

TEST REQUEST FORM

Sample/Specimen No. 0-025 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
<u>SIEVE ANALYSIS</u>	<u>1</u>	<u>ETAL-07</u>
<u>MOISTURE</u>	<u>1</u>	<u>ETAL-14</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Remarks FIELD SAMPLE
MW-L-1

Received By: R.G ALEXANDER Date 1-16-90

Approved By: R.G ALEXANDER Date 1-24-90



8-212-110001

SIEVE ANALYSIS DATA SHEET

Sample ID 0-025 Page 1 of 1

Tested By R. G. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	4900.60	156.23	3.2	3.2	96.8	96.8
	1/2		394.49	8.0	8.0	92.0	92.0
	1		773.43	15.8	15.8	84.2	84.2
	3/4		1231.88	25.1	25.1	74.9	74.9
	1/2		2524.24	41.3	41.3	58.7	58.7
	3/8		2529.17	51.6	51.6	48.4	48.4
	#4	↓	3130.59	63.9	63.9	36.1	36.1
	#10	4900.60	3535.81	72.2	72.2	27.8	27.8
	#40	114.32	51.05	44.7	44.7	55.3	15.4
	#60	↓	71.13	62.2	62.2	37.8	10.5
	#100	↓	80.88	70.7	70.7	29.3	8.1
↓	#200	↓	89.38	78.2	78.2	21.8	6.1

Fines 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 21.8%
 D=Original Dry Weight of Sample 11432 g
 E=Dry Weight of Sample After Washing/Sieve 8938 g
 $C = \frac{D-E}{D} \times 100$

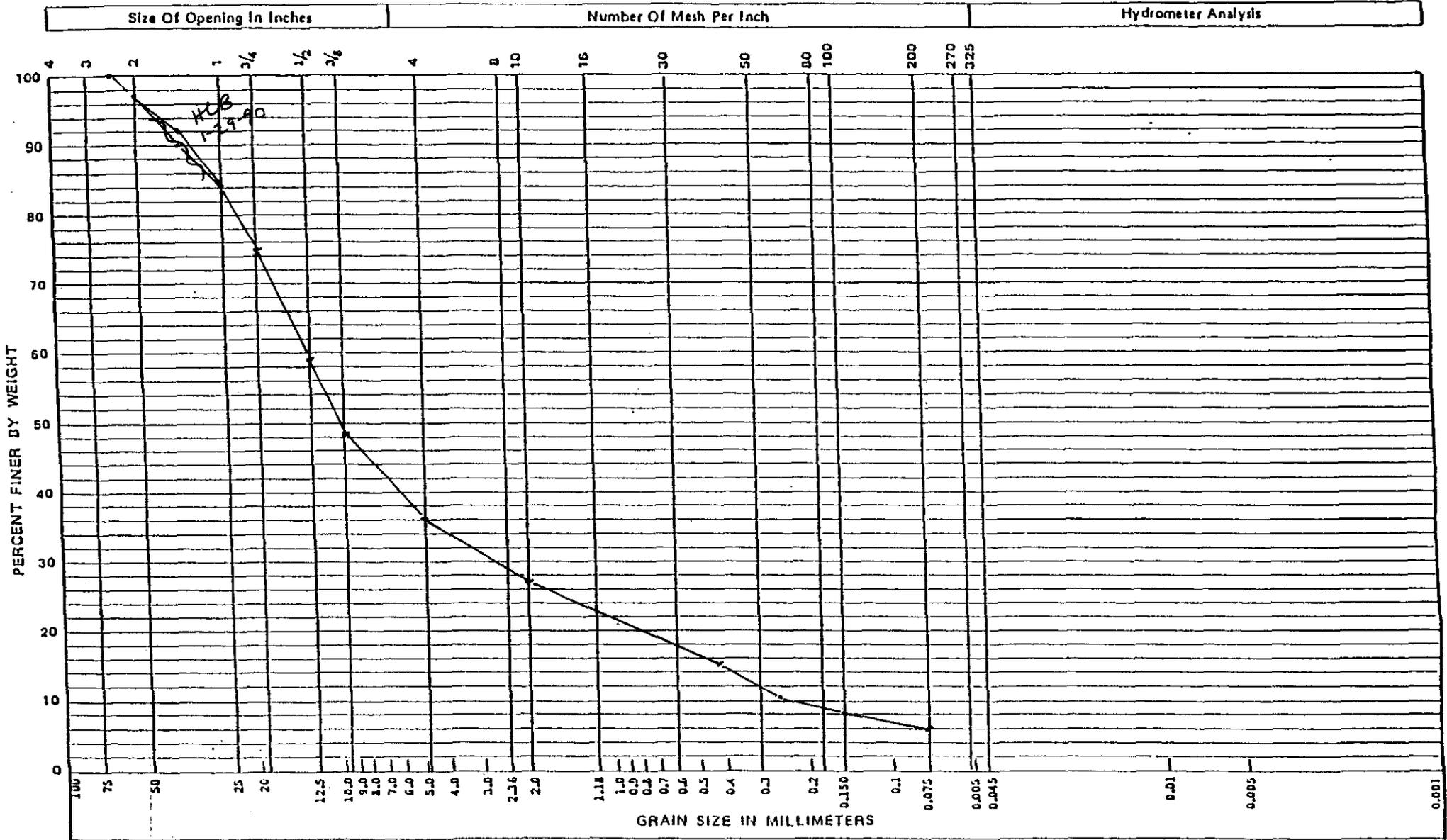
Remarks
WASH FINE GRADING
SMALL FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
 Checked By HL Benny Date 1-29-90

82121102

9 2 1 2 1 0 3

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-025 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: <u>SANDY GRAVEL</u> <u>MW-1-1</u>	Plotted by: <u>R.G. ALEXANDER</u>	Checked by: <u>HCBenny</u>
	Date: <u>1-24-90</u>	Date: <u>1-29-90</u>



CHAIN OF CUSTODY

75-1-12-90

Company Contact: Jon Lindberg Telephone: 68-5005

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WHC-N-306-5, Page 1- 2
Field Logbook Page No.: 2

Remarks: Ship sample to 2101-M for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 " (Results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>RG Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

9212-11005



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone () 3-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil	G "
MW-1-3	"	soil	"
MW-1-4	"	soil	"
MW-1-5	"	soil	"
MW-1-6	"	soil	Grain Size
MW-1-7	"	soil	Grain Size

Field Information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

921211006

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics
Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics
Remarks _____

MW-1-7 54-3000-022 (09/88)

92121007

TEST REQUEST FORM

Sample/Specimen No. D-026 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

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

Remarks FIELD SAMPLE
MW-1-2

Received By: R.G ALEXANDER Date 1-16-90

Approved By: R.G ALEXANDER Date 1-24-90

9-21211008

SIEVE ANALYSIS DATA SHEET

Sample ID D-026 Page 1 of 1

Tested By R. G. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>	<u>2</u>	<u>4309.61</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>100</u>	<u>100</u>
	<u>1 1/2</u>		<u>478.23</u>	<u>11.1</u>	<u>11.1</u>	<u>88.9</u>	<u>88.9</u>
	<u>1</u>		<u>1005.06</u>	<u>23.3</u>	<u>28.3</u>	<u>76.7</u>	<u>76.7</u>
	<u>3/4</u>		<u>1352.78</u>	<u>31.4</u>	<u>31.4</u>	<u>68.6</u>	<u>68.6</u>
	<u>1/2</u>		<u>1737.44</u>	<u>40.3</u>	<u>40.3</u>	<u>59.7</u>	<u>59.7</u>
	<u>3/8</u>		<u>1990.25</u>	<u>46.2</u>	<u>46.2</u>	<u>53.8</u>	<u>53.8</u>
	<u>#4</u>		<u>2364.57</u>	<u>54.9</u>	<u>54.9</u>	<u>45.1</u>	<u>45.1</u>
	<u>#10</u>	<u>4309.61</u>	<u>2717.59</u>	<u>63.1</u>	<u>63.1</u>	<u>36.9</u>	<u>36.9</u>
	<u>#40</u>	<u>110.61</u>	<u>74.61</u>	<u>67.5</u>	<u>67.5</u>	<u>32.5</u>	<u>32.5</u>
	<u>#60</u>		<u>89.40</u>	<u>80.8</u>	<u>80.8</u>	<u>19.2</u>	<u>19.2</u>
	<u>#100</u>		<u>94.53</u>	<u>85.5</u>	<u>85.5</u>	<u>14.5</u>	<u>14.5</u>
	<u>#200</u>		<u>98.60</u>	<u>89.1</u>	<u>89.1</u>	<u>10.9</u>	<u>10.9</u>

Fines 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 10.9 %

D=Original Dry Weight of Sample 110.61 g

E=Dry Weight of Sample After Washing/Sieve 98.60 g

$$C = \frac{D-E}{D} \times 100$$

Remarks

WASH GRADING
SMALL FIELD
SAMPLE

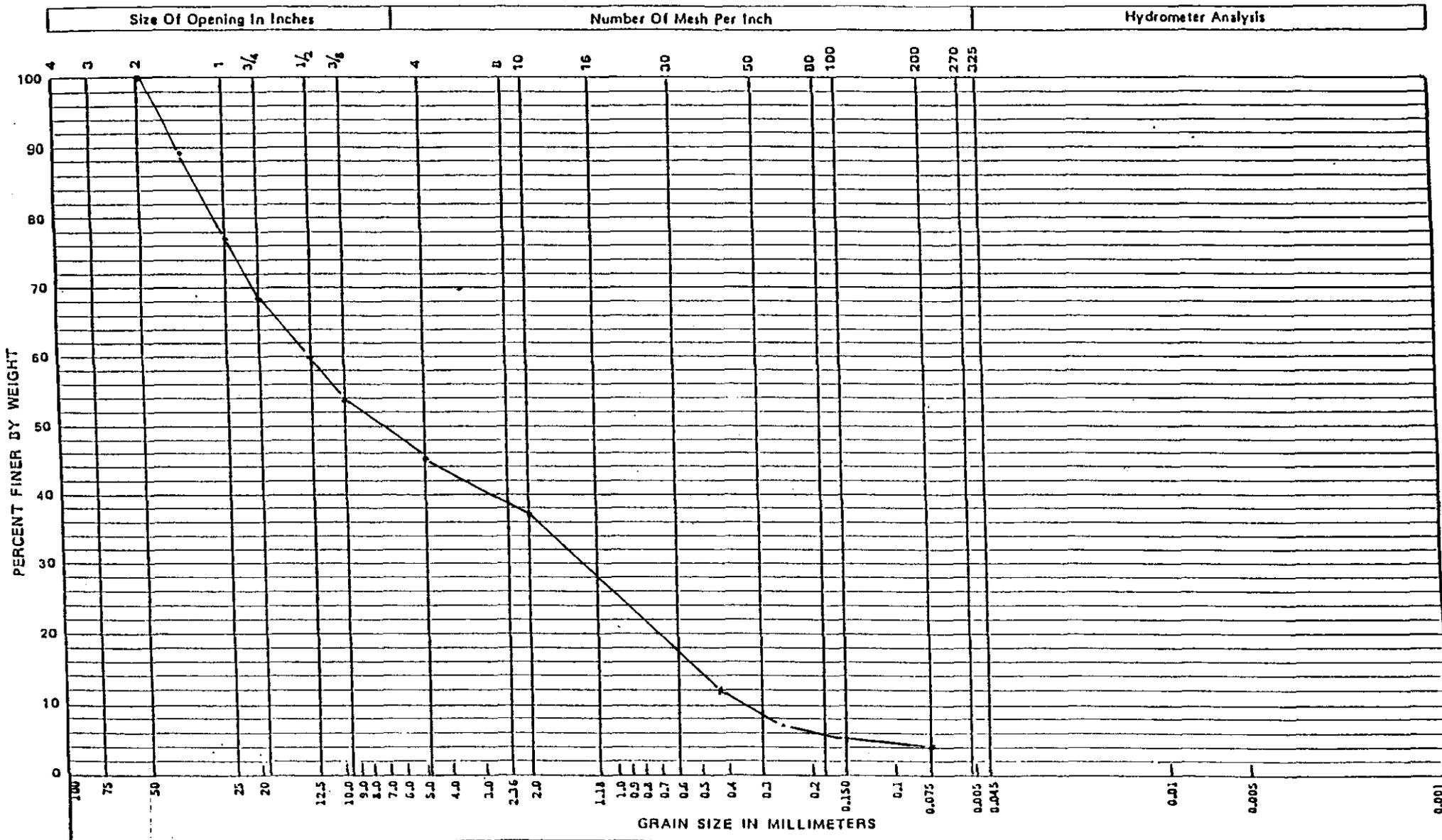
ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

Checked By HL Benny Date 1-26-90

921211009

9 2 1 2 1 1 0 1 0

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-026 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: SANDY GRAVEL
MW-1-2

Plotted by: R.G. ALEXANDER
Date: 1-24-90

Checked by: HL Benny
Date: 1-26-90



CHAIN OF CUSTODY

1-12-90

Company Contact: Jon Lindberg Telephone: 68-5005

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WHC-N-306-5, Page 1- 2
Field Logbook Page No.: 2

Remarks: Ship sample to 2101-M for physical testing
Push sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 " (Results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>RG Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

9212140012



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone (1) 3-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE *	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil	G "
MW-1-3	"	soil	"
MW-1-4	"	soil	"
MW-1-5	"	soil	"
MW-1-6	"	soil	Grain Size
MW-1-7	"	soil	Grain Size

Field Information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.

** Use Back of Page for Additional Information Relative to Sample Location.

9213110013

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics

Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <F> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics

Remarks _____

MW-1-7 54-3000-022 (09/88)

9 2 1 2 3 4

TEST REQUEST FORM

Sample/Specimen No. 0-027 Cost Code/Work Order No. ED332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
<u>STIEVE ANALYSIS</u>	<u>1</u>	<u>ETAL-07</u>
<u>HYDROMETER</u>	<u>1</u>	<u>ETAL-07</u>
<u>MOISTURE</u>	<u>1</u>	<u>ETAL-14</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Remarks FIELD SAMPLE
MW-1-3

Received By: R.G. ALEXANDER Date 1-16-90

Approved By: R.G. ALEXANDER Date 1-24-90

9-212110015

SIEVE ANALYSIS DATA SHEET

Sample ID 0-027 Page 1 of 1

Tested By R.G. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-89</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>	<u>2"</u>	<u>4786.84</u>	<u>402.35</u>	<u>8.4</u>	<u>8.4</u>	<u>91.6</u>	<u>91.6</u>
	<u>1 1/2</u>		<u>662.61</u>	<u>13.8</u>	<u>13.8</u>	<u>86.2</u>	<u>86.2</u>
	<u>1</u>		<u>1088.30</u>	<u>22.7</u>	<u>22.7</u>	<u>77.3</u>	<u>77.3</u>
	<u>3/4</u>		<u>1403.33</u>	<u>29.3</u>	<u>29.3</u>	<u>70.7</u>	<u>70.7</u>
	<u>1/2</u>		<u>1744.09</u>	<u>36.4</u>	<u>36.4</u>	<u>63.6</u>	<u>63.6</u>
	<u>3/8</u>		<u>2009.88</u>	<u>42.0</u>	<u>42.0</u>	<u>58.0</u>	<u>58.0</u>
	<u>#4</u>	↓	<u>2462.74</u>	<u>51.4</u>	<u>51.4</u>	<u>48.6</u>	<u>48.6</u>
	<u>#10</u>	<u>4786.84</u>	<u>2868.64</u>	<u>59.9</u>	<u>59.9</u>	<u>40.1</u>	<u>40.1</u>
	<u>#40</u>	<u>109.04</u>	<u>6363</u>	<u>57.8</u>	<u>57.8</u>	<u>42.2</u>	<u>16.9</u>
	<u>#60</u>		<u>78.49</u>	<u>72.0</u>	<u>72.0</u>	<u>28.0</u>	<u>11.2</u>
	<u>#100</u>		<u>86.90</u>	<u>79.7</u>	<u>79.7</u>	<u>20.3</u>	<u>8.1</u>
	<u>#200</u>	↓	<u>94.20</u>	<u>86.4</u>	<u>86.4</u>	<u>13.6</u>	<u>5.5</u>

Fines 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 13.6 %
 D=Original Dry Weight of Sample 109.04g
 E=Dry Weight of Sample After Washing/Sieve 94.20g
 $C = \frac{(D-E)}{D} \times 100$

Remarks
WASH FINE GRADING.
SMALL FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
 Checked By HL Benny Date 1-26-90

9212110716

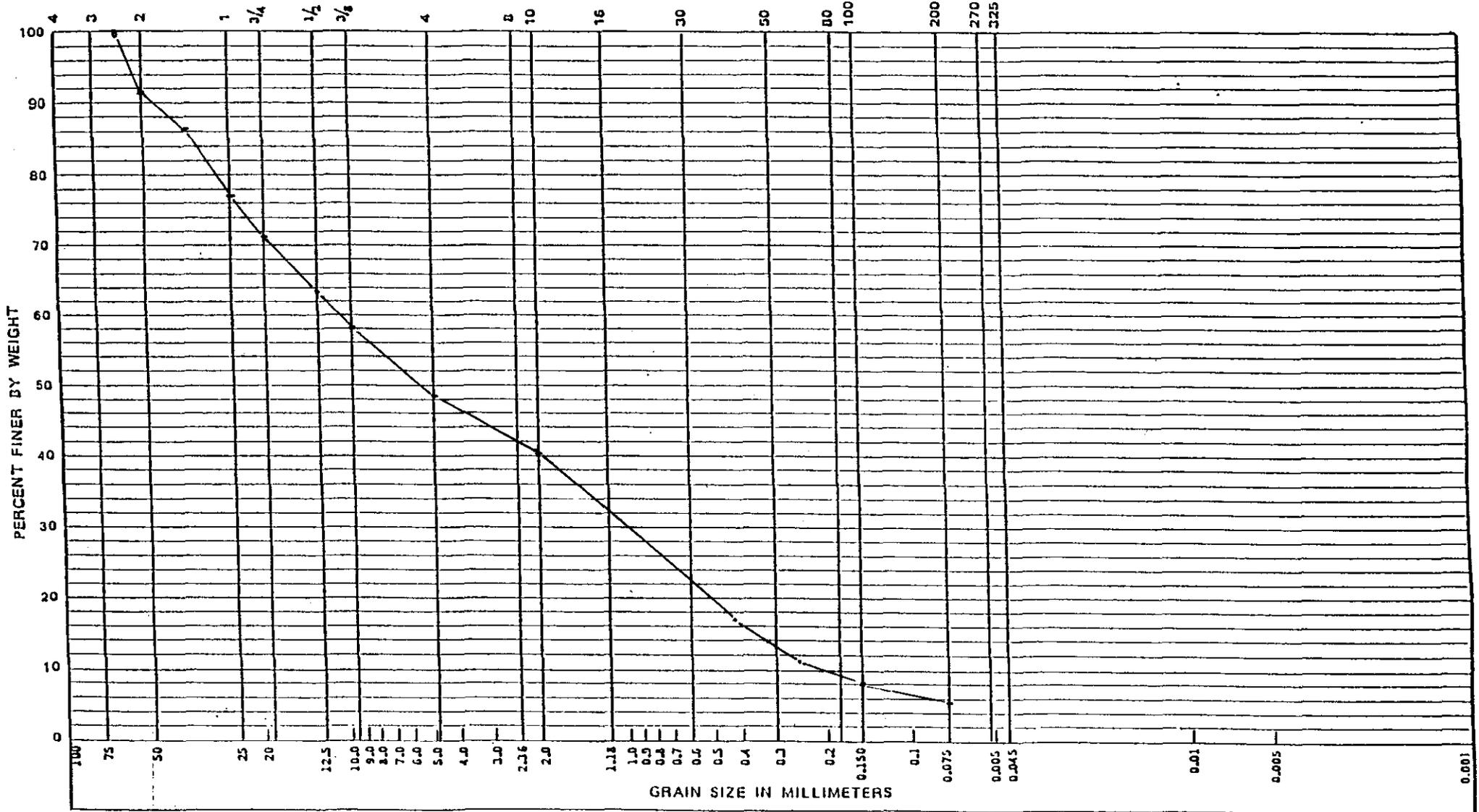
9 2 1 2 1 1 0 1 7

GRAIN SIZE ANALYSIS PLOT

Size Of Opening In Inches

Number Of Mesh Per Inch

Hydrometer Analysis



Specimen No. 6-027

Procedure No. ETAL-07

Rev. 1

Date Issued 11-15-89

Sample Description: SANDY GRAVEL
MW-1-3

Plotted by: R.G. ALEXANDER

Checked by: HL Benny

Date: 1-24-89

Date: 1-26-90



CHAIN OF CUSTODY

1-12-90

Company Contact: Jon Lindberg Telephone: 68-5005

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WHC-N-306-5, Page 1-
Field Logbook Page No.: 2

Remarks: Ship sample to 2101-M for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 (Results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>R.G. Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

92121100719



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone () 3-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE *	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil	G "
MW-1-3	"	soil	"
MW-1-4	"	soil	"
MW-1-5	"	soil	"
MW-1-6	"	soil	Grain Size
MW-1-7	"	soil	Grain Size

Field Information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

9212110720

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics

Remarks _____
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP & L on outside of bag.
54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics

Remarks _____
54-3000-022 (09/88)

92121001

TEST REQUEST FORM

Sample/Specimen No. 0028 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. KINDBERG Date 1-24-90

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

Remarks FIELD SAMPLE
MW-1-4

Received By: R. G. ALEXANDER Date 1-16-90

Approved By: R. G. ALEXANDER Date 1-24-90

9.217.156

SIEVE ANALYSIS DATA SHEET

Sample ID 0-028 Page 1 of 1

Tested By R. S. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	8-25-90
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SANDY GRAVEL Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	4"	4805.35	1607.79	33.5	33.5	66.5	66.5
	2"		1867.40	38.9	38.9	61.1	61.1
	1 1/2"		2257.47	47.0	47.0	53.0	53.0
	1"		2830.02	58.9	58.9	41.1	41.1
	3/4"		3233.01	67.3	67.3	32.7	32.7
	1/2"		3598.27	74.9	74.9	25.1	25.1
	3/8"		3756.62	78.2	78.2	21.8	21.8
	#4		3957.99	82.4	82.4	17.6	17.6
	#10	4805.35	4141.79	86.2	86.2	13.8	13.8
	#40	122.79	94.44	76.9	76.9	23.1	3.2
	#60		108.59	88.4	88.4	11.6	1.6
	#100		112.87	91.9	91.9	8.1	1.1
	#200		115.92	94.4	94.4	5.6	0.8

Fines 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 5.6 %
 D=Original Dry Weight of Sample 122.79g
 E=Dry Weight of Sample After Washing/Sieve 115.92g
 $C = \frac{D-E}{D} \times 100$

Remarks

WASH GRADING
SMALL FIELD SAMPLE
w/4" Rock (1)

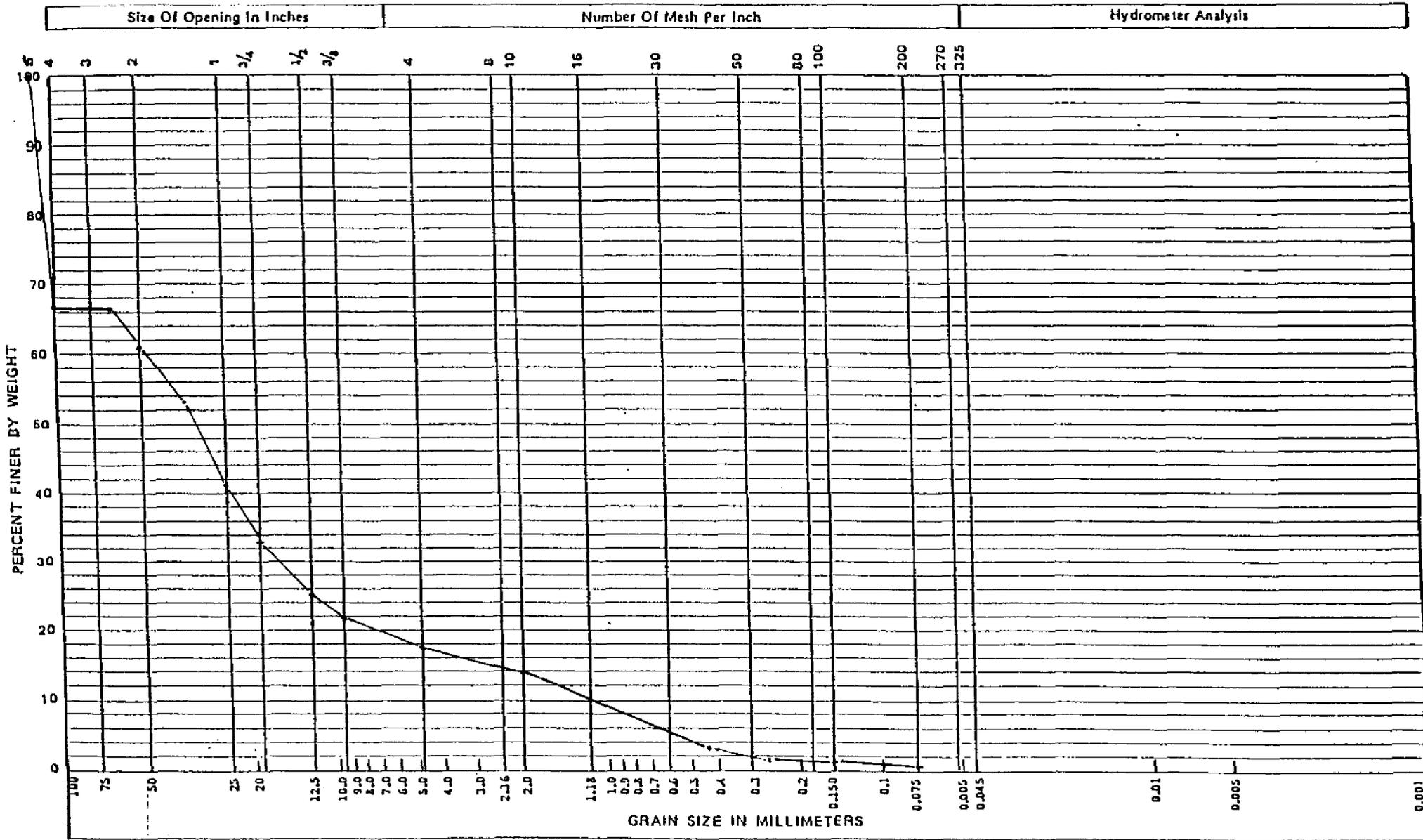
ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

Checked By HL Benny Date 1-25-90

9212110003

9 2 1 2 1 1 1 0 2 4

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-028 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: <u>SANDY GRAVEL</u> <u>MW-14</u>	Plotted by: <u>R.G. ALEXANDER</u> Date: <u>1-24-90</u>	Checked by: <u>HL Benny</u> Date: <u>1-25-90</u>
---	---	---



CHAIN OF CUSTODY

7-1-12-90

Company Contact: Jon Lindberg Telephone: 68-5065

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA Field Logbook Page No.: 2 WHC-N-306-5, Page 1-

Remarks: Ship sample to 2101-M for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 (Results within 24 hours if possible)</u>	

9212110026

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>RG Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: hours

Company Contact Jon Lindberg Telephone (503-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil	G "
MW-1-3	" "	soil	" "
MW-1-4	" "	soil	" "
MW-1-5	" "	soil	" "
MW-1-6	" "	soil	Grain Size
MW-1-7	" "	soil	Grain Size

Field Information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

9212110027

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics

Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <DP> & L on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics

Remarks <DP> & L on outside of bag.

MW-1-7 54-3000-022 (09/88)

921211023

TEST REQUEST FORM

Sample/Specimen No. 0-029 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

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

Remarks FIELD SAMPLE
MW-1-5

Received By: R.G. ALEXANDER Date 1-16-90

Approved By: R.G. ALEXANDER Date 1-24-90

9-212-110729

SIEVE ANALYSIS DATA SHEET

Sample ID 0-029 Page 1 of 1

Tested By R.G. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	3-25-90
Thermometer	0006	2-6-90
N/A	N/A	N/A

Sample Description SAND Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
N/A	2	3451.01	0	0	0	100	100
	1/2		112.15	3.2	3.2	96.8	98.6
	1		248.70	7.2	7.2	92.8	92.8
	3/4		554.69	16.1	16.1	83.9	83.9
	1/2		781.12	22.6	22.6	77.4	77.4
	3/8		845.55	24.5	24.5	75.5	75.5
	#4		961.65	27.9	27.9	72.1	72.1
	#10	3451.01	1095.76	31.8	31.8	68.2	68.2
	#40	152.84	46.65	30.5	30.5	69.5	47.4
	#60		120.76	79.0	79.0	21.0	14.3
	#100		134.33	87.9	87.9	12.1	8.3
	#200		141.86	92.8	92.8	7.2	4.9

Fines Modules (FM) N/A (See ASTM C 136-83, Section B.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve 7.2 %
 D=Original Dry Weight of Sample 152.84 g
 E=Dry Weight of Sample After Washing/Sieve 141.86 g
 $C = \frac{D-E}{D} \times 100$

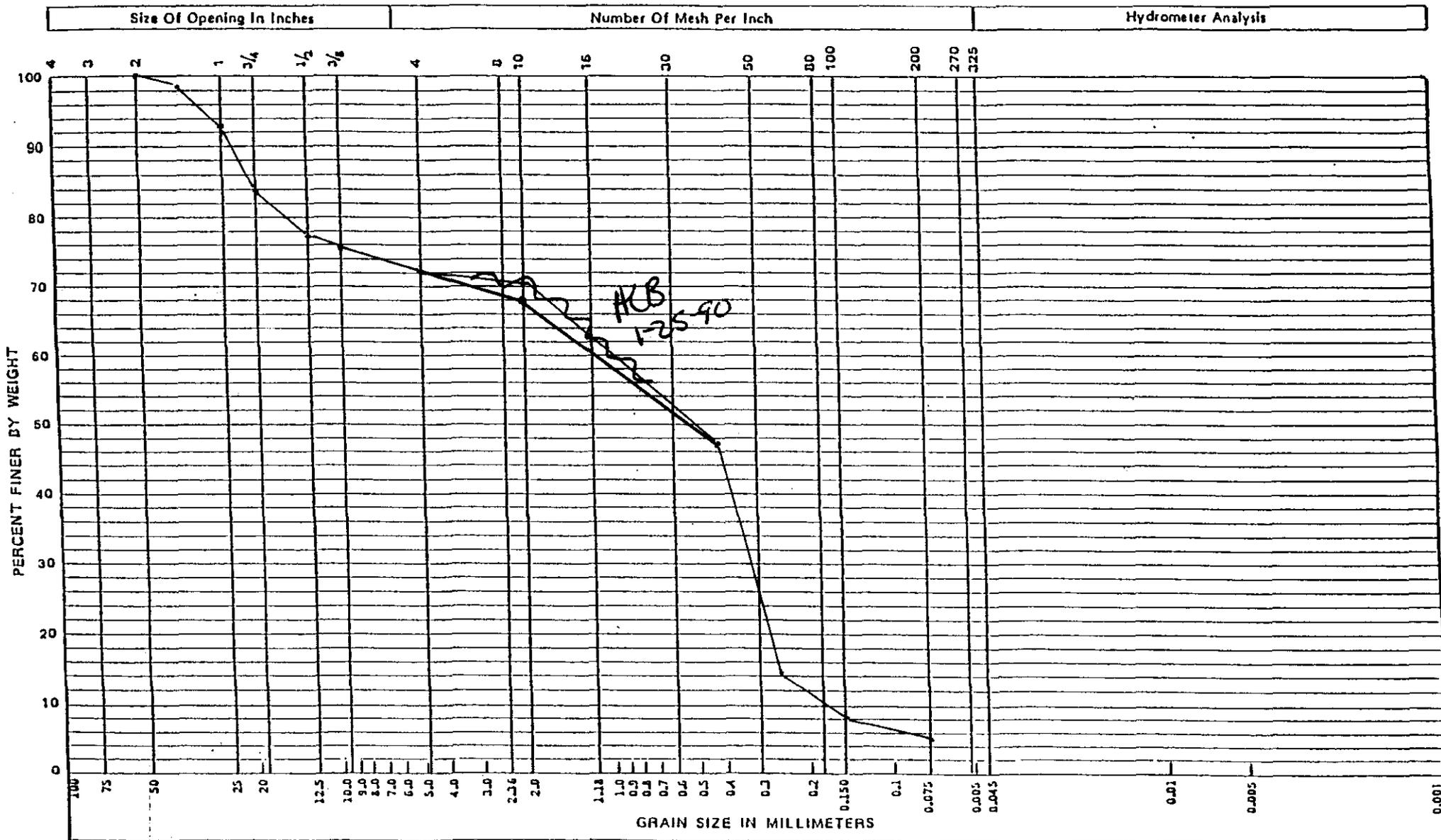
Remarks
WASH GRADING
SMALL FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
 Checked By HL Benny Date 1-25-90

9212110030

9 2 1 2 1 1 0 0 3 1

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-029 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

<p>Sample Description: <u>SAND</u> <u>MW-1-5</u></p>	<p>Plotted by: <u>R.G. ALEXANDER</u> Date: <u>1-24-90</u></p>	<p>Checked by: <u>HCBenny</u> Date: <u>1-25-90</u></p>
--	---	--



CHAIN OF CUSTODY

1-12-90

Company Contact: Jon Lindberg Telephone: 68-5065

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WAC-N-306-5, Page 1-
Field Logbook Page No.: 2

Remarks: Ship sample to 2101-A for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 (Results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>RG Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

9212100033



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone (3-5005)

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil, G	" "
MW-1-3	" "	soil	" "
MW-1-4	" "	soil	" "
MW-1-5	" "	soil	" "
MW-1-6	" "	soil	Grain Size
MW-1-7	" "	soil	Grain Size

Field information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.

** Use Back of Page for Additional Information Relative to Sample Location.

921211034

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics

Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> & α on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics

Remarks _____
MW-1-7

54-3000-022 (09/88)

9212135

TEST REQUEST FORM

Sample/Specimen No. 0-030 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

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

Remarks FIELD SAMPLE
MW-1-6

Received By: R.G. ALEXANDER Date 1-16-90

Approved By: R.G. ALEXANDER Date 1-24-90

-9-212-110136

SIEVE ANALYSIS DATA SHEET

Sample ID 0-030

Page 1 of 1

Tested By R.G. ALEXANDER Date 1-24-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL Sieve Time _____ (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>	<u>2 1/2</u>	<u>4372.61</u>	<u>373.91</u>	<u>8.6</u>	<u>8.6</u>	<u>91.4</u>	<u>91.4</u>
	<u>2</u>		<u>696.34</u>	<u>15.9</u>	<u>15.9</u>	<u>84.1</u>	<u>84.1</u>
	<u>1 1/2</u>		<u>1098.93</u>	<u>25.1</u>	<u>25.1</u>	<u>74.9</u>	<u>74.9</u>
	<u>1</u>		<u>1391.38</u>	<u>31.8</u>	<u>31.8</u>	<u>68.2</u>	<u>68.2</u>
	<u>3/4</u>		<u>1728.58</u>	<u>39.5</u>	<u>39.5</u>	<u>60.5</u>	<u>60.5</u>
	<u>1/2</u>		<u>2113.53</u>	<u>48.3</u>	<u>48.3</u>	<u>51.7</u>	<u>51.7</u>
	<u>3/8</u>		<u>2270.15</u>	<u>52.1</u>	<u>52.1</u>	<u>47.9</u>	<u>47.9</u>
	<u>#4</u>		<u>2597.13</u>	<u>59.4</u>	<u>59.4</u>	<u>40.6</u>	<u>40.6</u>
	<u>#10</u>	<u>4372.61</u>	<u>3004.11</u>	<u>68.7</u>	<u>68.7</u>	<u>31.3</u>	<u>31.3</u>
	<u>#40</u>	<u>103.29</u>	<u>68.75</u>	<u>66.6</u>	<u>66.6</u>	<u>33.4</u>	<u>10.5</u>
	<u>#60</u>		<u>84.63</u>	<u>81.9</u>	<u>81.9</u>	<u>18.1</u>	<u>5.7</u>
	<u>#100</u>		<u>89.80</u>	<u>86.9</u>	<u>86.9</u>	<u>13.1</u>	<u>4.1</u>
	<u>*200</u>		<u>93.48</u>	<u>90.5</u>	<u>90.5</u>	<u>9.5</u>	<u>3.0</u>

Fines 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 9.5 %
 D=Original Dry Weight of Sample 103.29 g
 E=Dry Weight of Sample After Washing/Sieve 93.48g
 $C = \frac{D-E}{D} \times 100$

Remarks

WASH FINE GRADING
SMALL FIELD
SAMPLE

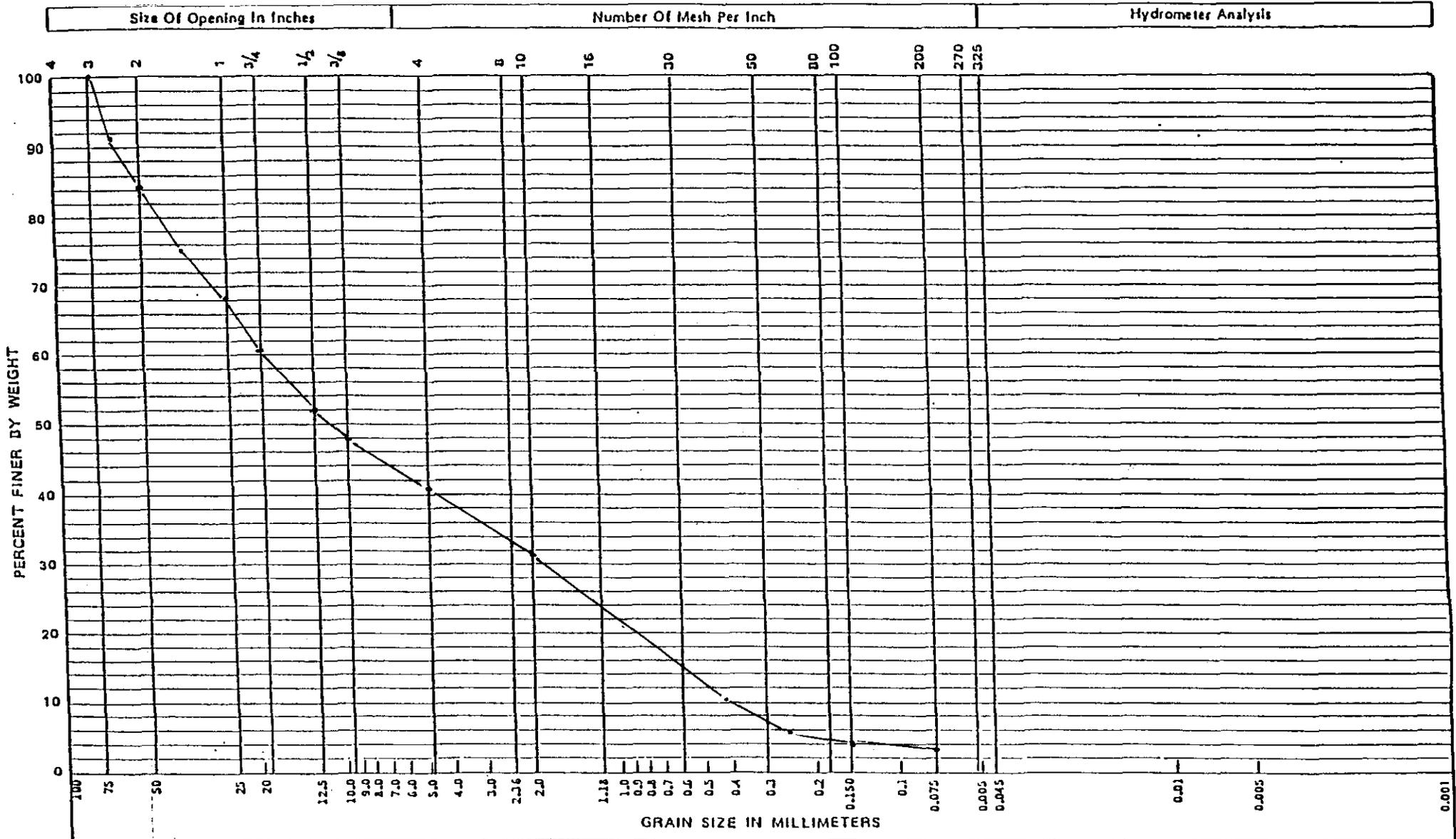
ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

Checked By HL Benny Date 1-25-90

921211037

9 2 1 2 1 1 3 3

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-030 Procedure No. ETAL-67 Rev. 1 Date Issued 11-15-89

<p>Sample Description: <u>SANDY GRAVEL</u> <u>MW 1-6</u></p>	<p>Plotted by: <u>R.G. ALEXANDER</u> Date: <u>1-24-90</u></p>	<p>Checked by: <u>HL Benny</u> Date: <u>1-25-90</u></p>
--	---	---



CHAIN OF CUSTODY

1-12-90

Company Contact: Jon Lindberg Telephone: 68-5005

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WHC-N-306-5, Page 1-
Field Logbook Page No.: 2

Remarks: Ship sample to 2101-A for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1</u>	<u>plastic bag</u>	
<u>MW-1-2</u>	<u>"</u>	
<u>MW-1-3</u>	<u>"</u>	
<u>MW-1-4</u>	<u>"</u>	
<u>MW-1-5</u>	<u>"</u>	
<u>MW-1-6</u>	<u>"</u>	
<u>MW-1-7</u>	<u>" (Results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by: <u>K.M. Singleton</u>	Received by: <u>RG Alexander</u>	Date/Time: <u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>RG Alexander</u>	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

9212-110040



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone () 3-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
MW-1-1	1 plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil G	" "
MW-1-3	"	soil	"
MW-1-4	"	soil	"
MW-1-5	"	soil	"
MW-1-6	"	soil	Grain Size
MW-1-7	"	soil	Grain Size

Field information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample Is Soil, Sludge, Water, Etc.

** Use Back of Page for Additional Information Relative to Sample Location.

9212110041

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics

Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics

Remarks <D> <P> <L> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics

Remarks _____
MW-1-7

54-3000-022 (09/88)

921242

TEST REQUEST FORM

Sample/Specimen No. 0-031 Cost Code/Work Order No. ED332

Requested By: Org. 80232 Person J. LINDBERG Date 1-24-90

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

Remarks FIELD SAMPLE
MW-1-7

Received By: R.G. ALEXANDER Date 1-16-90

Approved By: R.G. ALEXANDER Date 1-24-90

9-212-110043

SIEVE ANALYSIS DATA SHEET

Sample ID 0-031

Page 1 of 1

Tested By R.G. ALEXANDER

Date 1-24-90

Procedure ETAL-07

Rev 1

Date Issued 11-15-84

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL

Sieve Time 10 (min)

reduced by splitting

quartering

stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>	<u>4 1/2</u>	<u>4641.12</u>	<u>1222.19</u>	<u>26.3</u>	<u>26.3</u>	<u>73.7</u>	<u>73.7</u>
	<u>1 1/2</u>		<u>1305.77</u>	<u>28.1</u>	<u>28.1</u>	<u>71.9</u>	<u>71.9</u>
	<u>1</u>		<u>1696.51</u>	<u>36.6</u>	<u>36.6</u>	<u>63.4</u>	<u>63.4</u>
	<u>3/4</u>		<u>1896.90</u>	<u>40.9</u>	<u>40.9</u>	<u>59.1</u>	<u>59.1</u>
	<u>1/2</u>		<u>2188.94</u>	<u>47.2</u>	<u>47.2</u>	<u>52.8</u>	<u>52.8</u>
	<u>3/8</u>		<u>2318.45</u>	<u>50.0</u>	<u>50.0</u>	<u>50.0</u>	<u>50.0</u>
	<u>#4</u>		<u>2618.40</u>	<u>56.4</u>	<u>56.4</u>	<u>43.6</u>	<u>43.6</u>
	<u>#10</u>	<u>4641.12</u>	<u>2969.24</u>	<u>64.0</u>	<u>64.0</u>	<u>36.0</u>	<u>36.0</u>
	<u>#40</u>	<u>110.06</u>	<u>55.99</u>	<u>50.9</u>	<u>50.9</u>	<u>49.1</u>	<u>17.7</u>
	<u>#60</u>		<u>83.59</u>	<u>75.9</u>	<u>75.9</u>	<u>24.1</u>	<u>8.7</u>
	<u>#100</u>		<u>92.61</u>	<u>84.1</u>	<u>84.1</u>	<u>15.9</u>	<u>5.7</u>
	<u>#200</u>		<u>98.46</u>	<u>89.5</u>	<u>89.5</u>	<u>10.5</u>	<u>3.8</u>

Fines 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 10.5 %

D=Original Dry Weight of Sample 110.06g

E=Dry Weight of Sample After Washing/Sieve 98.46g

$$C = \frac{D-E}{D} \times 100$$

Remarks

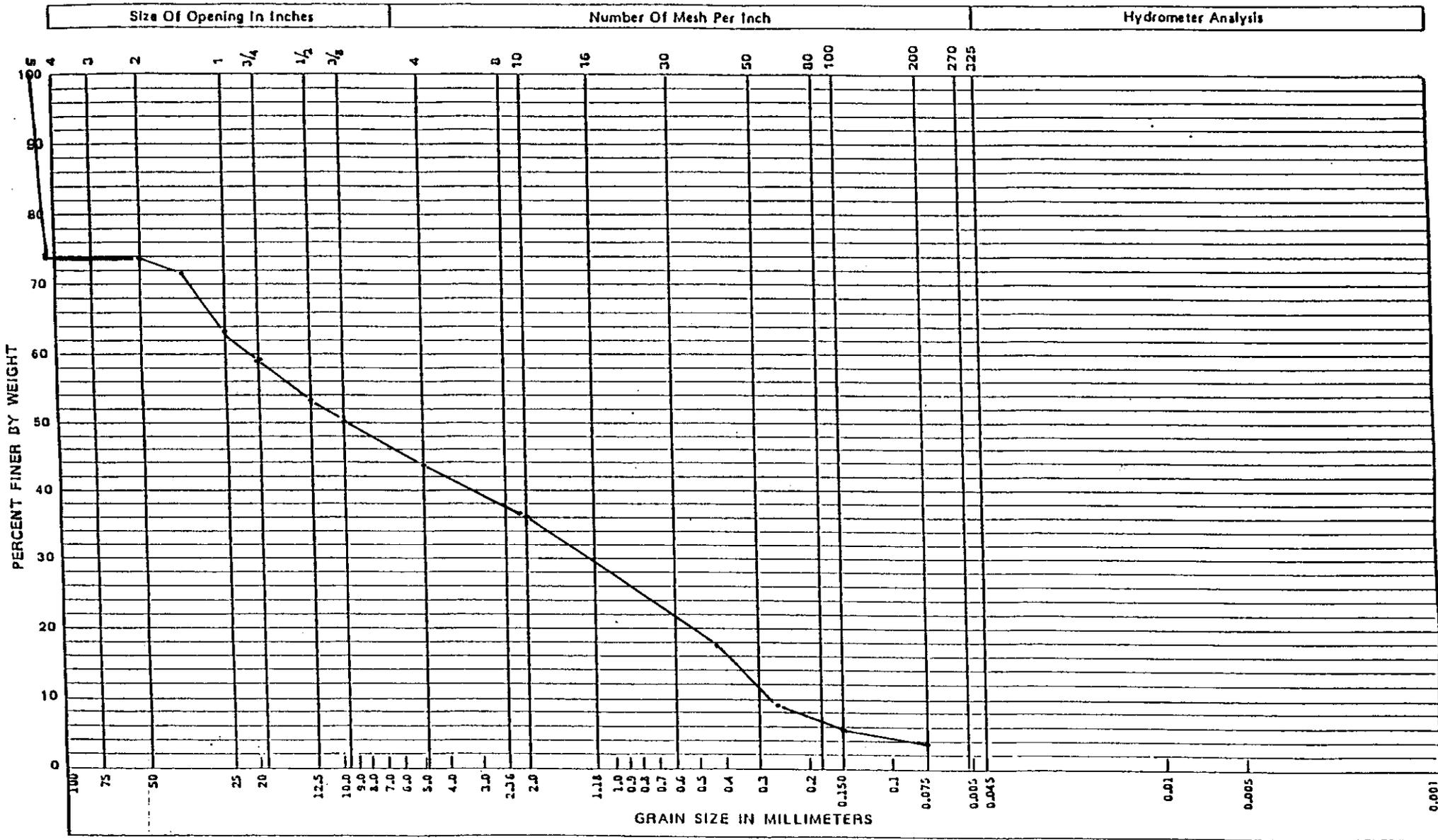
WASH GRADING
SMALL FIELD SAMPLE
(1) 4 1/2 Rock

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
Checked By HL Benny Date 1-25-90

921210044

9 2 1 2 1 1 0 4 5

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-031 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description: SANDY GRAVEL
MW 1-7

Plotted by: R.G. ALEXANDER
Date: 1-24-90

Checked by: HL Benny
Date: 1-25-90



CHAIN OF CUSTODY

1-12-90

Company Contact: Jon Lindberg Telephone: 68-5005

Sample Collected by: K.M. Singleton Date: 1-12 thru Time: NA

Sample Locations: 1100-EM-1, 1100-1, MW-1

Ice Chest No.: NA WHC-N-306-5, Page 1-
Field Logbook Page No.: 2

Remarks: Skip sample to 2101-M for physical testing
Rush sample MW-1-7 back within 24 hours if possible

Method of Shipment: Westinghouse / Truck

Sample Identification

<u>MW-1-1 plastic bag</u>	
<u>MW-1-2 "</u>	
<u>MW-1-3 "</u>	
<u>MW-1-4 "</u>	
<u>MW-1-5 "</u>	
<u>MW-1-6 "</u>	
<u>MW-1-7 (results within 24 hours if possible)</u>	

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>K.M. Singleton</u>	<u>RG Alexander</u>	<u>1-16-90 / 2:45 PM</u>
Relinquished by:	Received by: <u>Rb. Alexander</u>	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

9 2 1 4 4 7



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-12-90 Time: _____ hours

Company Contact Jon Lindberg Telephone (1) 3-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
MW-1-1	1, plastic bag soil	soil	Grain size & moisture
MW-1-2	1 plastic bag soil	soil	G "
MW-1-3	"	soil	"
MW-1-4	"	soil	"
MW-1-5	"	soil	"
MW-1-6	"	soil	Grain Size
MW-1-7	"	soil	Grain Size

Field information ** _____

Special Handling and/or Storage Push sample MW-1-7 back within 24 hours if possible

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

921411143

RADIATION RELEASE

Bldg. MW-1-1 Date 1-13-90
Released By Boyd
Operational Health Physics
Remarks _____

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-1 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-2 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-3 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-4 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-5 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-6 Date 01-15-90
Released By Boyd
Operational Health Physics
Remarks <DP> on outside of bag.

54-3000-022 (09/88)

RADIATION RELEASE

Bldg. MW-1-7 Date 01-16-90
Released By _____
Operational Health Physics
Remarks _____

MW-1-7 54-3000-022 (09/88)

921243

TEST REQUEST FORM

Sample/Specimen No. 0-050 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J LINDBERG Date 2-5-90

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

Remarks FIELD SAMPLE
MW-1-8

Received By: R.G ALEXANDER Date 1-25-90

Approved By: R.G ALEXANDER Date 2-5-90

921211050

SIEVE ANALYSIS DATA SHEET

Sample ID 0-050

Page 1 of 1

Tested By R.G ALEXANDER

Date 2-5-90

Procedure ETAL-07

Rev 1

Date Issued 11-15-89

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SANDY GRAVEL

Sieve Time 10 (min)

reduced by splitting

quartering

stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>	<u>2</u>	<u>4226.35</u>	<u>609.38</u>	<u>14.4</u>	<u>14.4</u>	<u>85.6</u>	<u>85.6</u>
	<u>1 1/2</u>		<u>874.18</u>	<u>20.7</u>	<u>20.7</u>	<u>79.3</u>	<u>79.3</u>
	<u>1</u>		<u>1238.40</u>	<u>29.3</u>	<u>29.3</u>	<u>70.7</u>	<u>70.7</u>
	<u>3/4</u>		<u>1502.44</u>	<u>35.5</u>	<u>35.5</u>	<u>64.5</u>	<u>64.5</u>
	<u>1/2</u>		<u>1793.82</u>	<u>42.4</u>	<u>42.4</u>	<u>57.6</u>	<u>57.6</u>
	<u>3/8</u>		<u>2012.63</u>	<u>47.6</u>	<u>47.6</u>	<u>52.4</u>	<u>52.4</u>
	<u>#4</u>		<u>2493.24</u>	<u>59.0</u>	<u>59.0</u>	<u>41.0</u>	<u>41.0</u>
	<u>#10</u>		<u>2868.77</u>	<u>67.9</u>	<u>67.9</u>	<u>32.1</u>	<u>32.1</u>
	<u>#40</u>	<u>156.22</u>	<u>30.28</u>	<u>19.4</u>	<u>19.4</u>	<u>80.6</u>	<u>25.9</u>
	<u>#60</u>		<u>71.62</u>	<u>45.8</u>	<u>45.8</u>	<u>54.2</u>	<u>17.4</u>
	<u>#100</u>		<u>108.39</u>	<u>69.4</u>	<u>69.4</u>	<u>30.6</u>	<u>9.8</u>
	<u>#200</u>		<u>131.04</u>	<u>83.9</u>	<u>83.9</u>	<u>16.1</u>	<u>5.2</u>

Fines Modules (FM) N/A (See ASTM C 136-83, Section B.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve 16.1%

D=Original Dry Weight of Sample 156.22 g

E=Dry Weight of Sample After Washing/Sieve 131.04 g

$$C = \frac{D-E}{D} \times 100$$

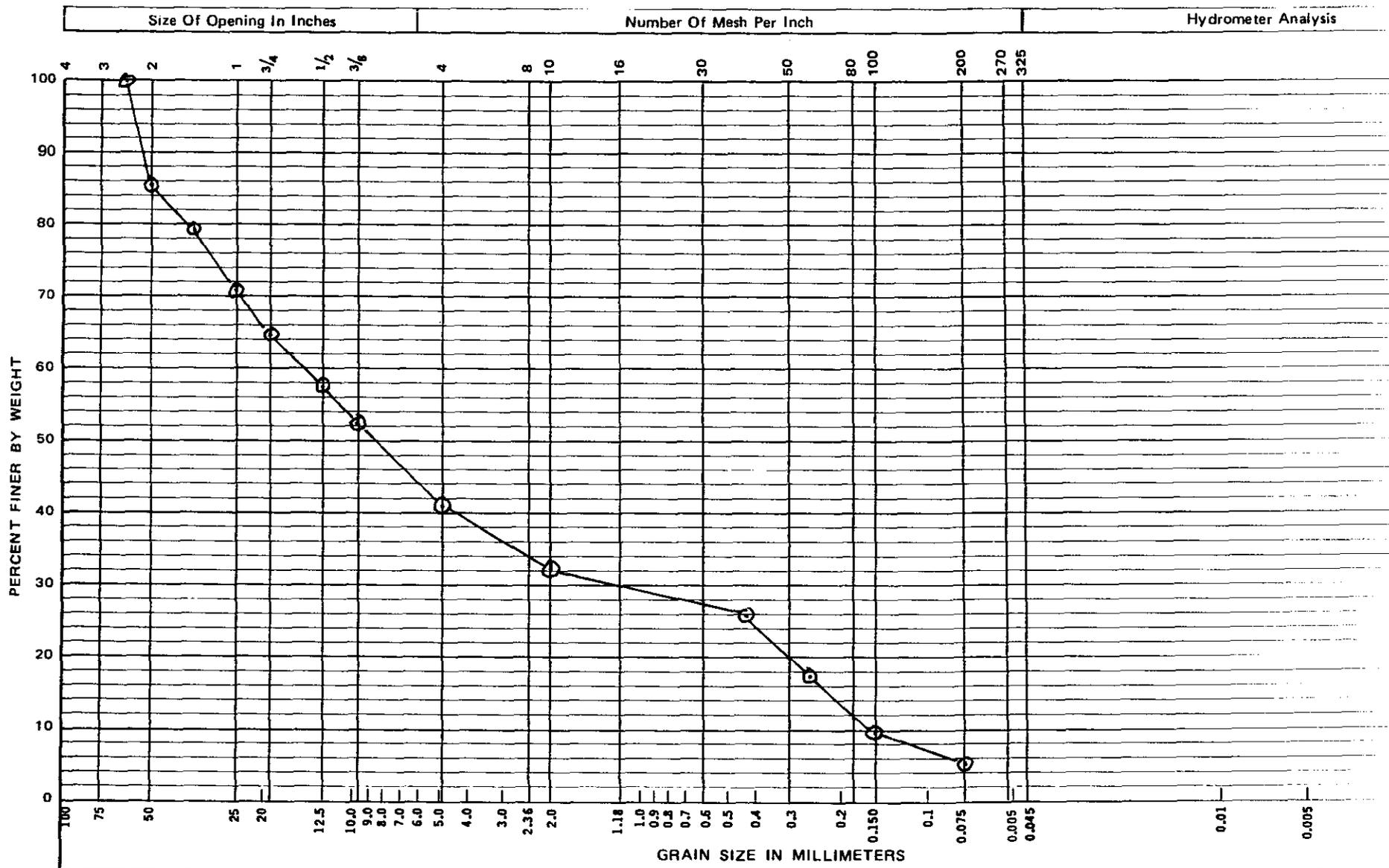
Remarks

WASH FINE GRADING
SMALL FIELD
SAMPLE

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
Checked By H. Benny Date 2-13-90

9 2 1 2 1 1 1 5 2

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-050 Procedure No. ETAL-07 Rev. 1 Date Issued 11-15-89

Sample Description:
SANDY GRAVEL
MW 1-8

Plotted by: R.G. ALEXANDER
Date: 2-5-90

Checked by: HLBenn
Date: 2-13-90

Approved by: NA
Date: _____

Westinhouse Hanford
Company

CHAIN OF CUSTODY

Company Contact Jon Lindberg Telephone 6-5005

Sample Collected by K.M. Singleton Date 1-17-90 Time NA

Sample Locations 1100-EM-1, 1100-1, (Battery Acid Pit.) MW1

Ice Chest No. NA Field Logbook and Page No. WHC-N-306-5

Remarks _____

Bill of Lading No. NA Offsite Property No. NA

Method of Shipment CAR

Shipped to 2101-M Lab

Sample Identification

MW-1-8, plastic bag

MW-1-9 plastic bag

NA
NA

NA

Chain of Possession

Relinquished by: <u>K.M. Singleton</u>	Received by: <u>R.G. Alexander R.G. Nelson</u>	Date/Time: <u>1-25-90/0605</u>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-17-23-90 Time: NA hours

Company Contact Jon Lindberg Telephone () 6-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE *	ANALYSIS REQUESTED
<u>MW-1-8</u>	<u>1, plastic bag</u>	<u>soil</u>	<u>Grain Size</u>
<u>MW-1-9</u>	<u>1, plastic bag</u>	<u>soil</u>	<u>Grain Size, conductivity A. limits</u>

Field Information ** MW-1-9 collected in a stainless steel
jar
1-23-90

Special Handling and/or Storage _____

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

921211055

RADIATION RELEASE

~~MW-1-7~~ Date 01-17-90
Released By [Signature]
Operational Health Physics
Remarks MW-1-8
54-3000-022 (09/88)

RADIATION RELEASE

WELL #1
Bldg. 3000 ARCA Date 1/22/90
Released By [Signature]
Operational Health Physics
Remarks LD P-1-2
MW-1-9
54-3000-022 (09/88)

9212110056

TEST REQUEST FORM

Sample/Specimen No. 0-651 Cost Code/Work Order No. ED 332

Requested By: Org. 80232 Person J. LINDBERG Date 2-5-90

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
<u>SKIVE ANALYSIS</u>	<u>1</u>	<u>ETAL-07</u>
<u>HYDROMETER</u>	<u>1</u>	<u>ETAL-07 (IF REQ)</u>
<u>HYDRAULIC CONDUCTIVITY</u>	<u>1</u>	<u>ETAL-09</u>
<u>ATTERBERG LIMITS</u>	<u>1</u>	<u>ETAL-18</u>

Remarks FIELD SAMPLE
MW-1-9

Received By: R-G ALEXANDER Date 1-25-90

Approved By: R-G ALEXANDER Date 2-6-90

921210057

SIEVE ANALYSIS DATA SHEET

Sample ID 0-051 Page 1 of 1

Tested By R.G. ALEXANDER Date 2-5-90

Procedure ETA-07 Rev 1 Date Issued ^{Revised 2-5-90} 2-11-15-90

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	<u>3204</u>	<u>3-25-90</u>
Thermometer	<u>0006</u>	<u>2-6-90</u>
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Sample Description SILTY SAND Sieve Time 10 (min)

reduced by splitting quartering stockpile

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

Sieve ID Number	Sieve Size	Sample Weight	Cumulative Wt. Retained (g)	% Retained	Cumulative % Retained	Cumulative % Pass	% Pass
<u>N/A</u>							
	#4	<u>161.33</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>100</u>	<u>100</u>
	#10		<u>0.56</u>	<u>0.3</u>	<u>0.3</u>	<u>99.7</u>	<u>99.7</u>
	#40		<u>14.25</u>	<u>8.8</u>	<u>8.8</u>	<u>91.2</u>	<u>91.2</u>
	#60		<u>28.39</u>	<u>17.6</u>	<u>17.6</u>	<u>82.4</u>	<u>82.4</u>
	#100		<u>43.67</u>	<u>27.1</u>	<u>27.1</u>	<u>72.9</u>	<u>72.9</u>
	#200		<u>62.99</u>	<u>39.0</u>	<u>39.0</u>	<u>61.0</u>	<u>61.0</u>

Fines Modules (FM) N/A (See ASTM C 136-B3, Section 3.2)

MATERIALS FINER THAN NO. 200 SIEVE BY WASHING

C=Percentage of Material Passing a 200 Sieve 61.0 %
 D=Original Dry Weight of Sample 161.33 g
 E=Dry Weight of Sample After Washing/Sieve 62.99 g
 $C = \langle (D-E)/D \rangle \times 100$

Remarks
SAMPLE IN 4" X 6"
STEEL TUBE
WASH FINE GRADING

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS
 Checked By HL Berry Date 2-13-90

9212110058

HYDROMETER ANALYSIS DATA SHEET

Sample ID 0-051

Page 1 of 1

Tested By R.G. ALEXANDER Date 4-3-90
 Procedure ETAL-07 Rev 1 Date Issued 11-15-90

EQUIPMENT ITEM	NO.	CALIBRATION DUE DATE
Hydrometer	1000	2-16-91
Balance	3304	6-25-90
Thermometer/Thermocouple	0002	2-9-91

Specific gravity of Sample 2.66

% Passing No. 10 Sieve 99.7 (%)

Hygroscopic Correction Factor N/A

HYGROSCOPIC MOISTURE CONTENT

Wt. Container + Air Dry Soil 133.11 (g)

Wt. Container + Oven Dry Soil 123.74 (g)

Wt. Container 93.52 (g)

Water Content 31.01 (%)

WEIGHT OF SAMPLE

Wt. Container + Soil N/A (g)

Wt. Container N/A (g)

Wt. Soil 57.71 (g)

REMARKS

w = 57.86

COMPOSITE CORRECTION

1st Reading 4 at 24.3 °C

2nd Reading N/A at N/A °C

Date	Clock time	Elapsed time (min)	Hydrometer reading	Hydrometer with composite correction	Temp. (°C)	Soil in suspension (%)	Particle diameter (mm)
4-3	0725	2.0	31	27	24.4	46.6	.032
4-3	0728	5.0	27	23	24.4	39.7 40.0	.021
4-3	0738	15.0	22	18	24.5	31.1	.012
4-3	0753	30.0	18	14	24.4	24.2	.009
4-3	0823	60.0	15	11	24.2	19.0	.006
4-3	1133	250.00	10	6	23.9	10.4	.003
4-4	0723	1,440.0	6	2	23.4	3.5	.001

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 L. B. Bruggeman Date 4/4/90

SPECIFIC GRAVITY OF SOILS DATA SHEET

Specimen/Sample No. 0-051 Page 1 of 1

Test Operator <u>R.G. ALEXANDER</u>		
<u>EQUIPMENT ITEM</u>	<u>NO.</u>	<u>DATE DUE</u>
Balance	<u>3304</u>	<u>6-25-90</u>
Oven Thermometer	<u>0007</u>	<u>8-16-90</u>
Thermometer	<u>0002</u>	<u>2-9-91</u>
Pycnometer	<u>2554</u>	<u>N/A</u>

Wetting Agent "D" WATER

DETERMINATION NO.		1	2	3
	Drying Container No.	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
	Wt. Container + Oven Dry Soil, ± 0.01g	<u>N/A</u>	<u>---</u>	<u>---</u>
	Wt. Container, ± 0.01g	<u>N/A</u>	<u>---</u>	<u>---</u>
W_o	Wt. Oven Dry Soil, g	<u>40.00</u>	<u>---</u>	<u>---</u>
	Pycnometer No.	<u>2554</u>	<u>---</u>	<u>---</u>
	Wt. Pycnometer, g	<u>135.72</u>	<u>---</u>	<u>---</u>
W_a	Wt. Pycnometer + Wetting Agent, g	<u>387.10</u>	<u>---</u>	<u>---</u>
W_b	Wt. Pycnometer + Wetting Agent + Soil, g	<u>412.02</u>	<u>---</u>	<u>---</u>
	Temperature, T_x at W_b , °C	<u>24.0 C</u>	<u>---</u>	<u>---</u>
G_w	Specific Gravity of Wetting Agent at T_x	<u>1.00</u>	<u>---</u>	<u>---</u>
G_t	Specific Gravity of Soil at T_x	<u>2.66</u>	<u>---</u>	<u>---</u>
G_s	Specific Gravity of Soil at 20°C	<u>2.66</u>	<u>---</u>	<u>---</u>

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

Y_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	<u>2.66</u>
----------------------------------	-------------

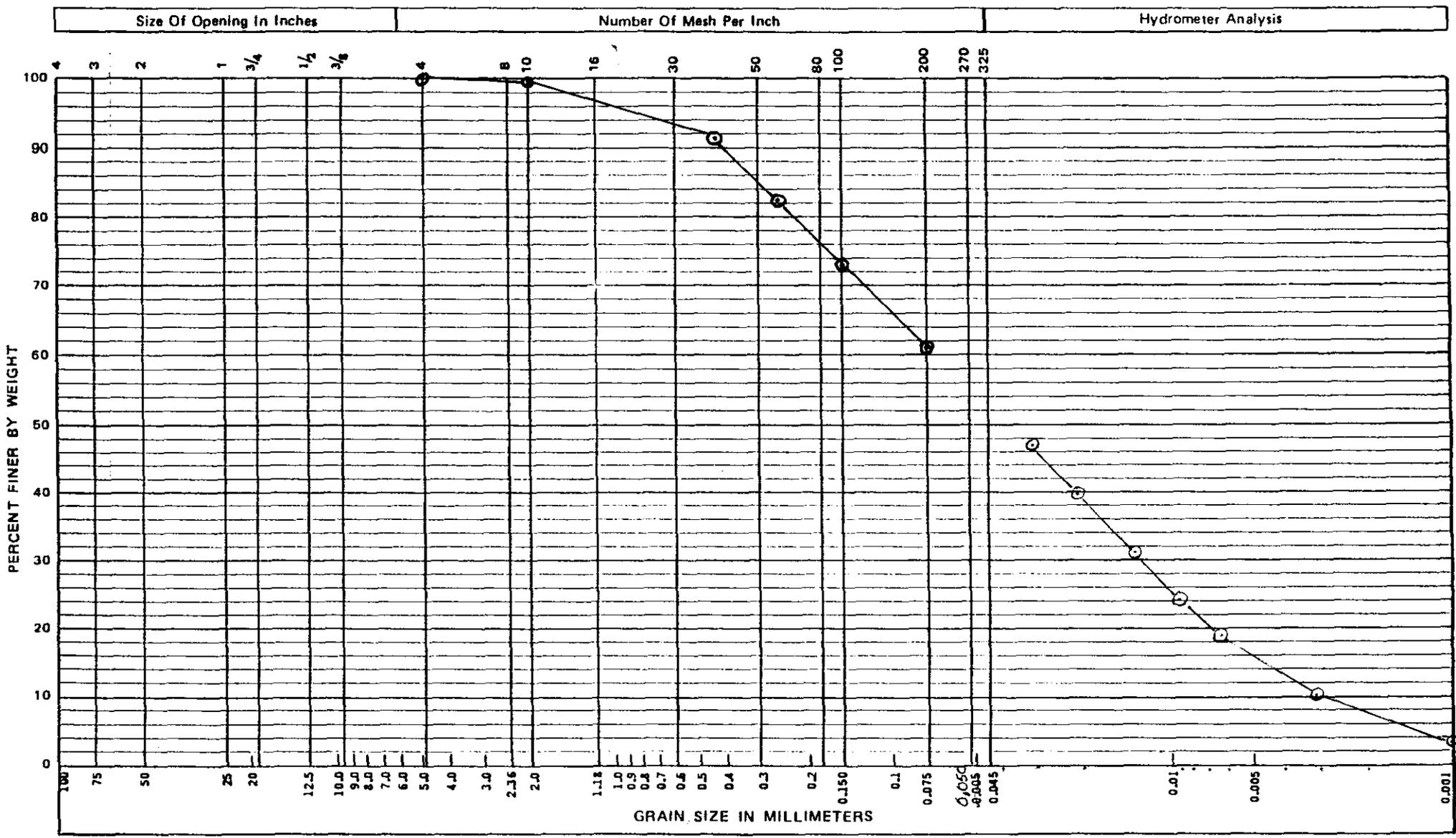
ALL REQUIRED DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED CALIBRATED TEST INSTRUMENTS AS INDICATED ABOVE. APPROVED TEST PROCEDURES WERE FOLLOWED TO PRODUCE THE ABOVE DATA.

Checked By L. R. Bruggeman Date 1/2/90

9212110060

9 2 1 2 1 1 1 0 2 5 1

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-051 Procedure No ETAL-07 Rev. 1 Date Issued 11-15-89

<p>Sample Description: <u>SILTY SAND</u> <u>MW-1-9</u></p>	<p>Plotted by: <u>RG ALEXANDER</u> Date: <u>12-5-89</u> <u>ALX 27540</u> <u>11-5-90</u></p>	<p>Checked by: <u>HL Benn</u> Date: <u>2-13-90</u></p>
--	---	--

PLASTIC INDEX SOILS DATA SHEET

Sample No. 0-051

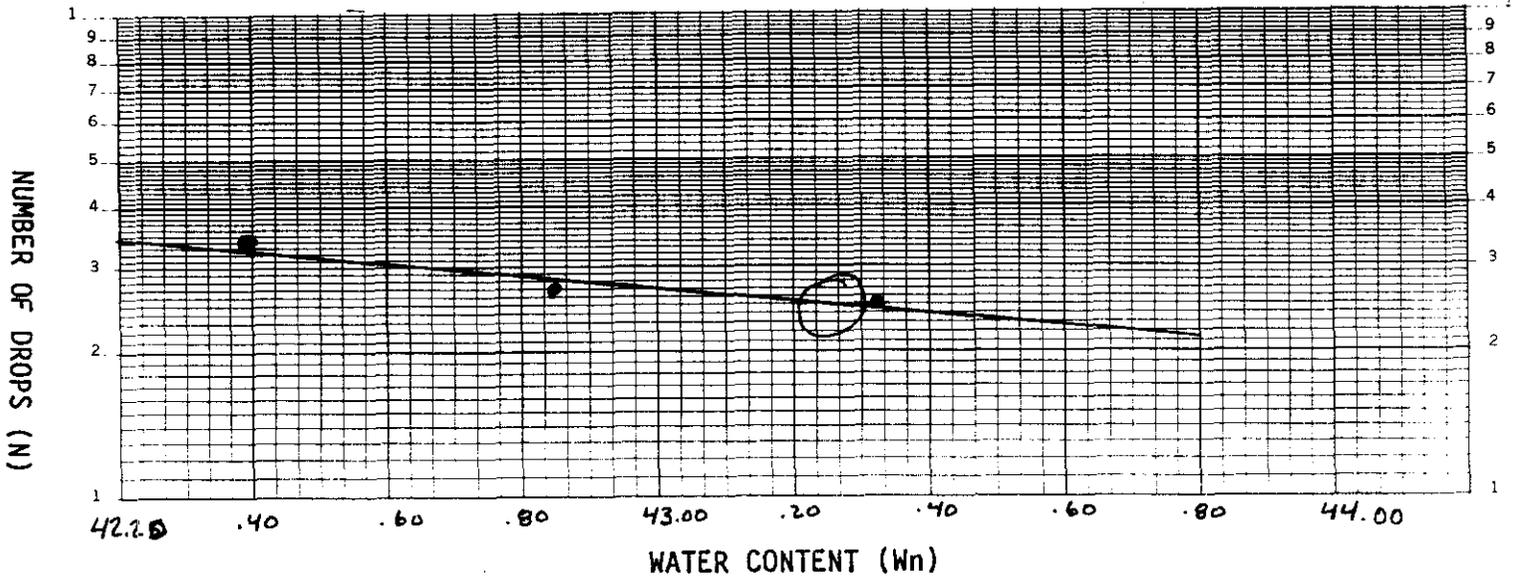
Page 1 of 2

Test Operator HC Benny

Date 4/10/90

Thermometer No. 0007

Calibration Date 2/18/90



Liquid Limit (LL) 43.28 Graph

Plastic Limit (PL) 35.54 (Avg.)

Liquid Limit (LL) NA One Point

Moisture (PL) 35.93% 36.23% 34.46%

Moisture (LL) 43.28%

Plastic Index (PI)* 7.74

*PI = LL - PL

Remarks _____

ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. LRB 4/14/90
 THE TEST OPERATOR WAS APPROPRIATELY TRAINED AND UTILIZED
 CALIBRATED TEST INSTRUMENTS. APPROVED TEST PROCEDURES WERE
 FOLLOWED TO PRODUCE THIS DATA.

9210110053

HYDRAULIC CONDUCTIVITY OF SOILS DATA SHEET

Sample No. 0-051

Page 1 of 5

Test Operator	<u>R.G. ALEXANDER</u>	Date	<u>2-5-90</u>
<u>EQUIPMENT ITEM</u>	<u>NO.</u>	<u>DATE DUE</u>	
Balance	<u>3304</u>	<u>3-25-90</u>	
Oven Thermometer	<u>0006</u>	<u>2-6-90</u>	
Thermometer	<u>N/A</u>	<u>N/A</u>	
Thermocouple			
Temperature Controller			
Pressure Gauge			
Pressure Transducer			
Pressure Transducer			
Back Pressure Gauge			
Pressure Transducer			
Pressure Transducer			
Calipers	<u>5623</u>	<u>8-16-90</u>	
Load Frame	<u>N/A</u>	<u>N/A</u>	
Data Logger			
<u>N/A</u>			
<u>N/A</u>			
<u>N/A</u>			

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

Sample Preparation

PARTICLE SIZE
(Sieve Mesh Range)

<u>N/A</u>	To	<u>N/A</u>
	To	

WEIGHT

<u>N/A</u>	%
	%
	%
	%
	%
	%
	%
	%
	%
Total	100 %

OTHER COMPONENTS

<u>N/A</u>

<u>N/A</u>	%
	%
	%
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 H. Benny Date 2-13-90

9212110055

SAMPLE PREPARATION

Determine Weight of Samples in Container

Container No.	#5
Wt. of Sample + Container, g	5385.81
Wt. of Container, g	584.72
Wt. of Sample, g	4801.09

Determine the Water Content of the "Air Dry" Sample

Container No.	#5
Wt. Container & Wet Soil (A), g	5385.81
Wt. Container & Dry Soil (B), g	5011.07
Wt. of Water, g	374.74
Wt. of Container (C), g	584.72
Wt. of Dry Soil, W _s , g	4426.35
Water Content (W), %	8.47

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

SAMPLE COMPONENT	SPECIFIC GRAVITY, G	LABORATORY NOTEBOOK DATA LOCATION
N/A	N/A	N/A
N/A	N/A	N/A
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 Benny Date 2-13-90

9212110066



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector: K.M. Singleton Date Sampled: 1-17, 23-90 Time: NA hours

Company Contact Jan Lindberg Telephone () 6-5005

SAMPLE NUMBER	NUMBER & TYPE OF SAMPLE CONTAINERS	TYPE OF SAMPLE*	ANALYSIS REQUESTED
<u>MW-1-B</u>	<u>1, plastic bag</u>	<u>soil</u>	<u>Grain Size</u>
<u>MW-1-9</u>	<u>1, plastic bag</u>	<u>soil</u>	<u>Grain Size, conductivity, A. limits</u>

Field Information ** MW-1-9 collected in a stainless steel
debris
1-23-90

Special Handling and/or Storage _____

PART II: LABORATORY SECTION

Received by _____ Title _____ Date _____

Analysis Required _____

* Indicate Whether Sample is Soil, Sludge, Water, Etc.
** Use Back of Page for Additional Information Relative to Sample Location.

9212100171

RADIATION RELEASE

Released By MW-13 Date 01-17-90
Boyd
 Operational Health Physics
 Remarks MW-1-8
 54-3000-022 (09/88)

RADIATION RELEASE

Bidg. WELL #1 Date 1/22/90
3000 ARCA
 Released By WESS
 Operational Health Physics
 Remarks LD P-8! d
MW-1-9
 54-3000-022 (09/88)

9212110072