0017732

TEST REQUEST FORM

Sample/Specimen No: 0-123 Cost Code/Work Order No. ED-332

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

Test Requested	No. of Samples	Test Lab Information (Instruction Used)
Sieve Anal	1	ETAL-07
Hydro	1	ETAL-07
Sp G	1	ETAL-10
NA	NA	NA

Remarks Field Sample HRL-T-6-AH-172

Received By: RG Alexander Date 3-9-90

Approved By: RG Alexander Date 3-9-90

DEC 1991 RECEIVED EDMC

9212110108

SIEVE ANALYSIS DATA SHEET

Sample ID 0-123 Page ____ of ____

Tested By R.G. 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	8-16-90
N/A	N/A	N/A

Sample Description BLACK SILT 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							
	#10	52.93	Ø	Ø	Ø	100	100
	#40		3.40	6.4	6.4	93.6	93.6
	#60		6.57	12.4	12.4	87.6	87.6
	#100		9.98	18.9	18.9	RLA 3-14-90 81.1 ~~80~~	81.1
	#200		17.22	32.5	32.5	67.5	67.5

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 67.5 %

D=Original Dry Weight of Sample 52.93 g

E=Dry Weight of Sample After Washing/Sieve 17.22 g

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

Remarks Pan 27

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

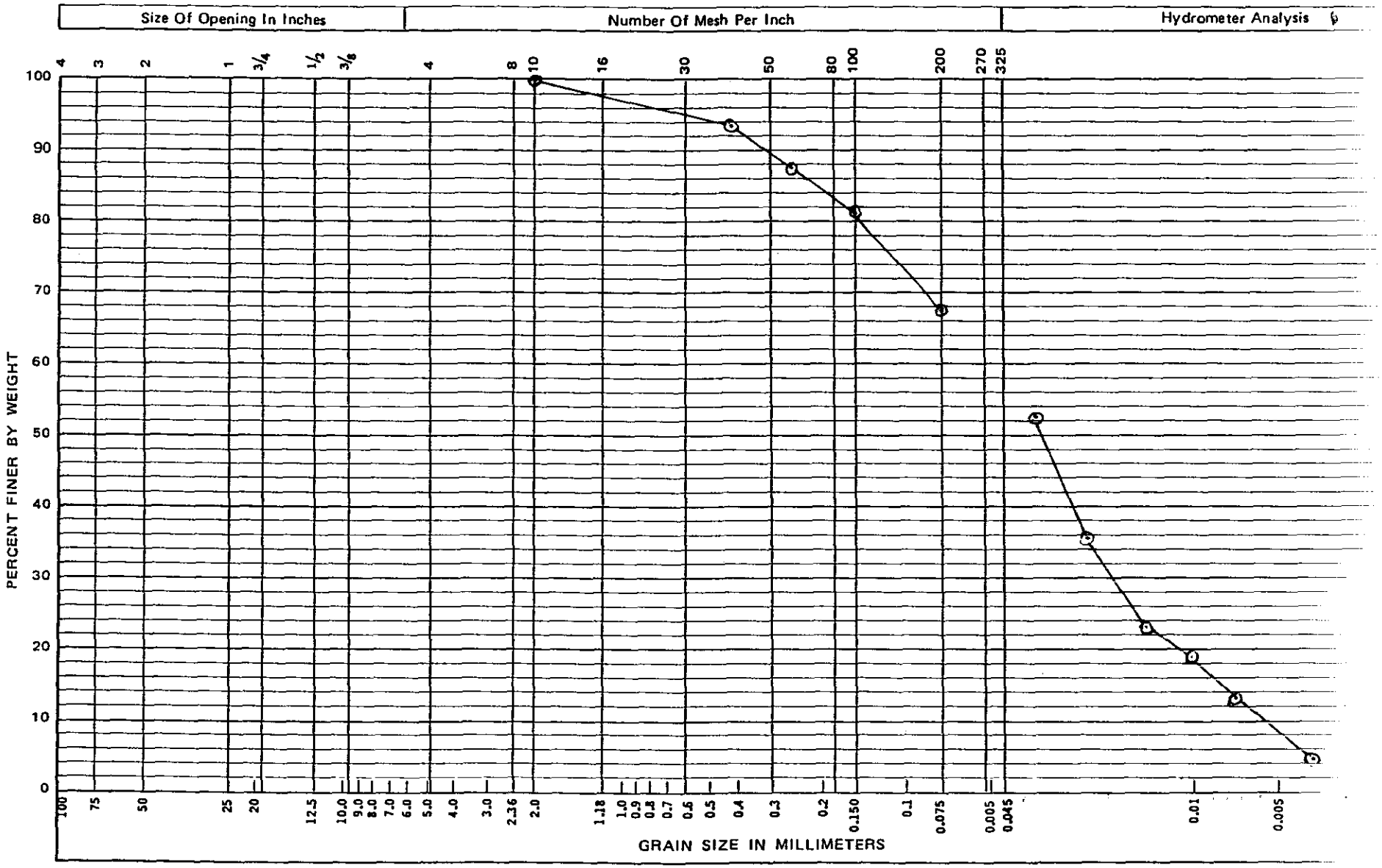
Checked By HLBenny Date 3-14-90

A-6400-204(2-87)

9 2 1 2 1 1 1 0 9

9 2 1 2 1 1 1 1 0

GRAIN SIZE ANALYSIS PLOT



Specimen No. 0-Ø123 HCB 3-12-90 Procedure No. ETAL-07 Rev. 1 Date Issued 11/15/89

Sample Description: BLACK SILT HRL-T-6-AH-172	Plotted by: R.G ALEXANDER Date: 3-14-90	Checked by: HC Benny Date: 3-14-90

SOIL MOISTURE DATA SHEET

PROCEDURE NO. ETAL-14 REV. NO. Ø

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

SAMPLE NO.	WET WT. + CAN	DRY WT. + CAN	CAN WT.	WET WT. SOIL	DRY WT. SOIL	% WATER
0-123	1419.41	1238.30	116.16	1303.25	1122.14	16.14

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 3-18-90

9212111111

SPECIFIC GRAVITY OF SOILS DATA SHEET

Specimen/Sample No. 0-123 Page 1 of 1

Test Operator R.G. ALEXANDER 3-13-90

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	409 .78	.__	.__
	Temperature, T_x at W_b, °C	23.2 C	.	.
G_w	Specific Gravity of Wetting Agent at T_x	1.00	_.__	_.__
G_t	Specific Gravity of Soil at T_x	2.31	_.__	_.__
G_s	Specific Gravity of Soil at 20°C	2.30	_.__	_.__

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

γ_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	2.30

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 3-13-90

A-6400-235 (9-86)

9 2 1 2 1 1 1 1 2

HYDROMETER ANALYSIS DATA SHEET

Sample ID 0-123 Page 1 of 1

Tested By HL Benny Date 3-13-90

Procedure ETAL 07 Rev 1 Date Issued 11-15-90

EQUIPMENT ITEM	NO.	CALIBRATION DUE DATE
Hydrometer	1000	2-16-91
Balance	3304	3-25-90
Thermometer/Thermocouple	~~200~~ 0002 HLB 3-~~22~~-90	2-9-91

Specific gravity of Sample 2.30

% Passing No. 10 Sieve 100 (%)

Hygroscopic Correction Factor Ø

WEIGHT OF SAMPLE

Wt. Container + Soil NA (g)

Wt. Container NA (g)

Wt. Soil 52.93 (g)

COMPOSITE CORRECTION

1st Reading 5 at 23.2 °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 F

Pan 27

W = 52.93

Assume "a" = 1.11, K = 0.01447

Date	Clock time	Elapsed time (min)	Hydrometer reading	Hydrometer with composite correction	Temp. (°C)	Soil in suspension (%)	Particle diameter (mm)
3-13-90	0557	2.0	30	25	24.5	52.4	0.035
	0600	5.0	22	17	24.1	35.7	0.023
	0610	15.0	16	11	23.8	23.1	0.014
	0625	30.0	14	9	23.9	18.9	0.010
	0655	60.0	11	6	23.1	12.6	0.007
	1005	250.00	7	2	23.2	4.2	0.004
3-14-90	0555	1,440.0	5	Ø	23.4	Ø	NA

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 (1.87)

9212113

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector JW Lindberg & Steve Clark Date Sampled 3-9-90 Time 10:00AM 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-AH-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	"	"	"

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.

A-6000-406 (07/89)

9211114

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Company Contact: J.W. Lindberg Telephone 6-5005

Sample Collected by: JW Lindberg & Steve Clark Date: March 9 Time: 10:00-10:30 AM

Sample Locations: Horn Rapids Landfill, Sample #s refer to grid nodes

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

Remarks: Procedure EII-5.2 Soil Sampling was used, standard steel spade was used to collect soil at depth of 0 to 0.3 ft.

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

Method of Shipment: Hand carry

Shipped to: Jerry Alexander 2101-M Soil Testing Lab

Sample Identification

HRL-H2-Surface Soil Sample	plastic bags, green duct tape label
HRL-D4-Surface Soil Sample	" " " " " "
HRL-C1-Surface Soil Sample	" " " " " "
HRL-M-4-Surface Soil Sample	" " " " " "
HRL-R-7-Surface Soil Sample	" " " " " "
HRL-T-6-AH-172 Surface Soil sample	" " " " " "

CHAIN OF POSSESSION

Relinquished by:	Received by:	Date/Time:
JW Lindberg JW Lindberg	R.G. Alexander R.G. ALEXANDER	3-9-90 /1300
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

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9212115

CONDITIONAL RADIATION RELEASE

Instructions: Sample # HRL-H-2 outside surfaces of plastic bag → <D B-,γ/<D α Direct / Smear

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

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

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

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

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

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

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: SAmple # HRL-R-7 outside surfaces of plastic bag → <D B-,γ/<D α Direct / Smear

Date: 3-9-90 By: S.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-,γ/<D α Direct & smear

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

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

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)

CONDITIONAL RADIATION RELEASE

Instructions: SAmple # 1100-3-F-8 → outside surfaces of plastic bag → <D B-,γ/<D α smear & Direct

Date: S.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 covering → <D B-,γ/<D α Direct / smear

Date: 3-9-90 By: S. 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-,γ/<D α Direct / smear

Date: 3-9-90 By: S.M.
Radiation Monitoring

BL-6700-133 (10-77)