gasoline or Oil Tank _____ Waste Pond or Land Disposal Unit (Specify Type) _____	
		Other (Give Description) _____			
Well is intended to supply water for: Mobile Home		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.)	To (ft.)
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
2	Surface	4 1/5	SAND	Surface	21
			SAND CLAY	21	30
			SAND	30	45
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.)		To (ft.)	
Youngs Town New Steel 3.5" x 1/4" Row ASTM-53 coupled Johnson well point #25		Surface		42	
		42		4 1/5	
8. GROUT OR OTHER SEALING MATERIAL					
Kind		From (ft.)		To (ft.)	
		Surface			
11. MISCELLANEOUS DATA		10. TYPE OF DRILLING MACHINE USED			
Yield Test: 2 Hrs. at 10 GPM		☒ Cable Tool		☐ Rotary-hammer w/drilling mud & air	
Depth from surface to normal water level 25 Ft.		☐ Rotary-air w/drilling mud		☐ Rotary-hammer & air	
Depth of water level when pumping 25 Ft. Stabilized ☒ Yes ☐ No		☐ Rotary-w/drilling mud		☐ Reverse Rotary	
Water sample sent to Madison, Wis. laboratory on June 14 19 78		Well construction completed on June 5 19 78		☒ above final grade ☐ below	
Well is terminated 12 inches		Well disinfected upon completion ☒ Yes ☐ No		Well sealed watertight upon completion ☒ Yes ☐ No	
our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of fishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature Jim Phillips Registered Well Driller		Complete Mail Address P.O. Box 52 Madison, Wis.			

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 2-79

AUG 22 1984

1. COUNTY <u>Adams</u>		CHECK (✓) ONE: ☒ Town ☐ Village ☐ City		Name <u>Strong's Prairie</u>	
2. LOCATION Section or Gov't. Lot <u>SW</u> Section <u>24</u> Township <u>18N</u> Range <u>5E</u>		3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Rita Dolata</u>			
DR - Grid or Street No. _____ Street or Road Name _____		ADDRESS <u>Adams, Wis</u>			
AND - If available subdivision name, lot & block No. _____		POST OFFICE _____ ZIP CODE _____			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>4</u>		Sanitary Bldg. Drain C.I. _____ Other _____	
		Sanitary Bldg. Sewer C.I. _____ Other _____		Floor Drain Connected To: C.I. Sewer _____ Other Sewer _____	
		Storm Bldg. Drain C.I. _____ Other _____		Storm Bldg. Sewer C.I. _____ Other _____	
Street Sewer _____ Other Sewers _____		Foundation Drain Connected to: Sewage Sump _____ Clearwater Dr. _____		Sewage Sump C.I. _____ Other _____	
San. _____ Storm _____ C.I. _____ Other _____		Sewage Sump _____ Clearwater Dr. _____		Septic Tank _____ Holding Tank _____	
Sewage Sump _____ Clearwater Dr. _____		Septic Tank _____ Holding Tank _____		Sewage Absorption Unit: Seepage Pit _____ Seepage Bed <u>56</u> _____ Seepage Trench _____	
Manure Hopper or Retention or Pneumatic Tank _____		Manure Hopper or Retention or Pneumatic Tank _____		Manure Hopper or Retention or Pneumatic Tank _____	
Pet Waste Pit _____		Pit: Nonconforming Existing _____		Subsurface Pump Room _____	
Well _____ Pump _____ Tank _____		Nonconforming Existing _____		Barn Gutter _____ Animal Barn Pen _____	
Animal Yard _____		Animal Silo With Pit _____		Glass Lined Storage Facility _____ Silo w/o Pit _____	
Earthen Silage Storage Trench Or Pit _____		Earthen Storage Trench _____		Manure Basin _____	
Temporary Manure Stack or Platform _____		Watertight Liquid Manure Tank or Basin _____		Manure Pressure Pipe _____	
Subsurface Gasoline or Oil Tank _____		Waste Pond or Land Disposal Unit (Specify Type) _____		Manure Storage Basin _____ Concrete Floor Only _____ Concrete Floor and Partial Concrete Walls _____	
Other (Describe) _____		Other (Describe) _____		Other (Describe) _____	
5. Well is intended to supply water for: <u>Mobile home</u>		9. FORMATIONS			
		Kind		From (ft.)	To (ft.)
		<u>sand</u>		Surface	<u>26</u>
		<u>sand gravel</u>		<u>26</u>	<u>45</u>
c. DRILLHOLE					
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>2</u>	Surface	<u>45</u>			
CASING, LINER, CURBING AND SCREEN					
Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)		
<u>2</u>	<u>Sawhill Newsteel</u>	Surface	<u>42</u>		
<u>1 1/2</u>	<u>Johnson well point</u>	<u>42</u>	<u>45</u>		
8. GROUT OR OTHER SEALING MATERIAL					
Kind	From (ft.)	To (ft.)			
Surface					
10. TYPE OF DRILLING MACHINE USED					
☒ Cable Tool		☐ Rotary-hammer w/drilling mud & air		☒ Jetting with	
☐ Rotary-air w/drilling mud		☐ Rotary-hammer & air		☐ Air	
☐ Rotary-w/drilling mud		☐ Reverse Rotary		☒ Water	
Well construction completed on <u>Aug 9 1984</u>					
Yield Test: <u>2</u> Hrs. at <u>12</u> GPM		Well is terminated <u>12</u> inches		☒ above final grade ☐ below	
Depth from surface to normal water level <u>15</u> Ft.		Well disinfected upon completion		☒ Yes ☐ No	
Depth of water level when pumping <u>15</u> Ft. Stabilized ☒ Yes ☐ No		Well sealed watertight upon completion		☒ Yes ☐ No	
Water sample sent to <u>Madison</u> laboratory on <u>Aug 19 84</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>[Signature]</u>		Business Name and Complete Mailing Address <u>[Address]</u>			