

TEST REQUEST FORM

Sample/Specimen No. 0-125 Cost Code/Work Order No. ED332

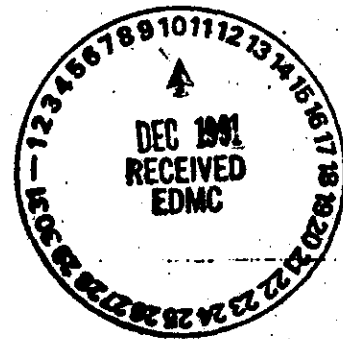
Requested By: Org. 81232 Person J. Lindberg Date 3-12-90

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
<u>Sieve Anal</u>	<u>1</u>	<u>ETAL 07</u>
<u>Hydro</u>	<u>1</u>	<u>ETAL 07</u>
<u>SpG</u>	<u>1</u>	<u>ETAL 10</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>

Remarks Field Sample
1100-3-F-B

Received By: RG Alexander Date 3-9-90

Approved By: RG Alexander Date 3-9-90



92121152

SIEVE ANALYSIS DATA SHEET

Sample ID 0-125 Page 1 of 1

Tested By RG ALEXANDER Date 3-13-90

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

EQUIPMENT ITEM	CALIBRATION NO.	DATE DUE
Balance	3304	3-25-90
Thermometer	0007	3-16-90
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	2	5221.90	415.61	8.0	8.0	92.0	92.0
	1/2		821.66	15.7	15.7	84.3	84.3
	1		1442.29	27.6	27.6	72.4	72.4
	3/4		1856.62	35.6	35.6	64.4	64.4
	1/2		2435.46	46.6	46.6	53.4	53.4
	3/8		2679.84	51.3	51.3	48.7	48.7
	#4		3023.17	57.9	57.9	42.1	42.1
	#10		3310.29	63.4	63.4	36.6	36.6
	#40	110.40	52.42	47.5	47.5	52.5	19.2
	#60		71.00	64.3	64.3	35.7	13.1
	#100		79.77	72.3	72.3	27.7	10.1
	#200		87.50	79.3	79.3	20.7	7.6

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 20.7%

D=Original Dry Weight of Sample 110.40 g

E=Dry Weight of Sample After Washing/Sieve 87.50 g

$C = \langle (D-E)/D \rangle \times 100$

Remarks

SMALL FIELD SAMPLE

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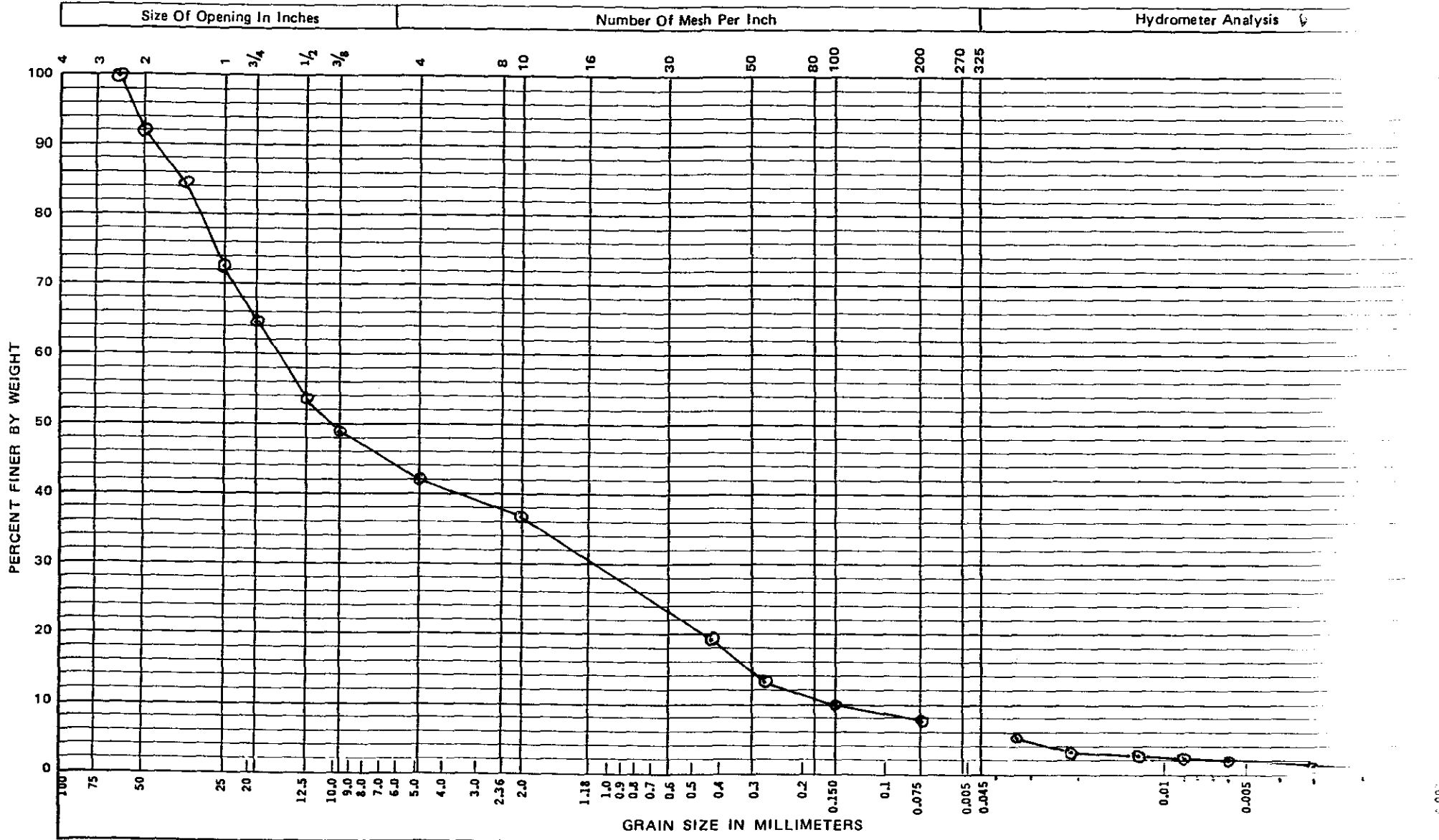
ALL DATA ARE ACCURATELY AND COMPLETELY RECORDED. THE TEST OPERATOR WAS TRAINED AND USED CALIBRATED INSTRUMENTS

Checked By HL Benny Date 3-14-90

9 2 1 2 1 1 1 0 6 3

9 2 1 2 1 1 0 6 4

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-125 Procedure No. ETAL-67 Rev. 1 Date Issued 11-5-90

Sample Description: SANDY GRAVEL
1100-3-F-B

Plotted by: R.G ALEXANDER
Date: 3-13-90

Checked by: HL Benny
Date: 3-14-90

SPECIFIC GRAVITY OF SOILS DATA SHEET

Specimen/Sample No. 0-125 Page 1 of 1

Test Operator <u>R.G. ALEXANDER</u>	<u>3-13-90</u>
<u>EQUIPMENT ITEM</u>	<u>NO.</u>
<u>Balance</u>	<u>3304</u>
<u>Oven Thermometer</u>	<u>0007</u>
<u>Thermometer</u>	<u>0002</u>
<u>Pycnometer</u>	<u>2554</u>
	<u>DATE DUE</u>
	<u>3-25-90</u>
	<u>8-16-90</u>
	<u>2-9-91</u>
	<u>N/A</u>

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	387.09	---	---
W _b	Wt. Pycnometer + Wetting Agent + Soil, g	412.63	---	---
	Temperature, T _x at W _b , °C	24.40		
G _w	Specific Gravity of Wetting Agent at T _x	1.00	---	---
G _t	Specific Gravity of Soil at T _x	2.11	---	---
G _s	Specific Gravity of Soil at 20°C	2.16	---	---

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

Y_w = Unit Weight Of Water (g/cc)

*G_s = K · 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>2.16</u>
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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 Benm Date 3-14-90

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HYDROMETER ANALYSIS DATA SHEET

Sample ID 0-125

Page 1 of 1

Tested By HLBenny Date 3-13-90
 Procedure ETAL 07 Rev 1 Date Issued 11/15/90

EQUIPMENT ITEM	NO.	CALIBRATION DUE DATE
Hydrometer	^{HLB} 3-12-90 <u>71000</u>	<u>2-16-91</u>
Balance	<u>3304</u>	<u>3-25-90</u>
Thermometer/Thermocouple	<u>0002</u>	<u>2-9-91</u>

Specific gravity of Sample 2.76

% Passing No. 10 Sieve 36.6 (%)

Hygroscopic Correction Factor ∅

HYGROSCOPIC MOISTURE CONTENT

Wt. Container + Air Dry Soil NA (g)

Wt. Container + Oven Dry Soil NA (g)

Wt. Container NA (g)

Water Content NA (%)

WEIGHT OF SAMPLE

Wt. Container + Soil NA (g)

Wt. Container NA (g)

Wt. Soil 110.40 (g)

REMARKS

Tube X

COMPOSITE CORRECTION

1st Reading 5 at 23.2 °C

2nd Reading NA at NA °C

W = 301.64

Date	Clock time	Elapsed time (min)	Hydrometer reading	Hydrometer with composite correction	Temp. (°C)	Soil in suspension (%)	Particle diameter (mm)
3-13-90	0757	2.0	20	15	24.0	4.9	0.033
	0800	5.0	15	10	24.0	3.2	0.022
	0810	15.0	13	8	23.9	2.6	0.013
	0825	30.0	12	7	23.6	2.3	0.009
	0855	60.0	11	6	23.3	1.9	0.006
✓	0910 12.05	250.00	109 ^{HLB} ₃₋₁₃₋₉₀	4 ^{HLB} ₃₋₁₃₋₉₀	23.2	1.3	0.003
3-14-90	0755	1,440.0	7	2	23.6	0.6	0.001

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 R.G. Alexander Date 3-14-90

921211067



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector JW Lindberg & Steve Clark

Date Sampled 3-9-90 Time ^{10:00 AM} 12:00 hours

Company Contact JW Lindberg

Telephone (509) 376-5005

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
HRL-H-2	1 plastic bag set	soil	ASTM-D-422 Grain Size Analysis
HRL-D-4	"	"	"
HRL-C-1	"	"	"
HRL-M-4	"	"	"
HRL-R-7	"	"	"
HRL-T-6-AA-172	"	"	"
1100-3-E-5	"	"	"
1100-3-F-8	"	"	"
1100-3-H-5	"	"	"
1100-3-H-8	"	"	"
1100-2-D-3	"	"	"
1100-2-F-4	"	"	"
1100-2-H-1	"	"	"
1100-2-HH-1	"	"	"

9 2 1 2 1 1 7 6 8

Field Information** Run hydrometer on all samples listed hereon

Special Handling and/or Storage NA

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.



Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: JW Lindberg Telephone 6-5005

Sample Collected by: JW Lindberg Date: 3-9-90 Time: 10:35-11:15 AM

Sample Locations: 1100-3 pit

Ice Chest No.: NA Field Logbook & Page No.: WHC-N-306, p.68

Remarks: EI-5.2 with steel spade

Bill of Lading No.: NA Off Site Property No.: NA

Method of Shipment: Hand Carry

Shipped to: Jerry Alexander 2104M Bldg Soil Testing Lab

Sample Identification	Sample Identification
<u>1100-3-E-5 ^{Surface} Soil Sample</u>	<u>Plastic Bags sealed with duct tape</u>
<u>1100-3-F-8 Surface Soil Sample</u>	<u>" " " " " "</u>
<u>1100-3-H-5 Surface Soil Sample</u>	<u>" " " " " "</u>
<u>1100-3-H-8 Surface Soil Sample</u>	<u>" " " " " "</u>

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
<u>JW Lindberg JW Lindberg</u>	<u>R.G. Alexander R.G. ALEXANDER</u>	<u>3-9-90 / 1:30</u>
Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

Relinquished by:	Received by:	Date/Time:

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CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-H-2
outside surfaces of
plastic bag → <D B; X / <D
Direct / smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-D-4
outside surfaces of
plastic bag → <D B; X / <D
Direct & smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-C-1
outside surfaces of plastic
bag → <D B; X / <D
Direct / smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-M-4
outside surfaces of plastic
bag → <D B; X / <D
smear & Direct

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-R-7
outside surfaces of
plastic bag → <D B; X / <D
Direct / smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-T-6-AH-12
outside surfaces of
plastic bag → <D B; X / <D
Direct & smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-3-E-5
outside surfaces of
plastic bag → <D B; X / <D
Direct & smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-3-F-8
→ outside surfaces of
plastic bag → <D B; X / <D
smear & Direct

Date: A.M. By: 3-9-90

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-3-H-5
→ outside surfaces
of plastic → <D B; X / <D
covering Direct / smear

Date: 3-9-90 By: A.P. Mitzel

Radiation Monitoring
BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: Sample # 1100-3-H-8
outside surfaces of plastic
bag → <D B; X / <D
Direct / smear

Date: 3-9-90 By: A.M.

Radiation Monitoring
BL-6700-133 (10-77)

0
7
1
9
2
1
2