START

0017[illegible]

TEST REQUEST FORM

Sample/Specimen No. 9-072 Cost Code/Work Order No. ED332

Requested By: Org. 80232 Person J. LINDBERG Date 12-7-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
SIEVE ANALYSIS	1	ETAL-07
HYDROMETER	1	ETAL-07 (IF REQ)
N/A	N/A	N/A
N/A	N/A	N/A

Remarks FIELD SAMPLE MW-10-1

Received By: R.G ALEXANDER Date 11-28-89

Approved By: R.G ALEXANDER Date 12-7-89

DEC 1991 RECEIVED EDMC

9 2 1 2 1 1 0 1 7 4

SIEVE ANALYSIS DATA SHEET

Sample ID 9-072 Page 1 of 1

Tested By R.G ALEXANDER Date 12-7-89

Procedure ETAL-07 Rev Ø Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	12-28-89
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by ☒ splitting ☒ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	3505.67	Ø	Ø	Ø	100	100
	1½		71.19	2.0	2.0	98.0	98.0
	1		237.67	6.8	6.8	93.2	93.2
	3/4		314.29	9.0	9.0	91.0	91.0
	1/2		452.92	12.9	12.9	87.1	87.1
	3/8		556.93	15.9	15.9	84.1	84.1
	#4		671.15	19.1	19.1	80.9	80.9
	#10	3605.67	767.58	21.9	21.9	78.1	78.1
	#40	185.17	32.19	17.4	17.4	82.6	64.5
	#60		130.69	70.6	70.6	29.4	23.0
	#100		158.99	85.9	85.9	14.1	11.0
	#200		169.16	91.4	91.4	8.6	6.7

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve N/A %

D=Original Dry Weight of Sample N/A g

E=Dry Weight of Sample After Drying N/A g

C = <(D-E)/D> X 100

Remarks
WASH FINE GRADING
UNDER SIZE FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

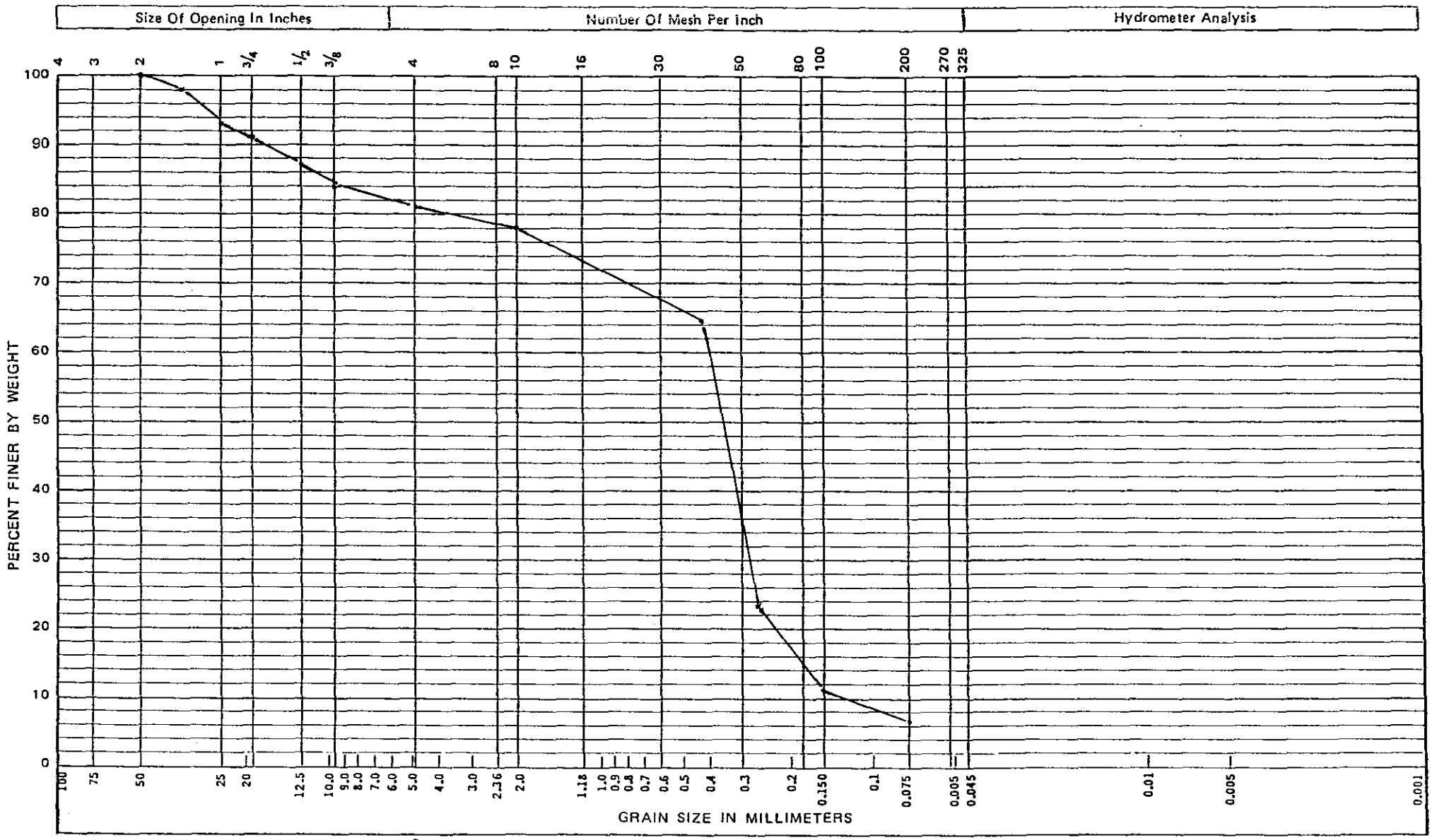
Checked By J F Relyea Date 12 Dec 89

A-5400-204(2-87)

9212110175

9 2 1 2 1 1 0 7 6

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-072 Procedure No. ETAL-07 Rev. Ø Date Issued 11-15-89

Sample Description: SANDY GRAVEL MW-10-1	Plotted by: R G ALEXANDER Date: 12-8-89	Checked by: J J Rilyea Date: 12 Dec 89

BD-6400-136 (9-85)

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
9-072	4170.18	4083.73	578.06	3592.12	3505.67	2.47

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 12-8-89

9 2 1 2 1 1 0 1 7 7

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JW Lindberg Telephone 6-5005

Sample Collected by: Thomas/Weekes/Lindberg Date: 11/6/89-11/14/89 Time: N/A

Sample Locations: MW-10 CERCLA 1100-EM-1

Ice Chest No.: N/A Field Logbook & Page No.: WHC-N-306-2 ~~pages~~ 8-13

Remarks: Silt sample collected by drive barrel & labelled MW-10-6 may be sent to core & sample storage area in 2101-M Bldg. Sample MW-10-5 already sent in to Jerry Alexander for Quick-Turn-Around sieve analysis.

Bill of Lading No.: N/A Off Site Property No.: N/A

Method of Shipment: Hand carry

Shipped to: Jerry Alexander, 2101-M Bldg, Physical Testing Lab

Sample Identification

MW-10-1 plastic bags
MW-10-2 plastic bags
MW-10-3 plastic bags
MW-10-4 plastic bags
~~MW-10-5 plastic bags~~ JW Lindberg 11/14/89
MW-10-6 Split spoon-lexan tube

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg	R.G. Alexander	11/28/89 3:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

FVR\071889-B

9212110178

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector Weekes/Lindberg Date Sampled 10-30-89 and 11-6 to 11/7 1989 Time Variable hours

Affiliation of Sampler WHC

Address _____
number street city state zip

Telephone ( ) 6-5005 Company Contact JW Lindberg

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**
	MW-8-2	Plastic Bag	Sieve/Hydrometer Anal
	MW-8-3	" "	Sieve/Hydrometer Anal
	MW-10-1	" "	Sieve/Hydrom. Anal
	MW-10-2	" "	Sieve/Hydrom and moisture

Analysis Requested see Field Information** above right

Special Handling and/or Storage _____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 9-19. Example of hazardous waste sample analysis sheet.

Revision 0
Date September 1986

9 2 1 1 0 7 9

RADIATION RELEASE

Bldg. Drilling MW 6 Site Date 11-21-89

Released By C. D. Fulwyler
Operational Health Physics

Remarks ← Detectable sample #
mw-6-5 MW-6-5

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By [illegible]
Operational Health Physics

Remarks MW-10-2
sieve & moisture anal.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-27-89

Released By [illegible]
Operational Health Physics

Remarks MW-8-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By [illegible]
Operational Health Physics

Remarks MW-10-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapid Date 10-30-89

Released By [illegible]
Operational Health Physics

Remarks MW-8-2

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By [illegible]
Operational Health Physics

Remarks MW-10-4
41.5'-42'

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-30-89

Released By [illegible]
Operational Health Physics

Remarks MW-8-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-7 Date 12-11-89

Released By [illegible]
Operational Health Physics

Remarks

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-6-89

Released By [illegible]
Operational Health Physics

Remarks [redacted] 9.5 ft to 10.5 ft
MW-10-1

54-3000-022 (09/88)

9 2 1 2 1 1 0 1 3 0

TEST REQUEST FORM

Sample/Specimen No. 9-073 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 12-7-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
MOISTURE	1	ETAL-14
SIEVE ANALYSIS	1	ETAL-07
HYDROMETER	1	ETAL-07 (IF REQ)
N/A	N/A	N/A

Remarks FIELD SAMPLE MW-10-2

Received By: R.G ALEXANDER Date 11-28-89

Approved By: R.G ALEXANDER Date 12-7-89

9 2 1 2 1 1 0 1 3 1

SIEVE ANALYSIS DATA SHEET

Sample ID 9-073 Page 1 of 1

Tested By R.G ALEXANDER Date 12-7-89

Procedure ETAL-07 Rev Ø Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	12-28-89
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by ☒ splitting ☒ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	4155.08	Ø	Ø	Ø	100	100
	1½		155.11	3.7	3.7	96.3	96.3
	1		335.40	8.1	8.1	91.9	91.9
	¾		579.83	14.0	14.0	86.0	86.0
	½		1135.70	27.3	27.3	72.7	72.7
	⅜		1510.59	36.4	36.4	~~63.4~~ 63.6 RGA	~~63.4~~ 63.6 RGA 12-11-89
	#4		2190.55	52.7	52.7	47.3	47.3
	#10	4155.08	2676.80	64.4	64.4	35.6	35.6
	#40	103.93	40.00	38.5	38.5	61.5	21.9
	#60		54.72	52.7	52.7	47.3	16.9
	#100		64.78	62.3	62.3	37.7	13.4
	#200		74.95	72.1	72.1	27.9	9.9

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve N/A %

D=Original Dry Weight of Sample N/A g

E=Dry Weight of Sample After Drying N/A g

C = <(D-E)/D> X 100

Remarks
WASH FINE GRADING
UNDER-SIZE FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

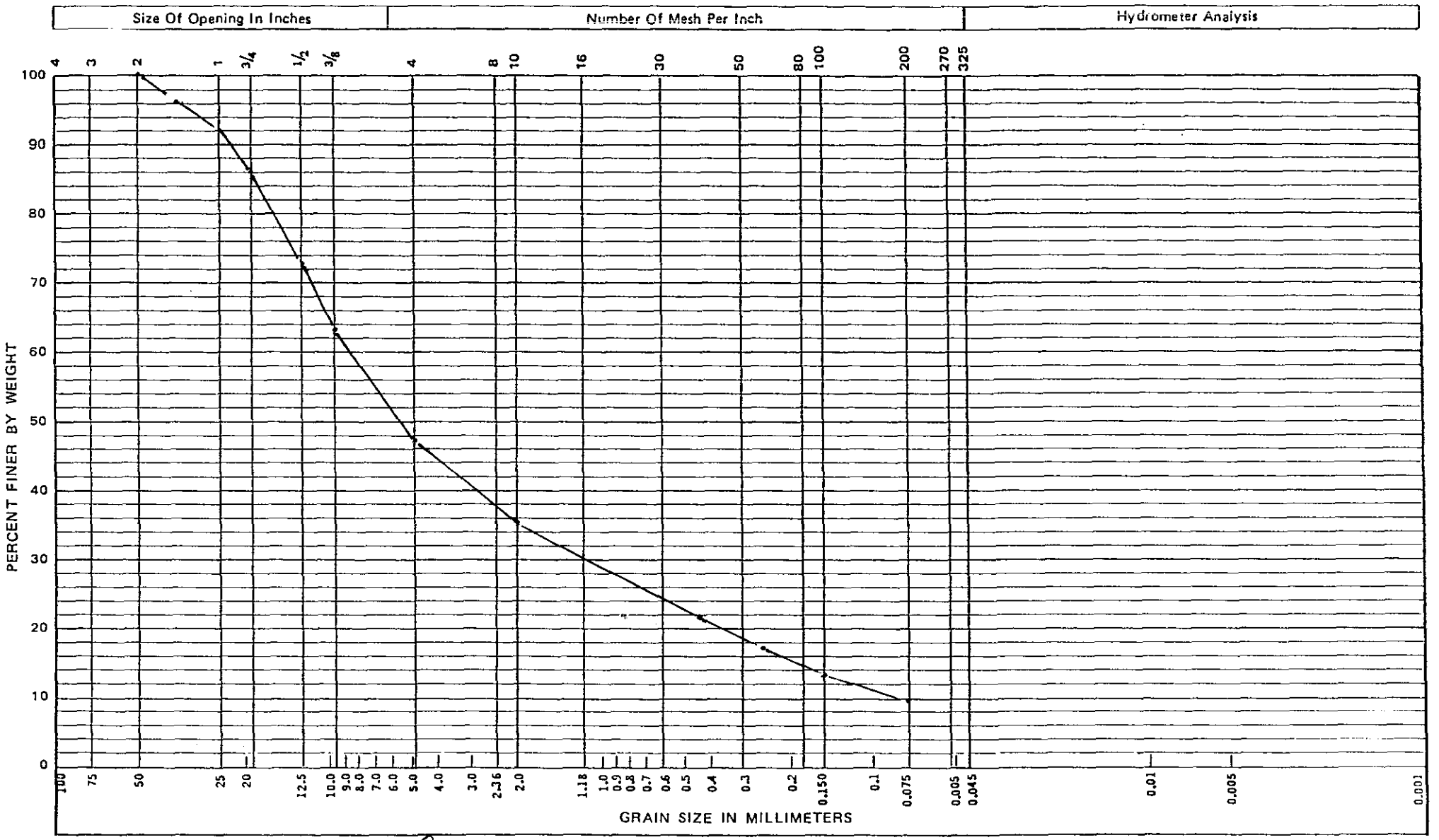
Checked By J F Relyea Date 12 Dec 89

A-6400-204(2-87)

9212110132

9 2 1 2 1 1 0 4 3 3

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-073 Procedure No. ETAL-07 Rev. Ø Date Issued 11-15-89

Sample Description:	Plotted by:	Checked by:
SANDY GRAVEL MW-10-2	R.G. ALEXANDER	J.J. Relyea
	Date: 12-8-89	Date: 12-Dec 89

BD-6400-136 (9-85)

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
9-073	4821.80	4744.47	589.39	4232.41	4155.08	1.86

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 12-8-89

9 2 1 2 1 1 0 3 4

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JW Lindberg Telephone 6-5005

Sample Collected by: Thomas/Weekes/Lindberg Date: 11/6/89-11/14/89 Time: N/A

Sample Locations: MW-10 CERCLA 1100-EM-1

Ice Chest No.: N/A Field Logbook & Page No.: WHC-N-306-2 ~~pages~~ 8-13

Remarks: Silt sample collected by drive barrel & labelled MW-10-6 may be sent to core & sample storage area in 2101-M Bldg. Sample MW-10-5 already sent in to Jerry Alexander for Quick-Turn-Around sieve analysis.

Bill of Lading No.: N/A Off Site Property No.: N/A

Method of Shipment: Hand carry

Shipped to: Jerry Alexander, 2101-M Bldg, Physical Testing Lab

Sample Identification

MW-10-1	plastic bags
MW-10-2	plastic bags
MW-10-3	plastic bags
MW-10-4	plastic bags
~~MW-10-5~~	~~plastic bags~~
MW-10-6	Split spoon-lexan tube

JW Lindberg 11/14/89 JW Lindberg

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg	R.G Alexander	11/28/89 3:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

FVR\071889-B

9212110185

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector Weekes/Lindberg Date Sampled 10-30-89 and 11-6 to 11/7 1989 Time Varied hours

Affiliation of Sampler WHC

Address _____
number street city state zip

Telephone ( ) 6-5005 Company Contact JW Lindberg

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**
	MW-8-2	Plastic Bag	Sieve/Hydrometer Anal
	MW-8-3	" "	Sieve/Hydrometer Anal
	MW-10-1	" "	Sieve/Hydrom. Anal
	MW-10-2	" "	Sieve/Hydrom and moisture

Analysis Requested see Field Information** above right

Special Handling and/or Storage _____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 9-19. Example of hazardous waste sample analysis sheet.

Revision 0
Date September 1986

9 2 1 1 0 1 9 6

RADIATION RELEASE

Bldg. Drilling mw 6 site Date 11-21-89

Released By C. D. Fulwyler
Operational Health Physics

Remarks ← Detectable sample #
mw-6-5 MW-6-5

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By
Operational Health Physics

Remarks MW-10-2
sieve & moisture anal.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-27-89

Released By
Operational Health Physics

Remarks MW-8-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By
Operational Health Physics

Remarks MW-10-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapid Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-2

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By
Operational Health Physics

Remarks MW-10-4
41.5'-42'

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-7 Date 12-11-89

Released By
Operational Health Physics

Remarks

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-6-89

Released By
Operational Health Physics

Remarks [redacted] 9.5 ft to 10.5 ft
MW-10-1

54-3000-022 (09/88)

9 2 1 2 1 1 0 1 3 7

TEST REQUEST FORM

Sample/Specimen No. 9-074 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 12-7-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
MOISTURE	1	ETAL-14
SIEVE ANALYSIS	1	ETAL-07
HYDROMETER	1	ETAL-07 (IF REQ)
N/A	N/A	N/A

Remarks FIELD SAMPLE MW-10-3

Received By: RG ALEXANDER Date 11-28-89

Approved By: R.G ALEXANDER Date 12-7-89

9 2 1 2 1 0 1 3 3

SIEVE ANALYSIS DATA SHEET

Sample ID 9-074 Page 1 of 1

Tested By R.G ALEXANDER Date 12-7-89

Procedure ETAL-07 Rev Ø Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	12-28-89
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by ☒ splitting ☒ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	4163.57	Ø	Ø	Ø	100	100
	1½		147.87	3.6	3.6	96.4	96.4
	1		783.61	18.8	18.8	81.2	81.2
	3/4		1124.10	27.0	27.0	73.0	73.0
	1/2		1537.83	36.9	36.9	63.1	63.1
	3/8		1788.39	43.0	43.0	57.0	57.0
	#4		2280.46	54.8	54.8	45.2	45.2
	#10	4163.57	2803.54	67.3	67.3	32.7	32.7
	#40	142.26	72.71	51.1	51.1	48.9	16.0
	#60		90.12	63.3	63.3	36.7	12.0
	#100		102.11	71.8	71.8	28.2	9.2
	#200		113.55	79.8	79.8	20.2	6.6

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve N/A %

D=Original Dry Weight of Sample N/A g

E=Dry Weight of Sample After Drying N/A g

C = <(D-E)/D> X 100

Remarks

WASH FINE GRADING UNDER SIZE FIELD SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

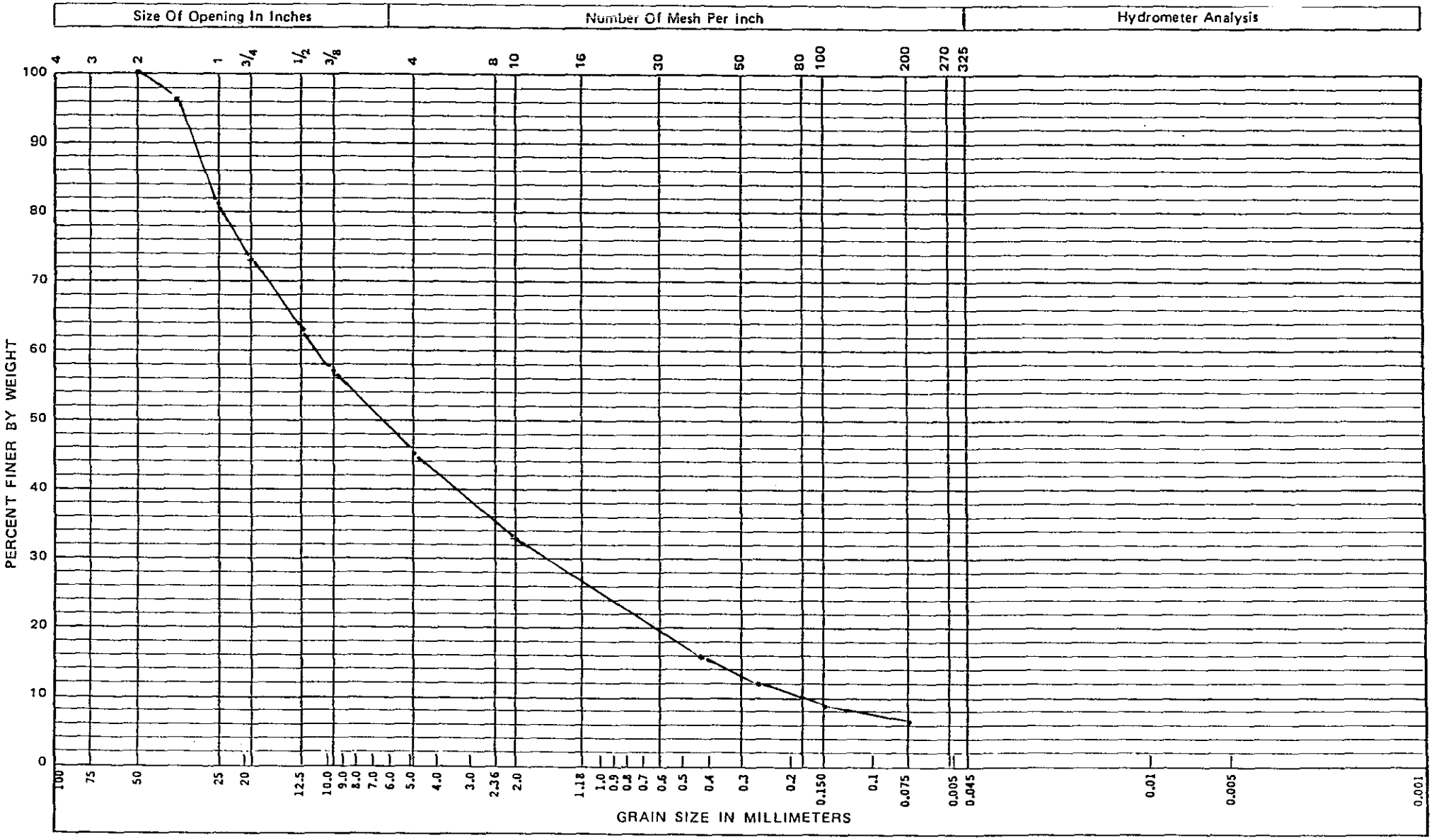
Checked By J F Relyea Date 12 Dec 89

A-6400-204(2-87)

9 2 1 2 1 1 0 4 8 9

9 2 1 2 1 1 0 4 9 0

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-074 Procedure No. ETAL-07 Rev. Ø Date Issued 11-15-89

Sample Description: SANDY GRAVEL MW-10-3	Plotted by: R.G ALEXANDER Date: 12-8-89	Checked by: J F Relyea Date: 12 Dec 89

BD-6400-136 (9-85)

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
9-074	4842.29	4748.29	584.72	4257.57	4163.57	2.26

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 12-8-89

9212110091

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JW Lindberg Telephone 6-5005

Sample Collected by: Thomas/Weekes/Lindberg Date: 11/6/89-11/14/89 Time: N/A

Sample Locations: MW-10 CERCLA 1100-EM-1

Ice Chest No.: N/A Field Logbook & Page No.: WHC-N-306-2 ~~pages~~ 8-13

Remarks: Silt sample collected by drive barrel & labelled MW-10-6 may be sent to core & sample storage area in 2101-M Bldg. Sample MW-10-5 already sent in to Jerry Alexander for Quick-Turn-Around sieve analysis.

Bill of Lading No.: N/A Off Site Property No.: N/A

Method of Shipment: Hand carry

Shipped to: Jerry Alexander, 2101-M Bldg, Physical Testing Lab

Sample Identification

MW-10-1 plastic bags
MW-10-2 plastic bags
MW-10-3 plastic bags
MW-10-4 plastic bags
~~MW-10-5 plastic bags~~ JW Lindberg 11/14/89 JW Lindberg
MW-10-6 Split spoon-lexan tube

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg	R.G. Alexander	11/28/89 3:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

FVR\071889-B

9212110192

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector Weekes Date Sampled 11/7-11/14 1989 Time Variable hours

Affiliation of Sampler WHC

Address _____
number street city state zip

Telephone ( ) _____ Company Contact _____

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**
	MW-10-3	Plastic Bag	Sieve/Hydrom and Moisture
	MW-10-4	" "	Sieve/Hydrom
	MW-10-6	lexan tube	Permeability (cohesive)

Analysis Requested see field information** above right

Special Handling and/or Storage _____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 9-19. Example of hazardous waste sample analysis sheet.

Revision 0
Date September 1986

9 2 1 2 1 0 9 3

RADIATION RELEASE

Bldg. Drilling mw 6 site Date 11-21-89

Released By C. D. Fulwyler
Operational Health Physics

Remarks < Detectable sample #
mw-6-5 MW-6-5

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By [signature]
Operational Health Physics

Remarks MW-10-2
Sieve & moisture anal.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-23-89

Released By [signature]
Operational Health Physics

Remarks MW-8-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By [signature]
Operational Health Physics

Remarks MW-10-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapid Date 10-30-89

Released By [signature]
Operational Health Physics

Remarks MW-8-2

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By [signature]
Operational Health Physics

Remarks MW-10-4
41.5'-42'

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-30-89

Released By [signature]
Operational Health Physics

Remarks MW-8-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-7 Date 12-11-89

Released By [signature]
Operational Health Physics

Remarks

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-6-89

Released By [signature]
Operational Health Physics

Remarks [redacted] 9.5 ft to 10.5 ft
MW-10-1

54-3000-022 (09/88)

9212110.94

TEST REQUEST FORM

Sample/Specimen No. 9-075 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 12-7-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
SIEVE ANALYSIS	1	ETAL-07
HYDROMETER	1	ETAL-07 (IF REQ)
N/A	N/A	N/A
N/A	N/A	N/A

Remarks FIELD SAMPLE MW-10-4

Received By: RG ALEXANDER Date 11-28-89

Approved By: RG ALEXANDER Date 12-7-89

9 2 1 2 1 1 3 0 9 5

SIEVE ANALYSIS DATA SHEET

Sample ID 9-075 Page 1 of 1

Tested By RG ALEXANDER Date 12-7-89

Procedure ETAL-07 Rev Ø Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	12-28-89
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by ☒ splitting ☒ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	4544.62	250.43	5.5	5.5	94.5	94.5
	1 1/2		648.81	14.3	14.3	85.7	85.7
	1		1128.51	24.8	24.8	75.2	75.2
	3/4		1569.84	34.5	34.5	65.5	65.5
	1/2		2081.32	45.8	45.8	54.2	54.2
	3/8		2325.80	51.2	51.2	48.8	48.8
	#4		2823.59	62.1	62.1	37.9	37.9
	#10	4544.62	3193.11	70.3	70.3	29.7	29.7
	#40	181.68	35.20	19.4	19.4	80.6	23.9
	#60		80.47	44.3	44.3	55.7	16.5
	#100		121.38	66.8	66.8	33.2	9.9
	#200		141.92	78.1	78.1	21.9	6.5

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve N/A %

D=Original Dry Weight of Sample N/A g

E=Dry Weight of Sample After Drying N/A g

C = <(D-E)/D> X 100

Remarks

WASH FINE GRADING

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

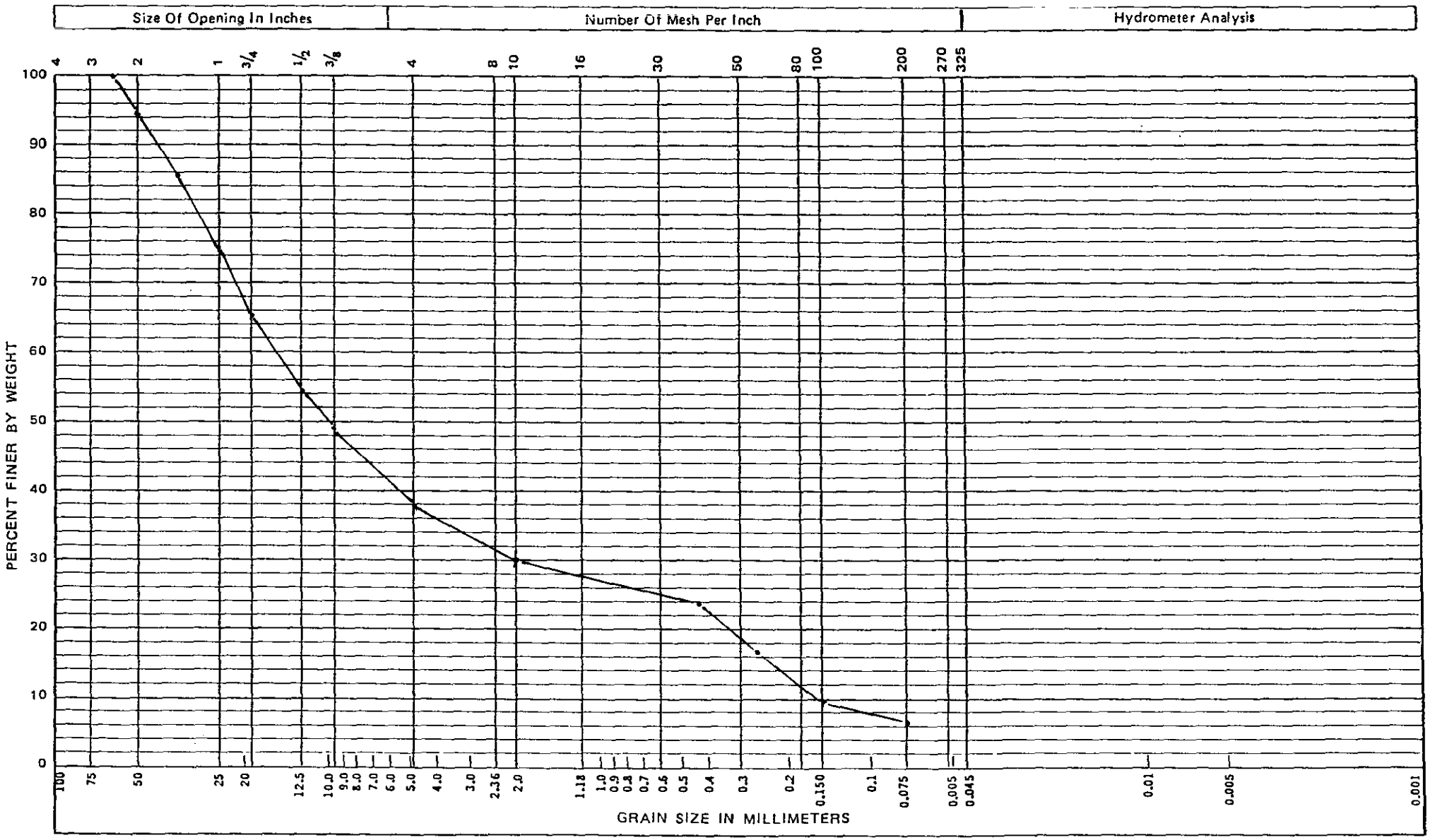
Checked By J F Relyea Date 12 Dec 89

A-6400-204(2-87)

9 2 1 2 1 1 0 9 5

9 2 1 2 1 1 0 1 9 7

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-675 Procedure No. ETAL-07 Rev. Ø Date Issued 11-15-89

Sample Description: SANDY GRAVEL MW-10-4	Plotted by: R.G ALEXANDER Date: 12-8-89	Checked by: J F Relyea Date: 12-Dec 89

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
9-075	5367.80	5133.10	588.48	4779.32	4544.62	5.16

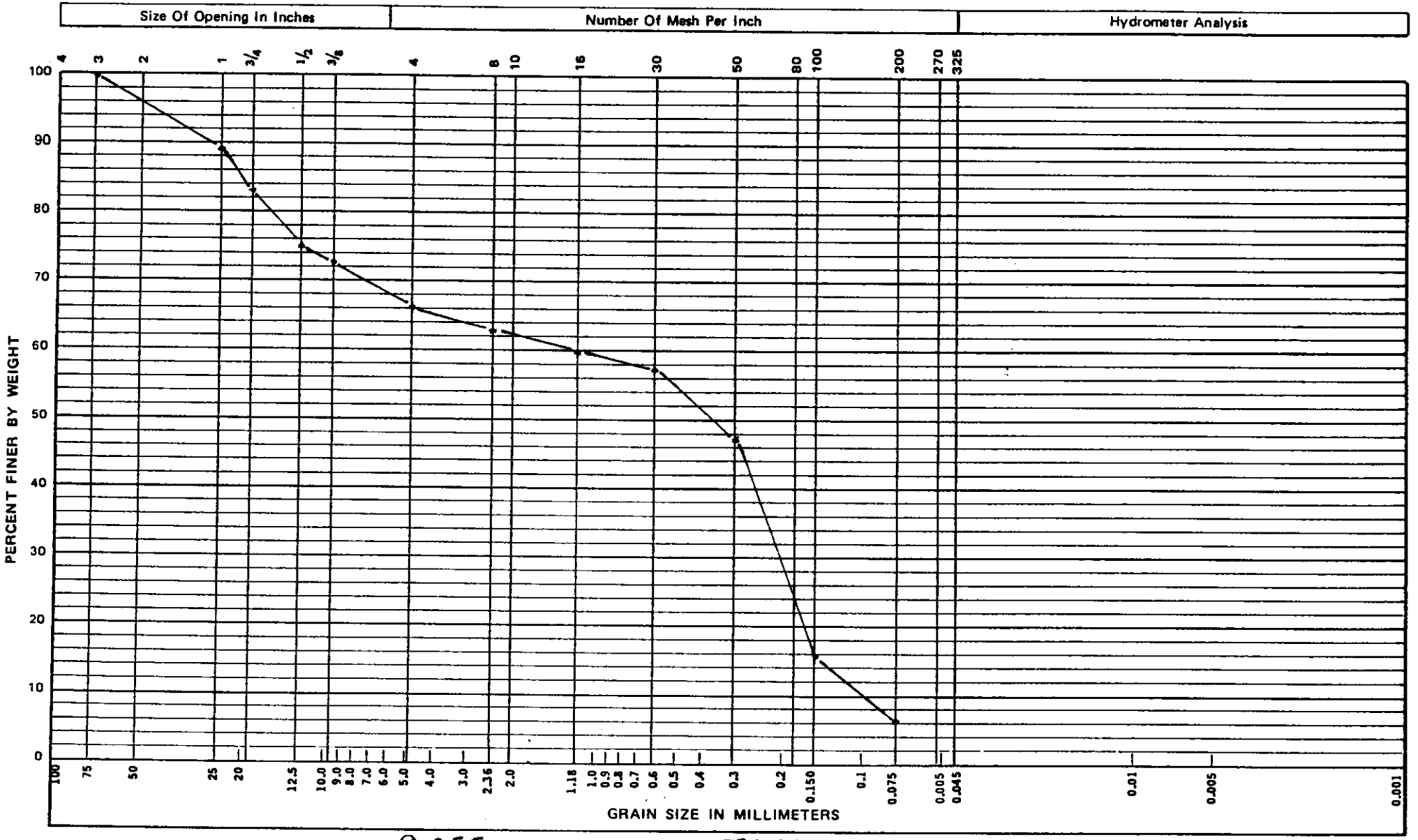
ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G ALEXANDER DATE 12-8-89

9 2 1 2 1 1 0 0 9 3

9 2 1 2 1 0 0 4

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-055 Procedure No. LDE-EEG-67 ETAL-67 Rev. Ø Date Issued 7-10-89

Sample Description:	Plotted by: R.G ALEXANDER	Checked by: J A Relyea
MW-10-5 SANDY GRAVEL	Date: 11-14-89	Date: 11+14-89

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector Weekes Date Sampled 11/7-11/14 1989 Time Variable hours

Affiliation of Sampler WHC

Address _____
number street city state zip

Telephone ( ) _____ Company Contact _____

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**
	MW-10-3	Plastic Bag	Sieve/Hydrom and Moisture
	MW-10-4	" "	Sieve/Hydrom
	MW-10-6	lexan tube	Permeability (cohesive)

Analysis Requested see field information** above right

Special Handling and/or Storage _____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 9-19. Example of hazardous waste sample analysis sheet.

RADIATION RELEASE

Bldg. Drilling mw 6 site Date 11-21-89

Released By C. D. Fulwyler
Operational Health Physics

Remarks ← Detectable sample #
mw-6-5 MW-6-5

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89.

Released By
Operational Health Physics

Remarks MW-10-2
Sieve & moisture anal.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-23-89

Released By
Operational Health Physics

Remarks MW-8-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By
Operational Health Physics

Remarks MW-10-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapid Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-2

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By
Operational Health Physics

Remarks MW-10-4
41.5'-42'

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-7 Date 12-11-89

Released By
Operational Health Physics

Remarks

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-6-89

Released By
Operational Health Physics

Remarks [redacted] 9.5 ft to 10.5 ft
MW-10-1

54-3000-022 (09/88)

9212110001

TEST REQUEST FORM

Sample/Specimen No. 9-055 Cost Code/Work Order No. N/A

Requested By: Org. 80232 Person J. LINDBERG Date 11-13-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
SIEVE ANALYSIS	1	N/A
N/A	N/A	

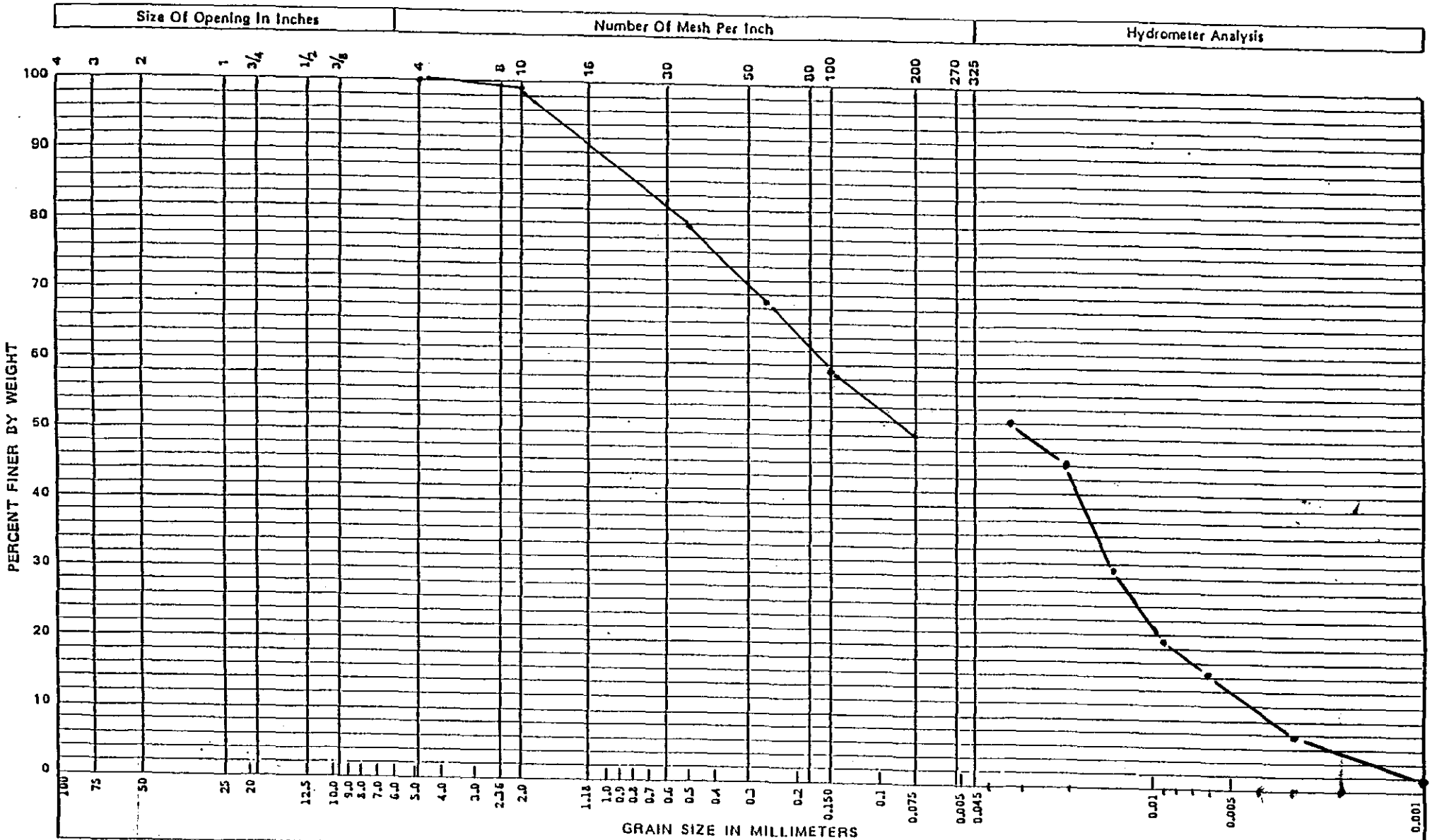
Remarks SAMPLE MW-10-5
USE ETAL-07 DRAFT.

Received By: R.G ALEXANDER Date 11-13-89

Approved By: RG ALEXANDER Date 11-13-89
FOR J.W. CAMMANN

9 2 1 2 1 1 0 7 0 2

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-076 Procedure No: ETAL-07 Rev. 1 Date Issued 11-15-89

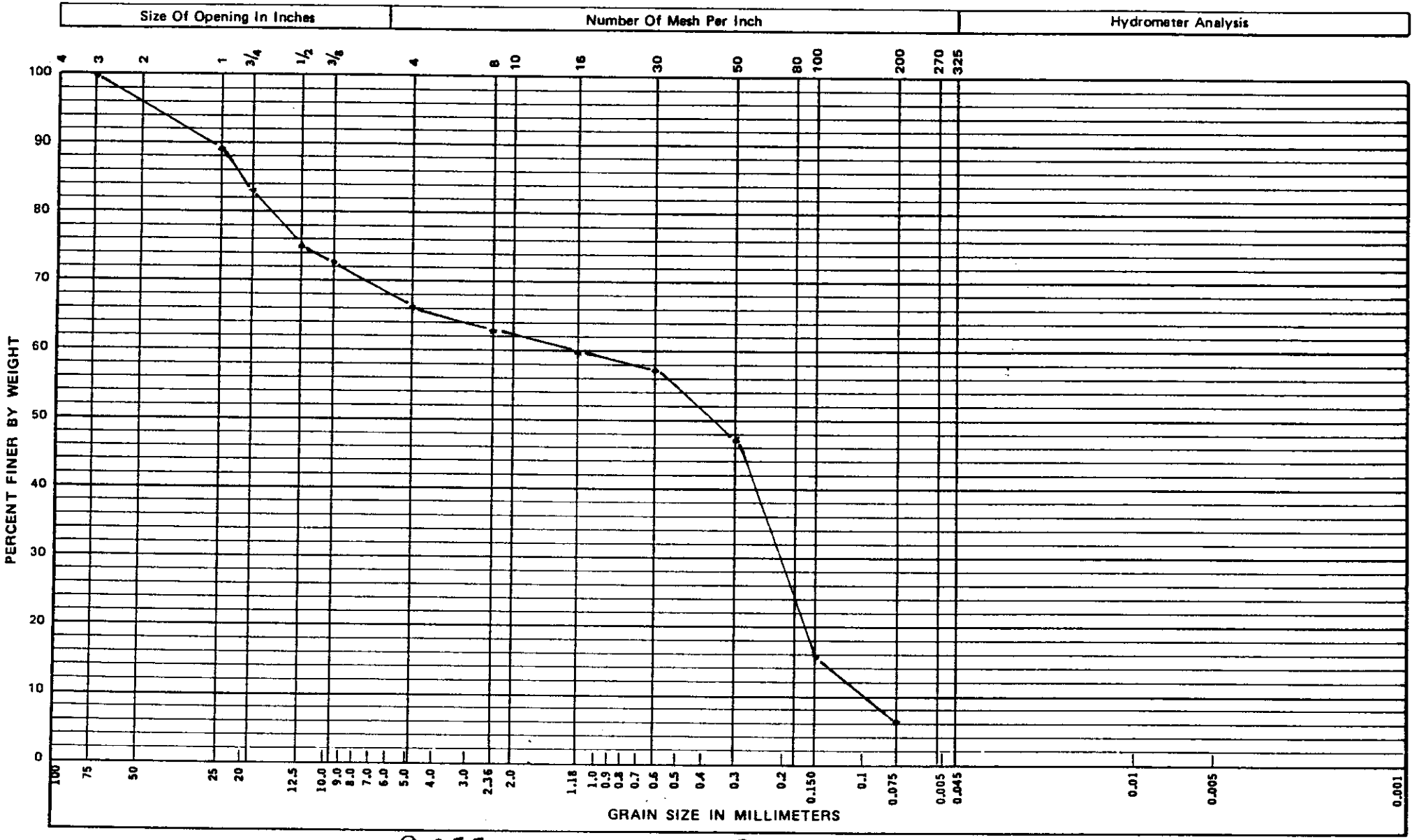
Sample Description: SILTY SAND
MW-10-6
FROM HYD. COND. SAMPLE.

Plotted by: R.G ALEXANDER
Date: 12-22-89

Checked by: HL Benny
Date: 1-11-90

9 2 1 2 1 0 0 4

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-055 Procedure No. LDE-EEG-67 ETAL-67 Rev. Ø Date Issued 7-10-89

Sample Description:	Plotted by:	Checked by:
MW-10-5 SANDY GRAVEL	R.G ALEXANDER	J A Relyea
	Date: 11-14-89	Date: 11+14-89

Westinghouse Hanford Company

CHAIN OF CUSTODY

Company Contact: JW. Lindberg Telephone: 6-5005

Sample Collected by: D. Weekes Date: 11/10/89 Time:

Sample Locations: Horn Rapids Landfill, MW-10

Ice Chest No.: Not required Field Logbook Page No.:

Remarks: Sieve Analysis ~~and moisture~~ JW Lindberg 11/10/89

Method of Shipment: Hand carry

Sample Identification

MW-10-5

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By [signature]
Operational Health Physics

Remarks MW-10-5
47'-49'

54-3000-022 (09/88)

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg	[signature]	11/10/89 2:38PM
JT Relyea	RG Alexander	11/13/89 7:24AM

9212110105

TEST REQUEST FORM

Sample/Specimen No. 9-076 Cost Code/Work Order No. ED332

Requested By: Org. 80232 Person J. LINDBERG Date 12-20-89

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
SIEVE ANALYSIS	1	ETAL-07
HYDROMETER	1	ETAL-07
HYD. CONDUCTIVITY	1	ETAL-09
ATTERBERG LIMITS	1	ETAL-18

Remarks FIELD SAMPLE MW-10-6

Received By: R.G ALEXANDER Date 12-20-89

Approved By: R.G ALEXANDER Date 12-20-89

9212110105

SIEVE ANALYSIS DATA SHEET

Sample ID 9-076 Page 1 of 1

Tested By R. G. ALEXANDER Date 12-20-89

Procedure ETAL-07 Rev 1 Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	12-28-89
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SILTY SAND Sieve Time 10 (min)

reduced by ☒ splitting ☐ quartering ☐ stockpile

BEFORE TEST WT. (B) N/A AFTER TEST WT. (A) N/A $\frac{B-A}{B}$ X 100 = N/A % LOSS

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A		N/A					
	#4	153.30	Ø	Ø	Ø	100	100
	#10		1.60	1.0	1.0	99.0	99.0
	#40		30.99	20.2	20.2	79.8	79.8
	#60		47.73	31.1	31.1	68.9	68.9
	#100		62.67	40.9	40.9	59.1	59.1
	#200		76.62	50.0	50.0	50.0	50.0

Finess Modules (FM) N/A (See ASTM C 136-83, Section 8.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve N/A %

D=Original Dry Weight of Sample N/A g

E=Dry Weight of Sample After Drying N/A g

C = <(D-E)/D> X 100

Remarks

WASH FINE GRADING
CUT SAMPLE FROM 2'
LEXAN (4" O.D.) TUBE
USED FOR IMPACT HYD. COND.

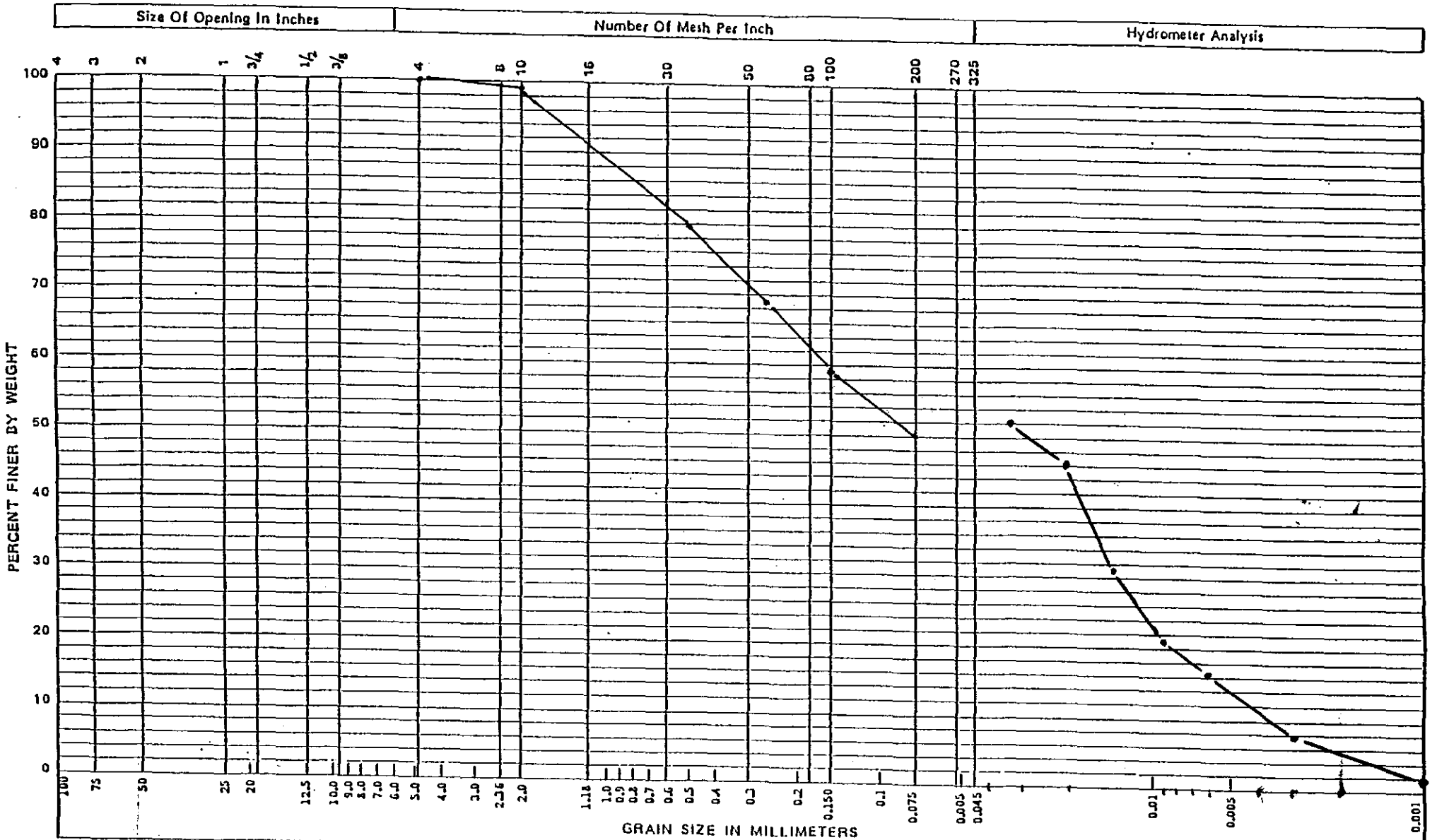
ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

Checked By HC Bonny Date 1-11-90

A-6400-204(2-87)

9212107

GRAIN SIZE ANALYSIS PLOT



Specimen No. 9-076 Procedure No: ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: SILTY SAND
MW-10-6
FROM HYD. COND. SAMPLE.

Plotted by: R.G ALEXANDER
Date: 12-22-89

Checked by: HL Benny
Date: 1-11-90

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

THERMOMETER NO. 0006 CALIBRATION DUE DATE 2-6-90

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
9-076	2137.26	1775.52	584.72	1552.54	1190.80	30.4

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: R.G. ALEXANDER DATE 12-21-89

9212110.09

SPECIFIC GRAVITY OF SOILS DATA SHEET

Specimen/Sample No. 9-076 Page 1 of 1

Test Operator R.G. ALEXANDER 3-2-90

EQUIPMENT ITEM	NO.	DATE DUE
Balance	3304	3-25-90
Oven Thermometer	0007	8-16-90
Thermometer	0002	2-9-91
Pycnometer	2554	N/A

Wetting Agent "Q" WATER

	DETERMINATION NO.	1	2	3
	Drying Container No.	N/A	N/A	N/A
	Wt. Container + Oven Dry Soil, ± 0.01g	N/A .__	.__	.__
	Wt. Container, ± 0.01g	N/A .__	.__	.__
W_o	Wt. Oven Dry Soil, g	40.00	.__	.__
	Pycnometer No.	2554		
	Wt. Pycnometer, g	135.72	.__	.__
W_a	Wt. Pycnometer + Wetting Agent, g	387.10	.__	.__
W_b	Wt. Pycnometer + Wetting Agent + Soil, g	411.80	.__	.__
	Temperature, T_x at W_b, °C	23.0 C	.	.
G_w	Specific Gravity of Wetting Agent at T_x	1.00	_.__	_.__
G_t	Specific Gravity of Soil at T_x	2.61	_.__	_.__
G_s	Specific Gravity of Soil at 20°C	2.61	_.__	_.__

$$G_t = \frac{G_w \cdot \gamma_w \cdot W_o}{W_o + (W_a - W_b)}$$

γ_w = Unit Weight Of Water (g/cc)

*$G_s = K \cdot G_t$

K values found in ASTM D854-58, Table 1

*NOTE $G_s = G_t$ When Test Run at 20 °c

Average Specific Gravity At 20°c	2.61

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HL Benny Date 3-2-90

A-6400-235 (9-86)

9 2 1 1 1 0 7 1 0

HYDROMETER ANALYSIS DATA SHEET

Sample ID 9-076 Page 1 of 1

Tested By HL Benny Date 3-7-90

Procedure ETAL 07 Rev 1 Date Issued 11-15-89

EQUIPMENT ITEM	NO.	CALIBRATION DUE DATE
Hydrometer	1000	2-16-91
Balance	3304	3-25-90
Thermometer/Thermocouple	0002	2-9-91

Specific gravity of Sample 2.61

% Passing No. 10 Sieve 99.0 (%)

Hygroscopic Correction Factor Ø

WEIGHT OF SAMPLE

Wt. Container + Soil NA (g)

Wt. Container NA (g)

Wt. Soil 51.76 (g)

COMPOSITE CORRECTION

1st Reading 7 at 24.2 °C

2nd Reading NA at NA °C

HYGROSCOPIC MOISTURE CONTENT

Wt. Container + Air Dry Soil NA (g)

Wt. Container + Oven Dry Soil NA (g)

Wt. Container NA (g)

Water Content NA (%)

REMARKS

Tube C

W= 52.28

Date	Clock time	Elapsed time (min)	Hydrometer reading	Hydrometer with composite correction	Temp. (°C)	Soil in suspension (%)	Partic diame (mm
3-7-90	0716	2.0	34	27	24.7	52.2	0.03
	0719	5.0	31	24	24.3	46.4	0.02
	0729	15.0	23	16	24.3	30.9	0.01
	0744	30.0	18	11	23.8	21.3	0.00
	0814	60.0	16	9	23.7	17.4	0.00
	1124	250.00	11	4	23.6	7.7	0.00
3-8-90	0714	1,440.0	8	1	20.8	1.9	0.00

Formulas and Tables used to calculate percent Soil in suspension, particle diameter and hygroscopic correction factor are found in ASTM D422.

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By R.G. Alexander Date 3-14-90

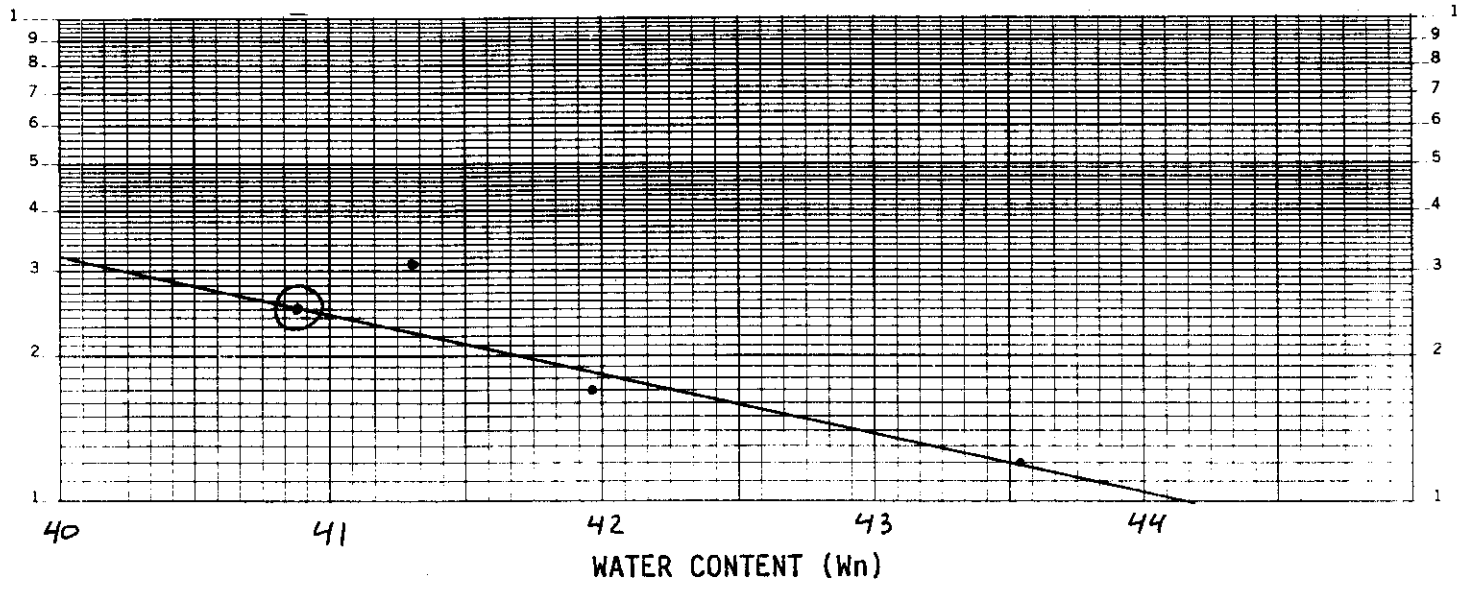
A-6400-205

PLASTIC INDEX SOILS DATA SHEET

Sample No. 9-076 Page 1 of 2

Test Operator HL Benny Date 4-9-90

Thermometer No. 0007 Calibration Date 8-16-90



Liquid Limit (LL) 40.88 Graph

Liquid Limit (LL) NA One Point

Moisture (LL) 40.88 %

Plastic Limit (PL) 34.32 (Avg.)

Moisture (PL) 33.68% 34.99% 34.28%

Plastic Index (PI)* 6.56

*PI = LL − PL

Remarks

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. LOB 4/16/90
THE TEST OPERATOR WAS APPROPIATELY TRAINED AND ULITIZED CALIBRATED TEST INSTRUMENTS. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THIS DATA.

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-018 REV. NO. Ø

THERMOMETER NO. 0007 CALIBRATION DUE DATE 8/16/90

Blows	SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
	9-076-1	22.46	21.82	19.92	2.54	1.90	33.68
	-2	24.33	22.92	18.89	5.44	4.03	34.99
	-3	23.91	22.58	18.70	5.21	3.88	34.28
						Average % Water	34.32
17	9-076-4	44.01	36.72	19.34	24.68	17.38	41.94
31	-5	33.60	29.54	19.71	13.89	9.83	41.30
25	-6	30.46	27.30	19.57	10.89	7.73	40.88
12	-7	26.33	21.76	11.26	15.07	10.50	43.52

LDB 4/16/90

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND TEST PROCEDURES FOLLOWED TO PRODUCE THE ABOVE DATA

TEST OPERATOR: HL Benny DATE 4/9/90

9212110013

HYDRAULIC CONDUCTIVITY OF SOILS DATA SHEET

Sample No. 9-076 Page 1 of 5

Test Operator R.G ALEXANDER Date 12-20-89

EQUIPMENT ITEM	NO.	DATE DUE
Balance	3304	12-28-89
Oven Thermometer	0006	2-6-90
Thermometer	N/A	N/A
Thermocouple		
Temperature Controller		
Pressure Gauge		
Pressure Transducer		
Pressure Transducer		
Back Pressure Gauge		
Pressure Transducer		
Pressure Transducer	N/A	N/A
Calipers	5623	8-16-90
Load Frame	N/A	N/A
Data Logger		
N/A		
N/A		
N/A	N/A	N/A

☐ Immediate (User) Calibration Performed. (Documentation To Be Attached)

Sample Preparation

PARTICLE SIZE (Sieve Mesh Range)			WEIGHT
N/A	To	N/A	N/A %
	To		%
	To		%
	To		%
	To		%
	To		%
	To		%
			Total 100 %

OTHER COMPONENTS	
N/A	N/A %
	%
	%
	Total 100 %

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HC Benny Date 1-11-90

Specimen No. 9-076

SAMPLE PREPARATION

Determine Weight of Samples in Container

Container No.	#5
Wt. of Sample + Container, g	RH 12-20-89 ~~3~~ 2137.26
Wt. of Container, g	584.72
Wt. of Sample, g	1552.54

Determine the Water Content of the "Air Dry" Sample

Container No.	5
Wt. Container & Wet Soil (A), g	2137.26
Wt. Container & Dry Soil (B), g	1775.52
Wt. of Water, g	361.74
Wt. of Container (C), g	584.72
Wt. of Dry Soil, W_s, g	1190.80
Water Content (W), %	30.4

$$W = \left(\frac{A - B}{B - C}\right) 100$$

SAMPLE COMPONENT	SPECIFIC GRAVITY, G	LABORATORY NOTEBOOK DATA LOCATION
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HC Bennyp Date 1-11-90

9212110715

Sample No. 9-076

SAMPLE COMPACTION

Compaction Method Static ~~N/A~~ Tamping ~~N/A~~

STATIC or TAMPING	Load Applied, g/ Layer length, cm	Layer 1	N/A	11	N/A
		2		12	
	No. Tamps per Layer/ Layer Length, cm	3		13	
		4		14	
		5		15	
		6		16	
	Total No. of Layers N/A	7		17	
	INTACT SAMPLE FROM SPLIT TUBE IN 4" LUCITE TUBE	8		18	
		9		19	
		10		20	

Tamper Foot Diameter cm	N/A
Tamper Applied Load, g	N/A
Sample Diameter, (d), cm	9.54
Sample Length, (L), cm	15.19
Sample Mold or Permeameter Weight & Compacted Sample, g	2262.07
Sample Mold or Permeameter Weight, g	184.00
Weight of Compacted Sample, (E), g	2078.07
Weight of Container & Uncompacted Wet Sample, (A), g	2137.26
Weight of Container & Uncompacted Dry Sample, (B), g	1775.52
Weight of Water, g	361.74
Weight of Container, (C), g	584.72
Weight of Dry Soil, (WS), g	1190.80
Water Content, %	30.4
Compacted Bulk Density of Sample, (γm), g/cc	1.92
Compacted Sample Dry Density, (γd), g/cc	1.47

$$\gamma m = \frac{E}{(\pi)\,(d/2)^2 (L)}$$

$$\gamma d = \left(\frac{\gamma m}{W + 100}\right) 100$$

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HC Benny Date 1-11-90

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID. 9-076 Page 4 of 5

Procedure No. BTAL-09 Date Issued 11-15-89

DATE	TIME			VOLUME DETERMINANTS							
Year 89 (Mo/Day)	System Down (Hr: Min)	System Up (Hr: Min)	Time Change (Hr: Min)	Effluent Temp (°C)	Effluent Weight (±0.1g)	Container Tare (±0.1g)	Container Tare & Effluent (±0.1g)	System Temp (°C)	Pressure Pore H_2O ~~(psi)~~ CM	Pressure Back H_2O (psi)	Operato Initials
12-28	—	1100	START TEST			148.14	—	—	190.5	N/A	RGA
1-3-90	1100	1105	144:00	21°	54.06	148.14	202.20	21°	190.5	N/A	RGA
1-5	1105	1110	48:00	22°	18.89	148.14	167.03	22°	190.5	N/A	RGA
1-9	1110	1115	96:00	22°	44.93	150.52	192.45	22°	190.5	N/A	RGA
1-10	1115	STOP	24:00	21°	9.61	150.52	159.68	21°	190.5	N/A	RGA
1-10	—	—	STOP TEST		—	—	—	—	—	—	—

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By HL Benny Date 1-11-90

9 2 1 2 1 0 1 7

A-6400-234.2 (7-8

HYDRAULIC CONDUCTIVITY DATA SHEET

Sample ID 9-076 Page 5 of 5

Procedure No. ETAL-09 Date Issued 11-15-89

Date Year 89 (Mo/Day)	Hydraulic Conductivity (cm/sec)	Hydraulic Gradient (cm/cm)	Effluent Analysis (Sample Number)	Effluent Analysis Lab. Notebook Location	Effluent Description	Operator Initials
12-28	START	TEST	—	—	—	RGA
1-3-90	1.16×10^{-7}	12.54	—	—	CLEAR	RGA
1-5-90	1.22×10^{-7}	12.54	—	—	CLEAR	RGA
1-9-90	1.35×10^{-7}	12.54	—	—	CLEAR	RGA
1-10-90	1.24×10^{-7}	12.54	—	—	CLEAR	RGA
STOP	TEST	$1.2 \pm 0.2 \times 10^{-7}$ CM/SEC			—	—

ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By H.C. Benny Date 1-11-90

A-6400-234.3 (7-8

9 2 1 2 1 1 3 7 1 9

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JW Lindberg Telephone 6-5005

Sample Collected by: Thomas/Weekes/Lindberg Date: 11/6/89-11/14/89 Time: N/A

Sample Locations: MW-10 CERCLA 1100-EM-1

Ice Chest No.: N/A Field Logbook & Page No.: WHC-N-306-2 ~~pages~~ 8-13

Remarks: Silt sample collected by drive barrel & labelled MW-10-6 may be sent to core & sample storage area in 2101-M Bldg. Sample MW-10-5 already sent in to Jerry Alexander for Quick-Turn-Around sieve analysis.

Bill of Lading No.: N/A Off Site Property No.: N/A

Method of Shipment: Hand carry

Shipped to: Jerry Alexander, 2101-M Bldg, Physical Testing Lab

Sample Identification

MW-10-1 plastic bags
MW-10-2 plastic bags
MW-10-3 plastic bags
MW-10-4 plastic bags
~~MW-10-5 plastic bags~~ JW Lindberg 11/14/89
MW-10-6 Split spoon-lexan tube

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg	R.G. Alexander	11/28/89 3:30
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

FVR\071889-B

9 2 1 2 1 1 0 1 9

SAMPLING ANALYSIS REQUEST

Part I: Field Section

Collector Weekes Date Sampled 11/7-11/14 1989 Time Variable hours

Affiliation of Sampler WHC

Address _____
number street city state zip

Telephone ( ) _____ Company Contact _____

LABORATORY SAMPLE NUMBER	COLLECTOR'S SAMPLE NO.	TYPE OF SAMPLE*	FIELD INFORMATION**
	MW-10-3	Plastic Bag	Sieve/Hydrom and Moisture
	MW-10-4	" "	Sieve/Hydrom
	MW-10-6	lexan tube	Permeability (cohesive)

Analysis Requested see field information** above right

Special Handling and/or Storage _____

PART II: LABORATORY SECTION**

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate whether sample is soil, sludge, etc.
**Use back of page for additional information relative to sample location.

Figure 9-19. Example of hazardous waste sample analysis sheet.

Revision 0
Date September 1986

9212110020

RADIATION RELEASE

Bldg. Drilling MW 6 site Date 11-21-89

Released By C. D. Fulwyler
Operational Health Physics

Remarks 2 Detectable sample # MW-6-5 MW-6-5

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89.

Released By
Operational Health Physics

Remarks MW-10-2
Sieve & moisture anal.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-27-89

Released By
Operational Health Physics

Remarks MW-8-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-7-89

Released By
Operational Health Physics

Remarks MW-10-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapid Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-2

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-10-89

Released By
Operational Health Physics

Remarks MW-10-4
41.5'-42'

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 10-30-89

Released By
Operational Health Physics

Remarks MW-8-3

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-7-3 Date 12-11-

Released By
Operational Health Physics

Remarks

54-3000-022 (09/8

RADIATION RELEASE

Bldg. Horn Rapids Date 11-6-89

Released By
Operational Health Physics

Remarks [redacted] 9.5f to 10.5
MW-10-1

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. Horn Rapids Date 11-14-89

Released By
Operational Health Physics

Remarks MW-10-6
65.5-67.5'

54-3000-022 (09/88)