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February 2014

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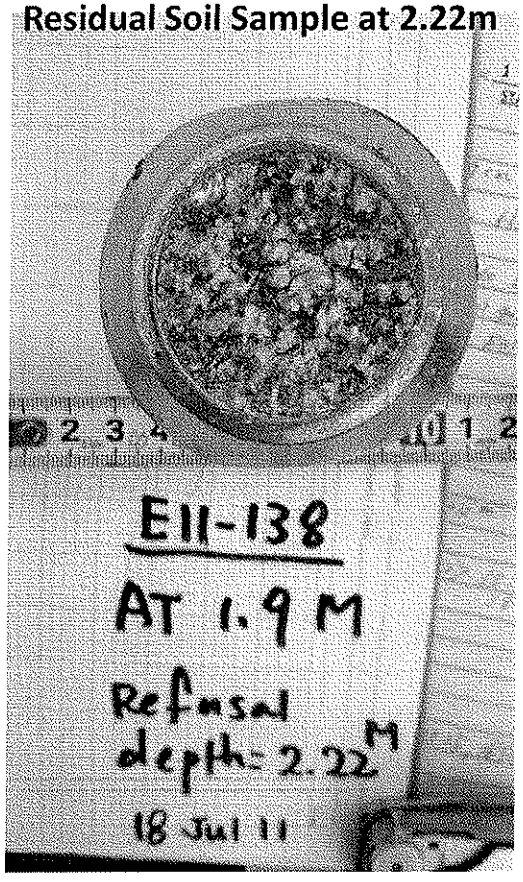
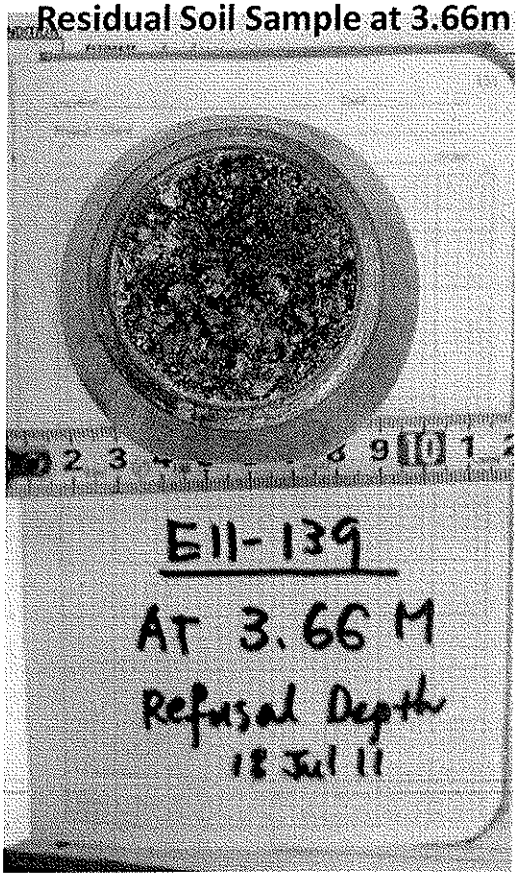
Borehole E11-138

Residual Soil Sample at 2.22m



Borehole E11-139

Residual Soil Sample at 3.66m

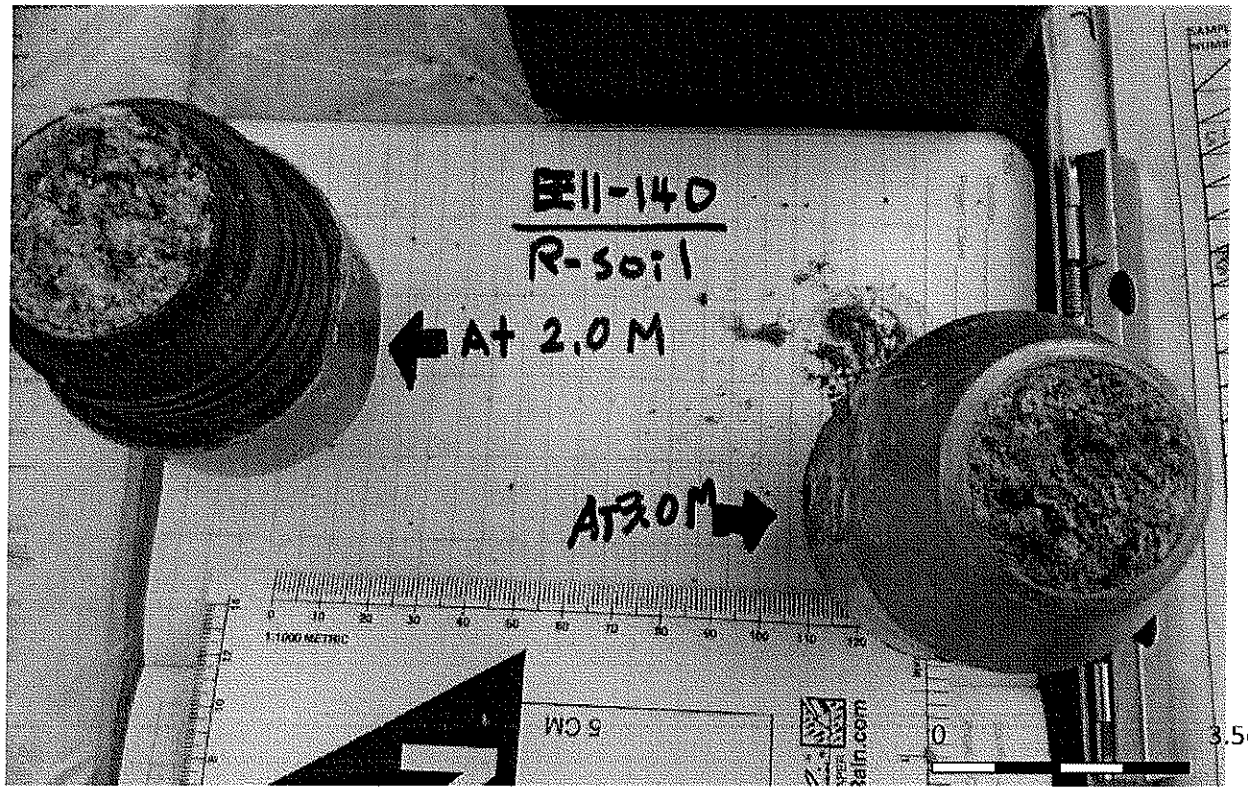


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase I Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Jul 2011**	Plate 5

3201

Borehole E11-140

Residual Soil Samples at 2.0m and 3.0m

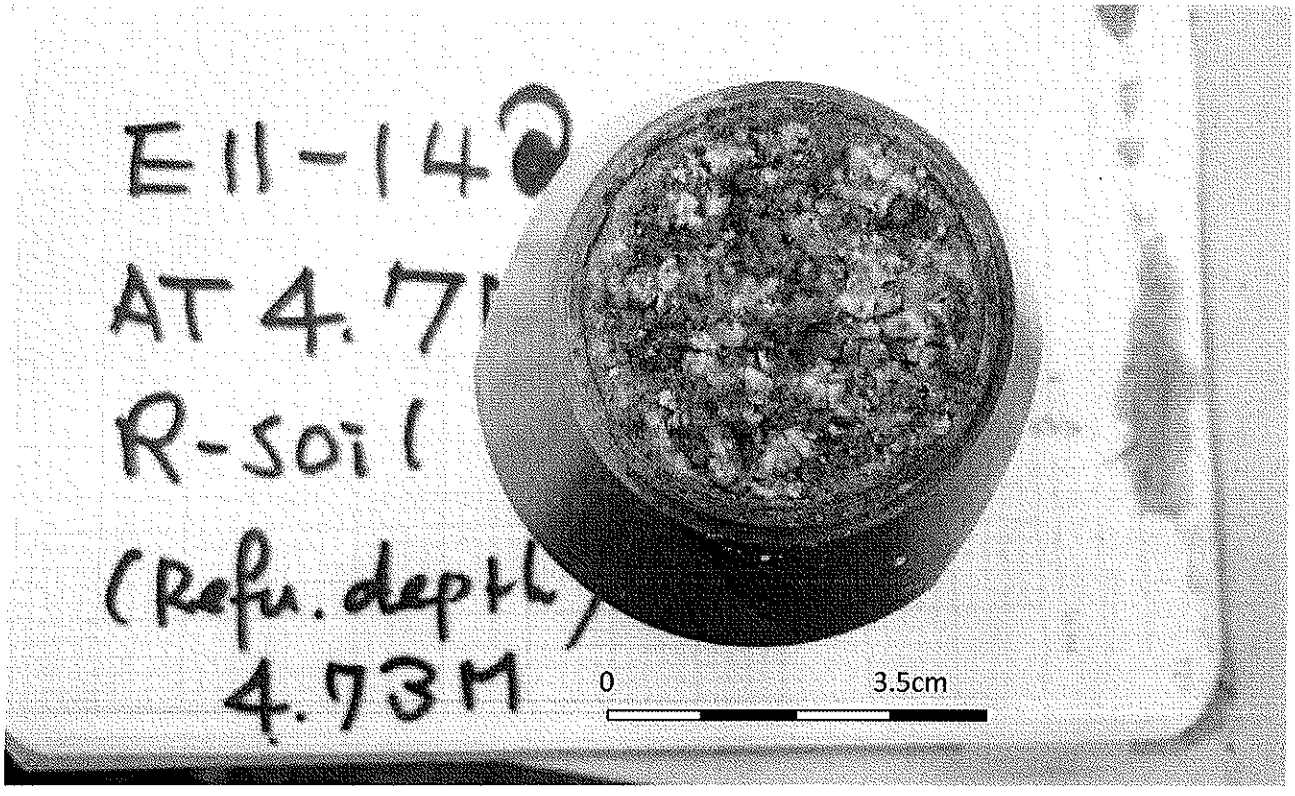


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase I Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Jul 2011**	Plate 6

3202

Borehole E11-142

Residual Soil Sample at 4.7m

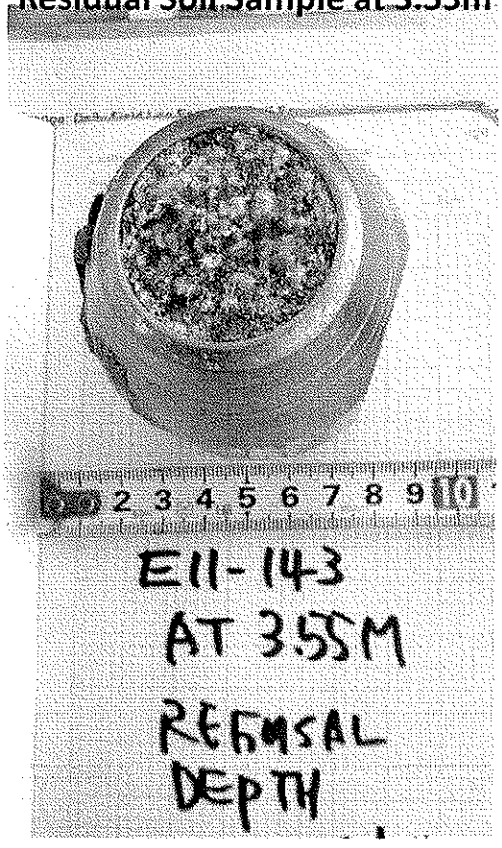


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase I Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Jul 2011**	Plate 7

3203

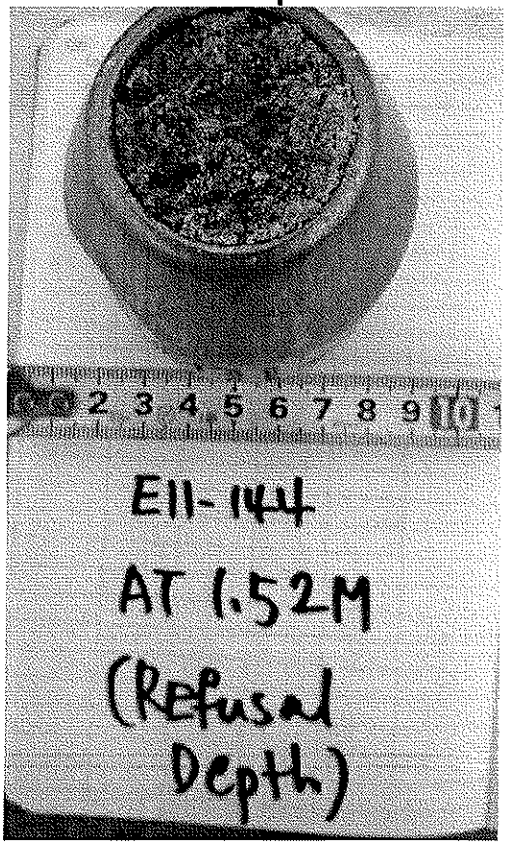
Borehole E11-143

Residual Soil Sample at 3.55m



Borehole E11-144

Residual Soil Sample at 1.52m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase I Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Jul 2011**	Plate 8

3204

Borehole E11-147

Residual Soil Sample at 1.97m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase I Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Jul 2011**	Plate 9

3205

Photographs of Phase II Site Soil Sampling
Camp Carroll, G&EE 11-032E

RESIDUAL SOILS

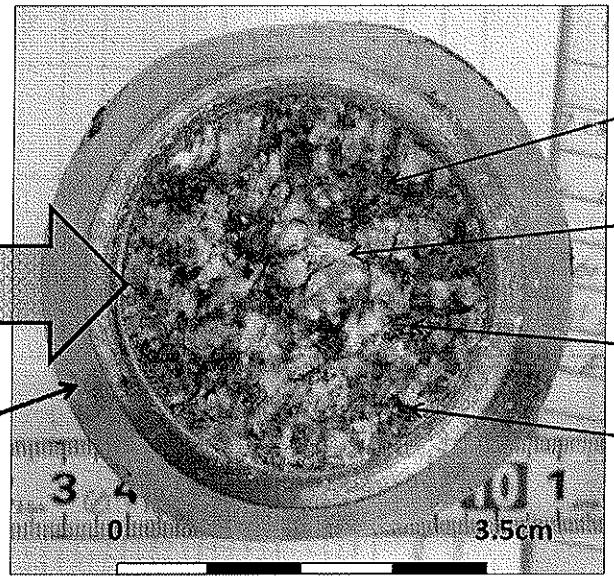
Residual soils are defined as the deposits formed by in-place weathering of rock (Glossary of Geology, 4th Ed. Bates & Jackson, AGI).

Residual soils are originated from underlying GRANITE bedrock by weathering process and show granite rock texture.

The collected residual soil samples consist of typical minerals of granite rock and its residual soils. The constituent minerals are quartz, feldspar, biotite, hornblende and clay minerals as weathering products.

"Granite Texture"

Light brown to brown; Fine to coarse-grained Granite texture



3.5cm ID sampler shoe of direct push sampling system (Model: BEC50PM-1 & 2)

Minerals:

- Quartz (gray)
- Feldspar (white)
- Biotite (brown)
- Hornblende (green)

3206

ALLUVIAL SOILS (ALLUVIUM)

Alluvial soil (Alluvium) is defined as a general term for clay, silt, sand, gravel, or similar unconsolidated detrital material, deposited during comparatively recent geologic time by a stream or other body of running water, as a sorted or semisorted sediment in the bed of the stream or on its flood plain or delta, as a cone of fan at the base of a mountain slope; especially such a deposit of fine-grained texture (silt or silty clay) deposited during time of flood. (Glossary of Geology, 4th Ed. Bates & Jackson, AGI).

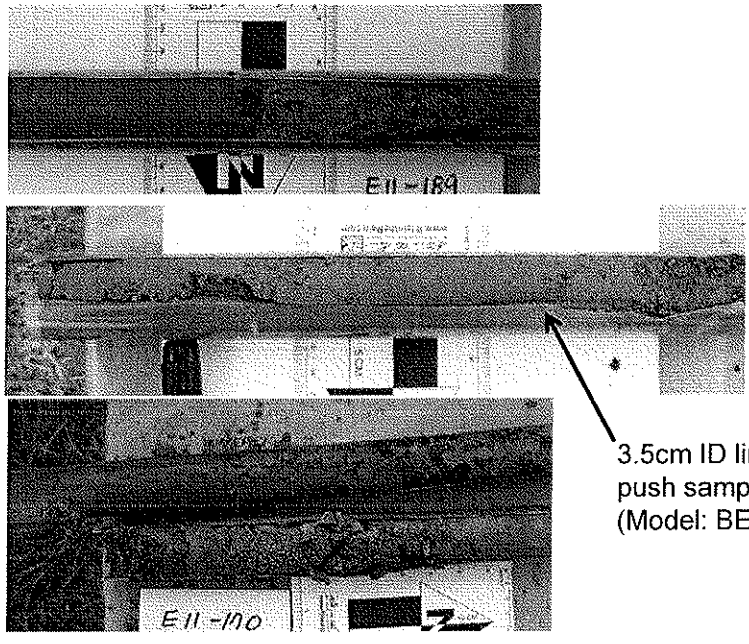
The collected alluvial soil samples are classified as fat or lean clay with sand (CH/CL), clean sand (SP), silty sand (SM), and clayey sand (SC). The samples show laminated or stratified texture of alternating layers of varying material or color with layers.

"Alluvial soils"

(1) Fat CLAY: dark brown; with about 10% fine to medium sand

(2) Silty SAND: grayish brown; wet; with about 20% fine to medium sands

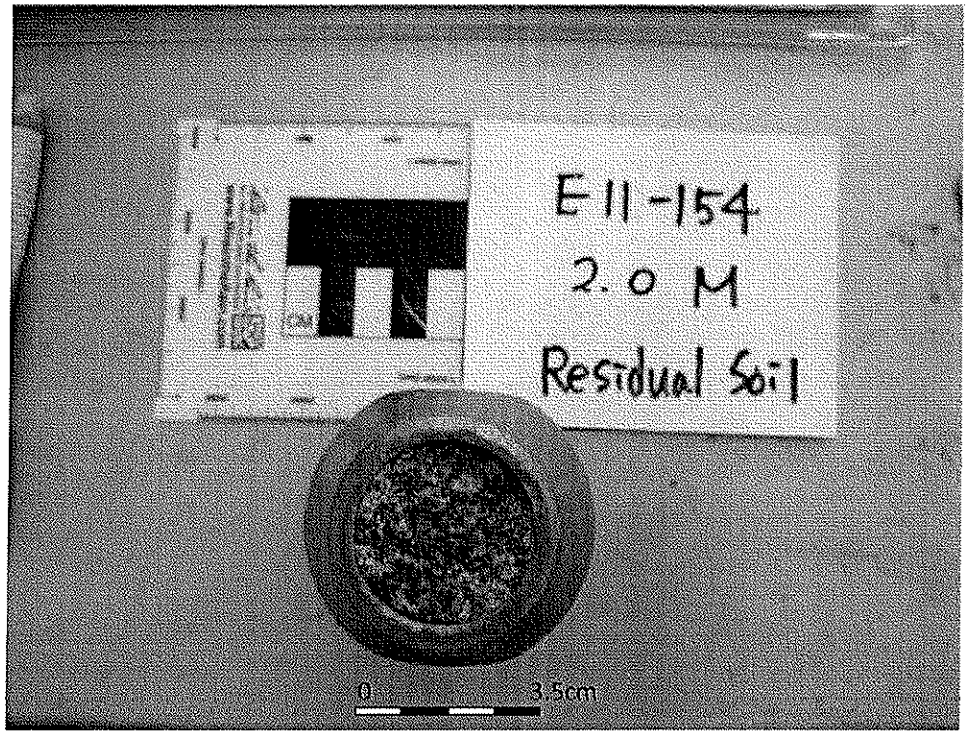
(3) Clayey SAND: brown to reddish brown and graded to gray; with about 30% fine to coarse sands



3.5cm ID liner of direct push sampler (Model: BEC50PM-1 & 2)

3207

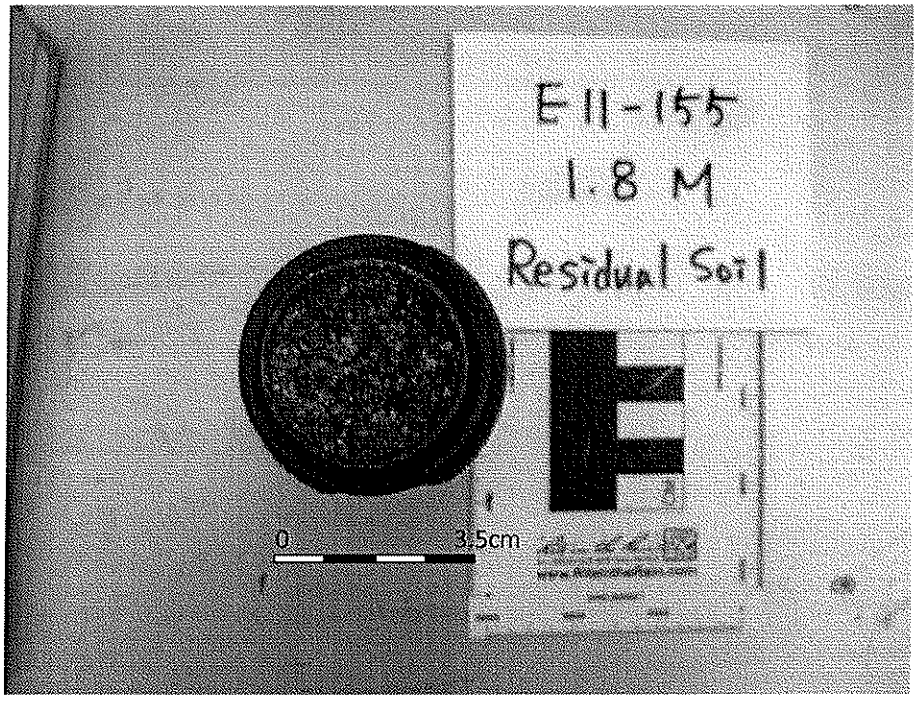
Borehole E11-154
Residual Soil Sample at 2.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 1

3208

Borehole E11-155
Residual Soil Sample at 1.8m

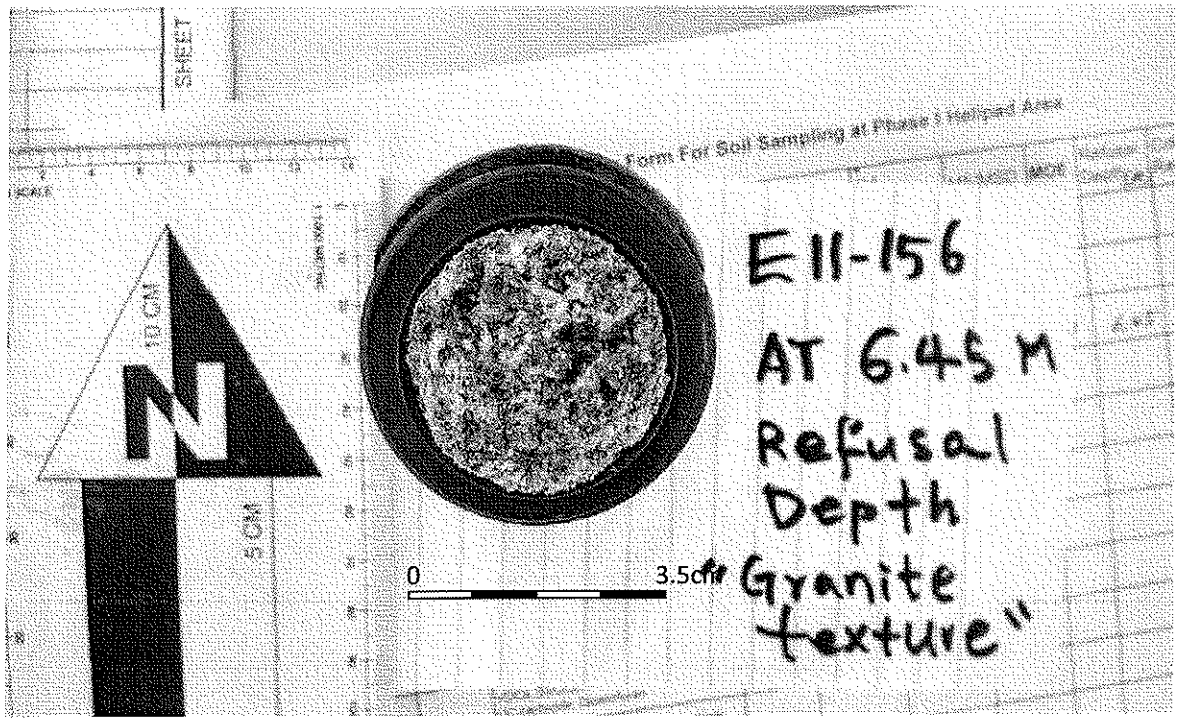


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 2

3209

Borehole E11-156

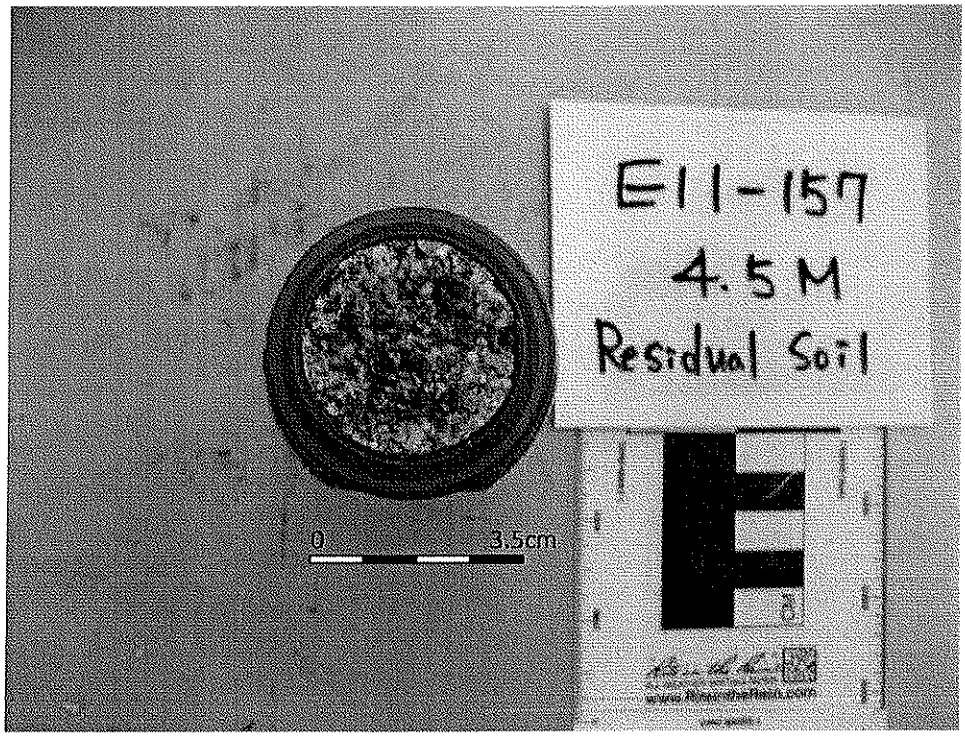
Residual Soil Sample at 6.45m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 3

3210

Borehole E11-157
Residual Soil Sample at 4.5m

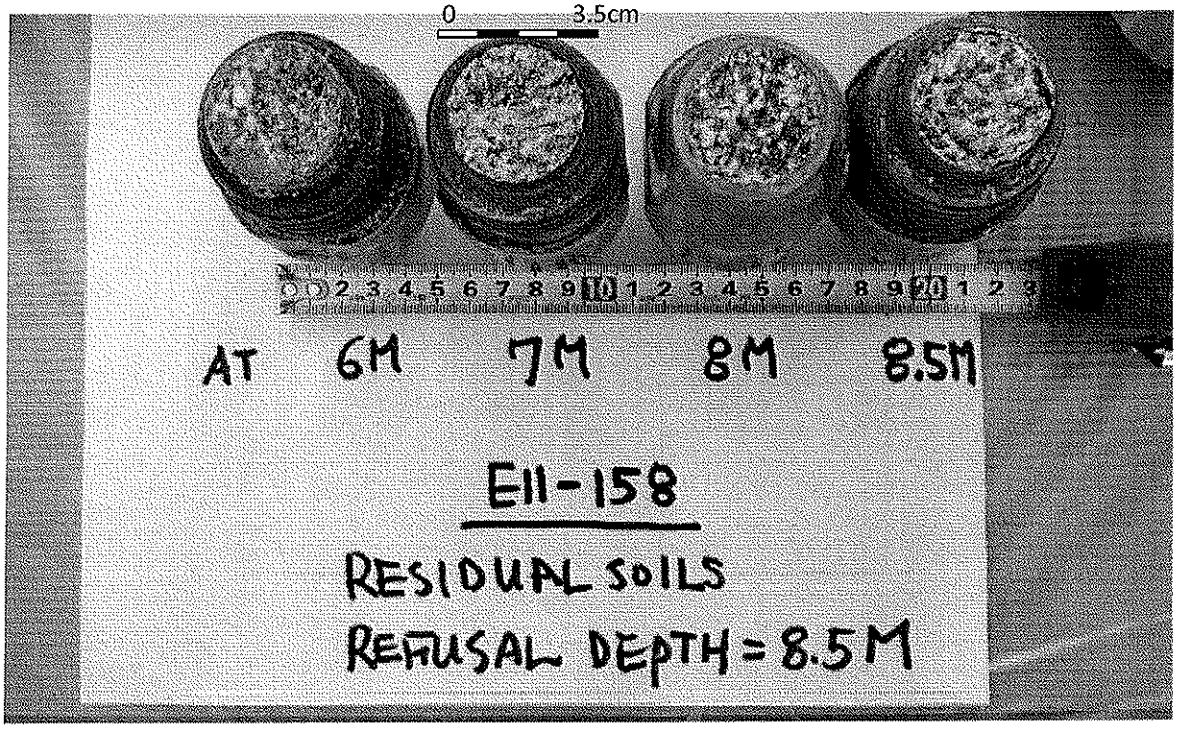


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 4

3211

Borehole E11-158

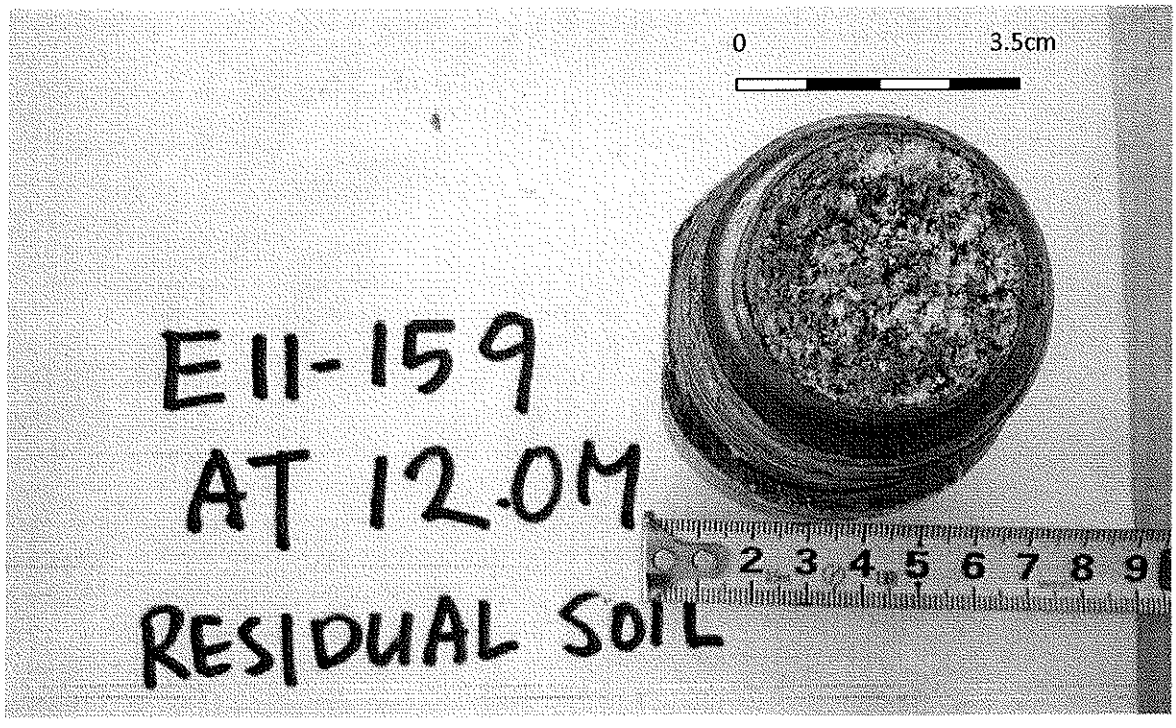
Residual Soil Sample at 6.0m, 7.0m, 8.0m, & 8.5m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 5

32/2

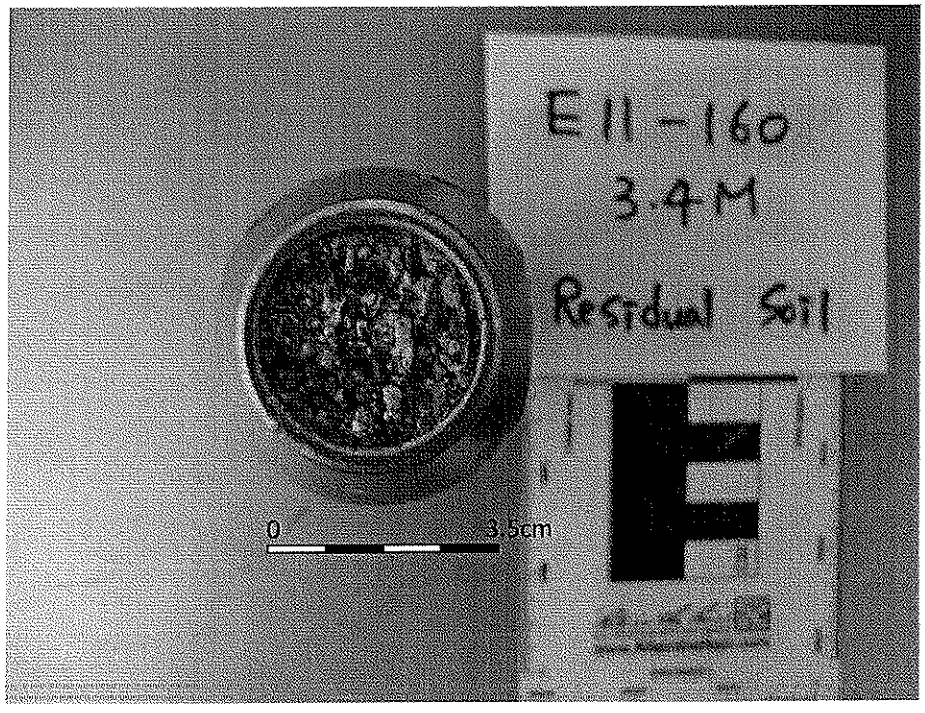
Borehole E11-159
Residual Soil Sample at 12.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 6

3213

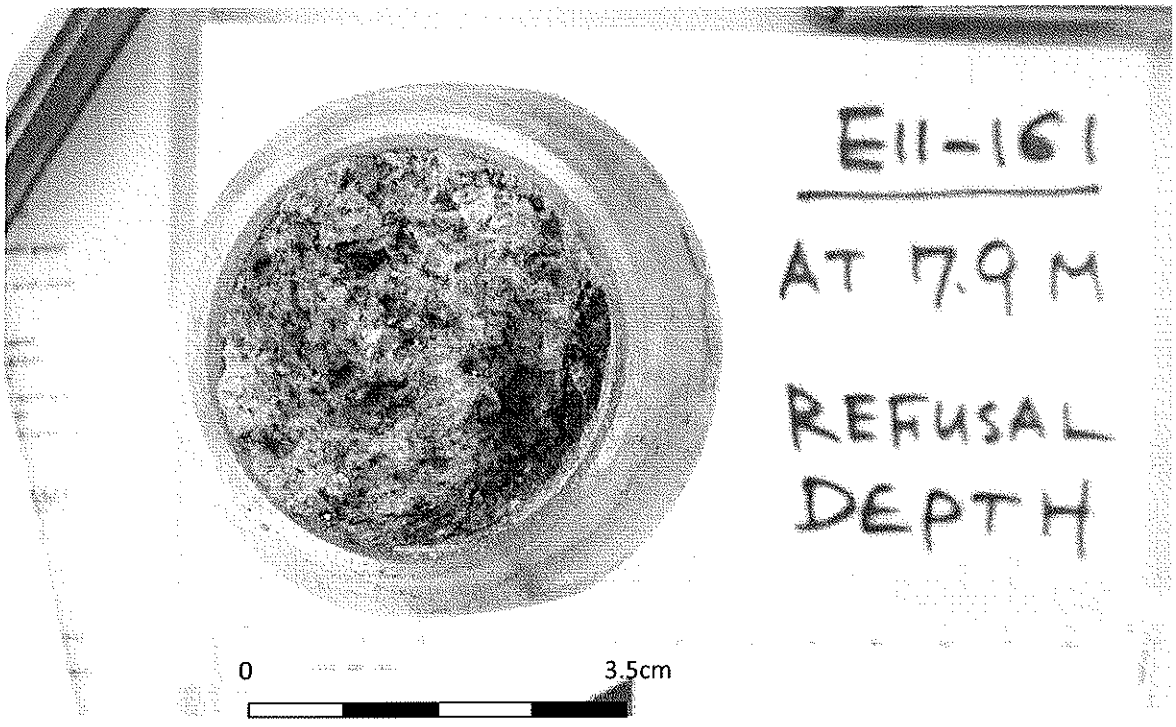
Borehole E11-160
Residual Soil Sample at 3.4m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 7

3214

Borehole E11-161
Residual Soil Sample at 7.9m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 8

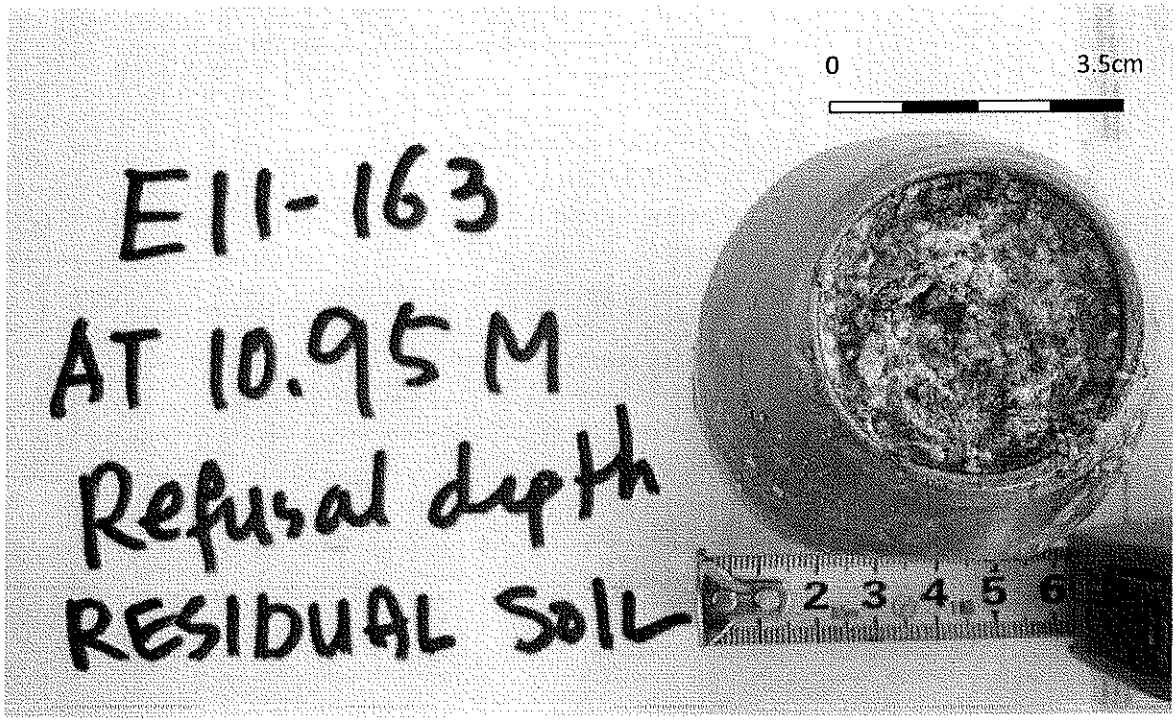
3215

Borehole E11-162
Residual Soil Sample at 1.52m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 9

3216

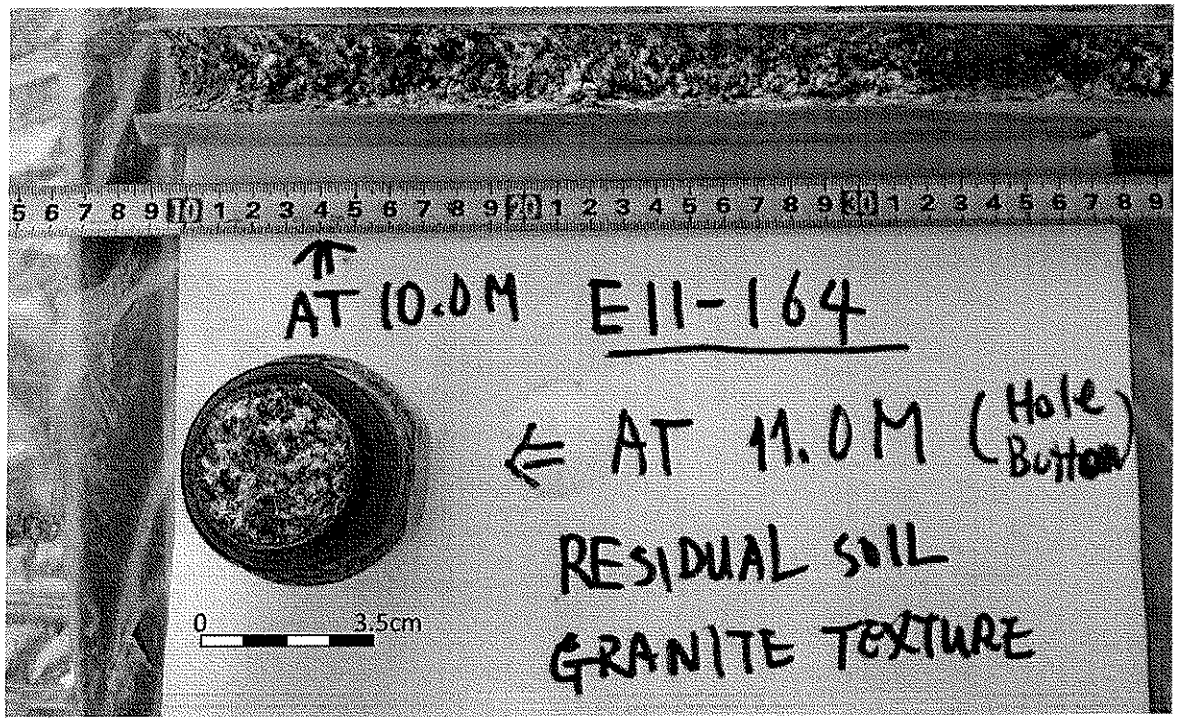
Borehole E11-163
Residual Soil Sample at 10.95m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 10

3217

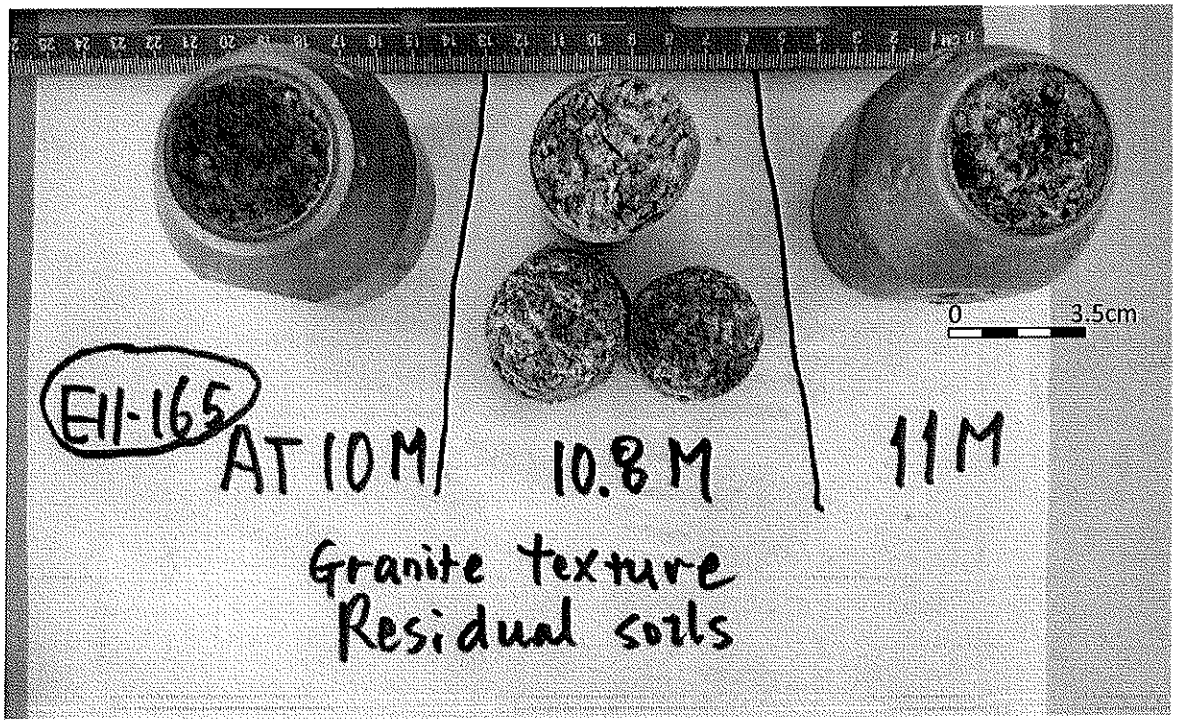
Borehole E11-164
Residual Soil Sample at 11.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 11

3218

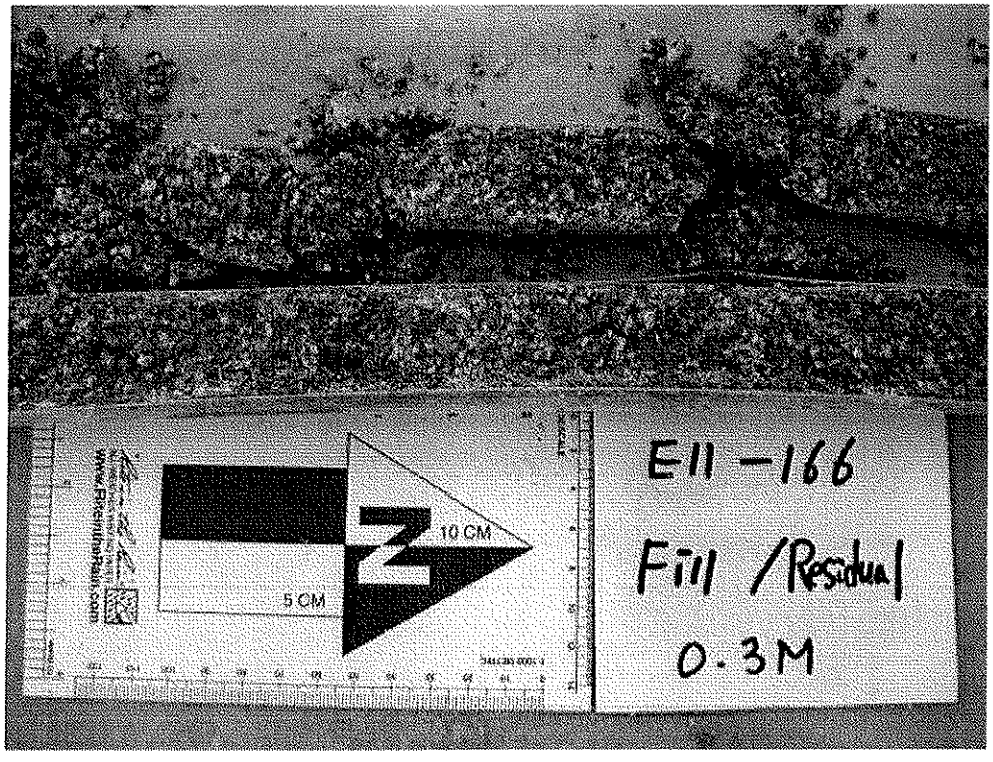
Borehole E11-165
Residual Soil Sample at 10m, 10.8m, & 11.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 12

3219

Borehole E11-166
Residual Soil Sample at 0.3m

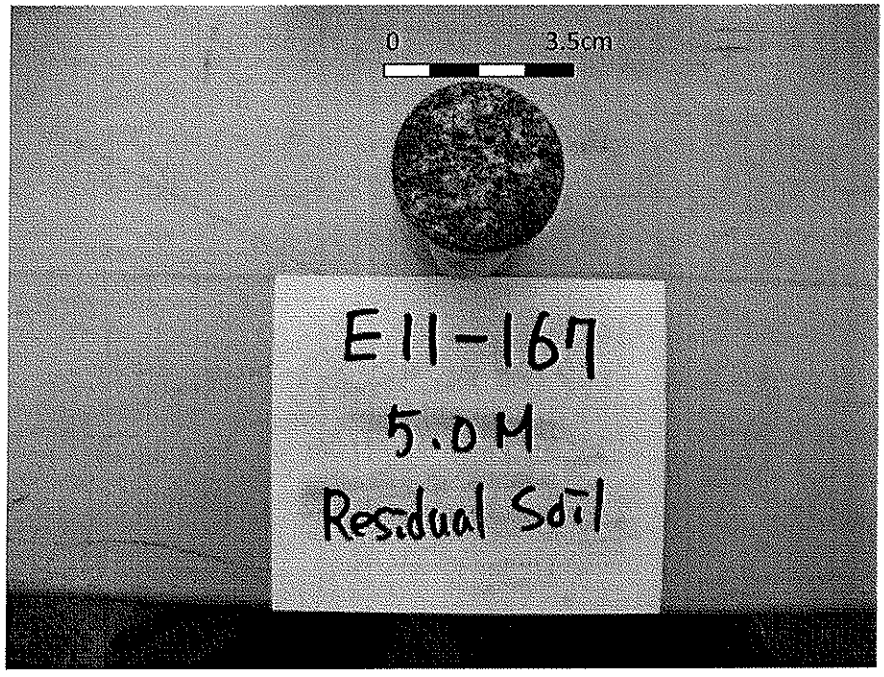


0 3.5cm

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 13

3220

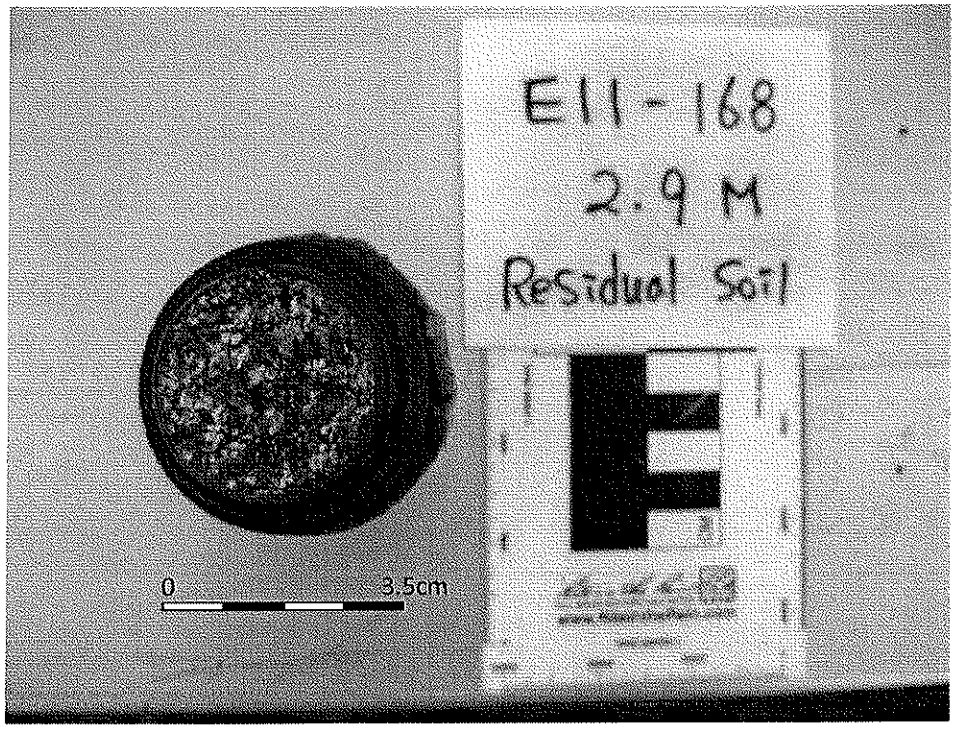
Borehole E11-167
Residual Soil Sample at 5.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 14

3221

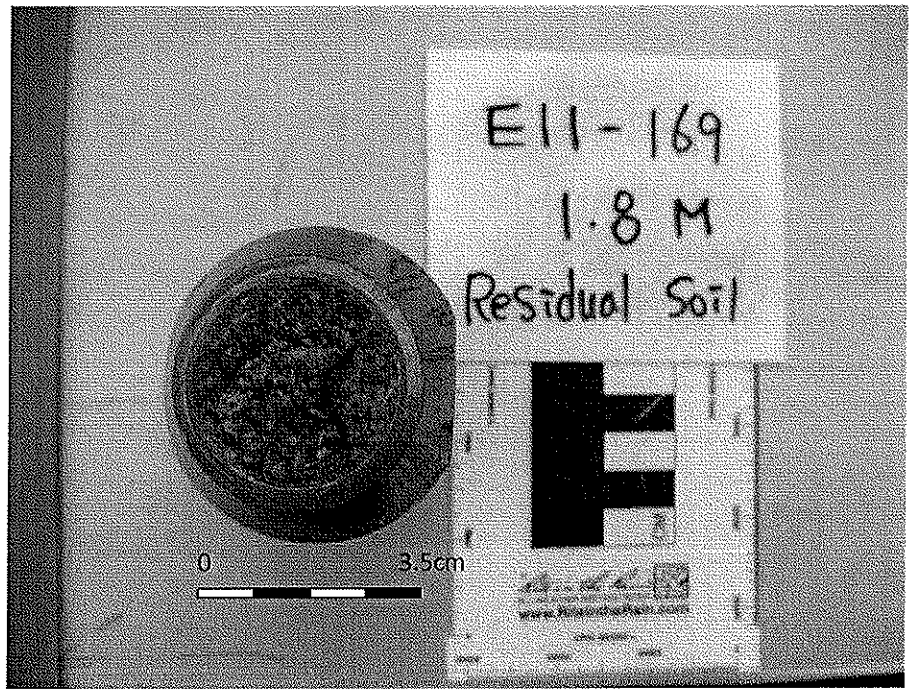
Borehole E11-168
Residual Soil Sample at 2.9m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 15

3222

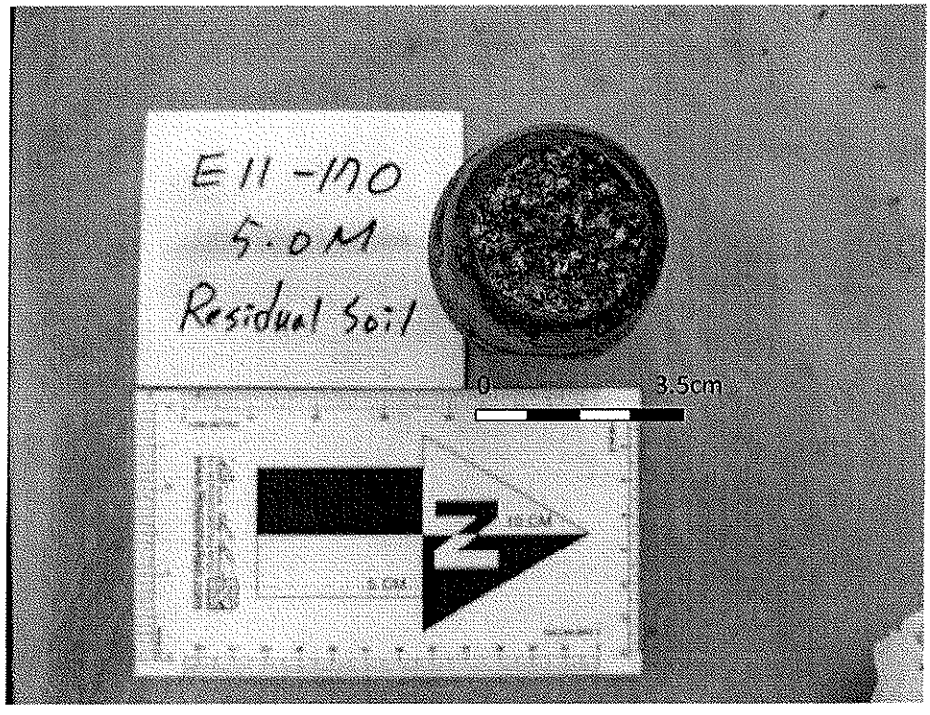
Borehole E11-169
Residual Soil Sample at 1.8m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 16

3223

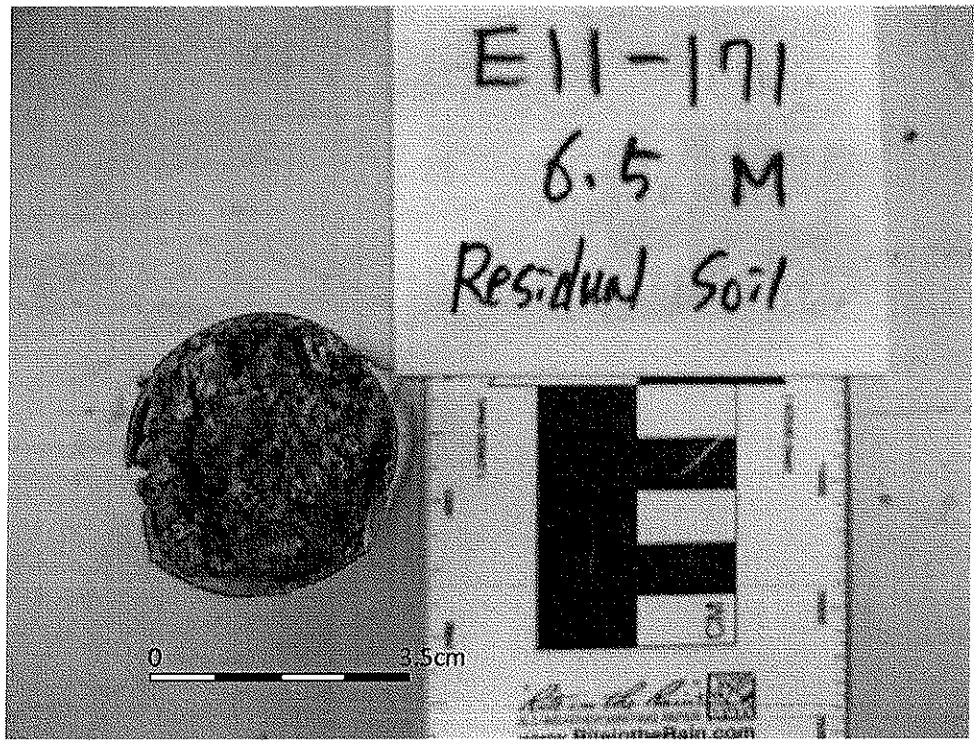
Borehole E11-170
Residual Soil Sample at 5.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 17

3224

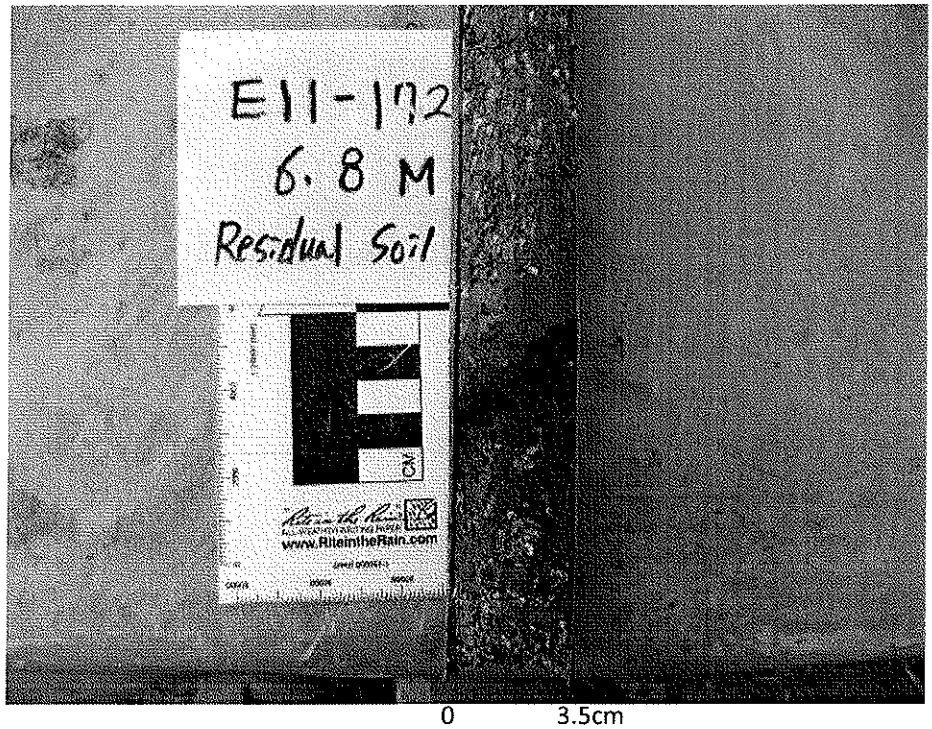
Borehole E11-171
Residual Soil Sample at 6.5m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 18

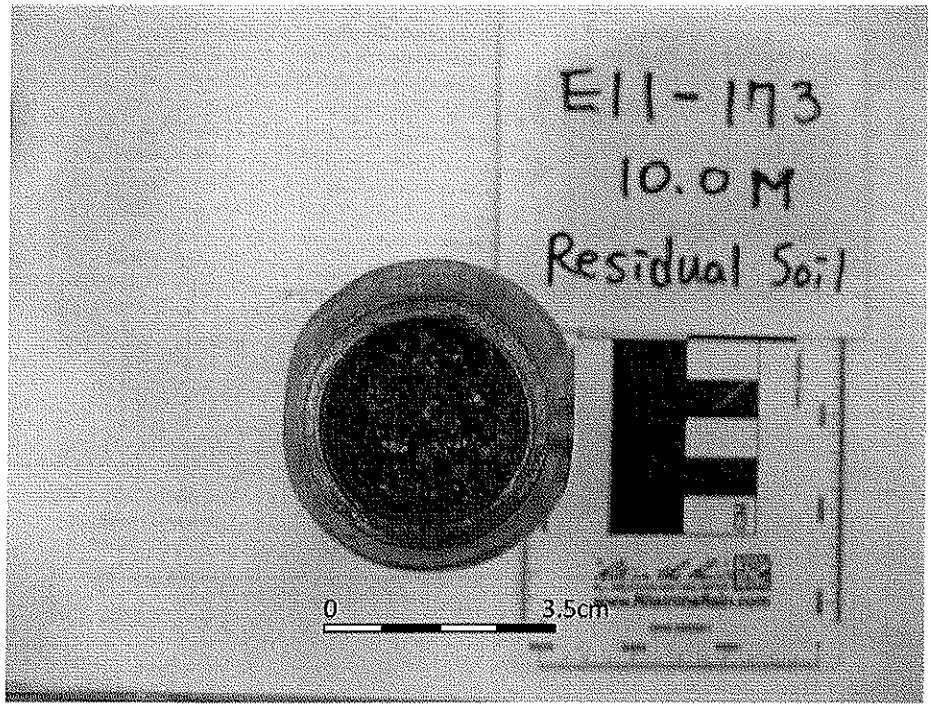
3285

Borehole E11-172
Residual Soil Sample at 6.8m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 19

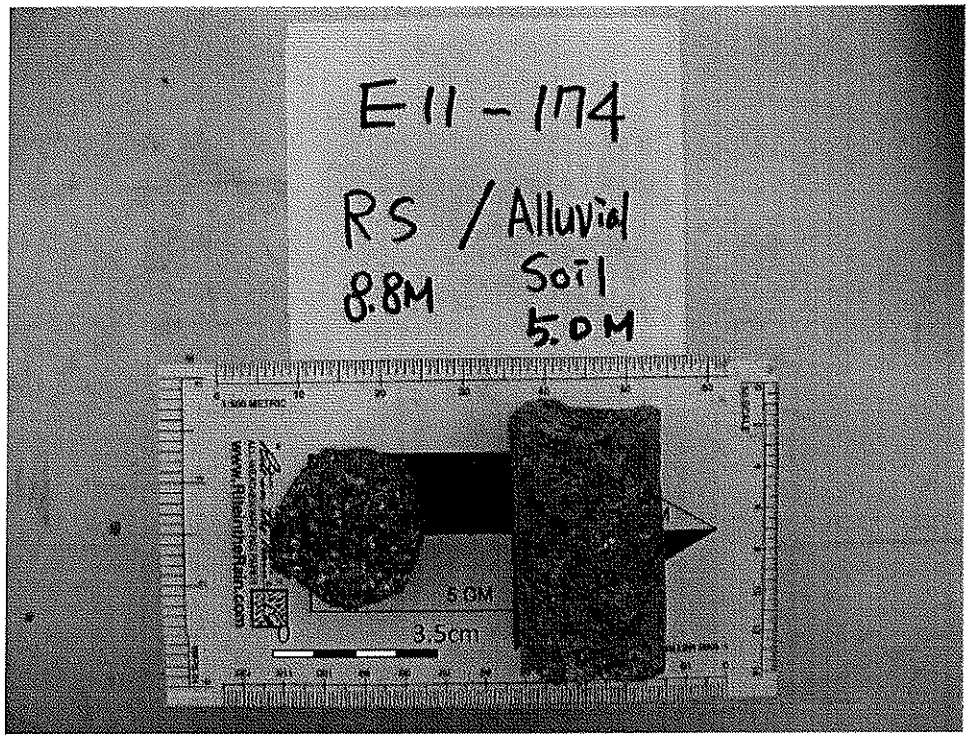
Borehole E11-173
Residual Soil Sample at 10.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 20

3227

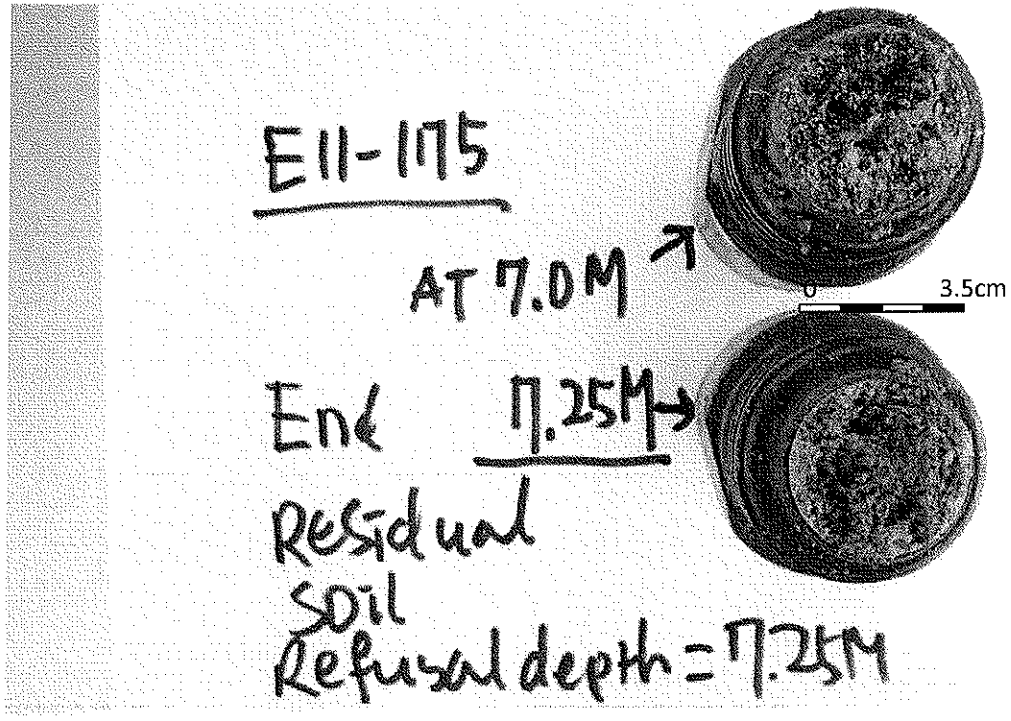
Borehole E11-174
Residual Soil Sample at 8.8m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 21

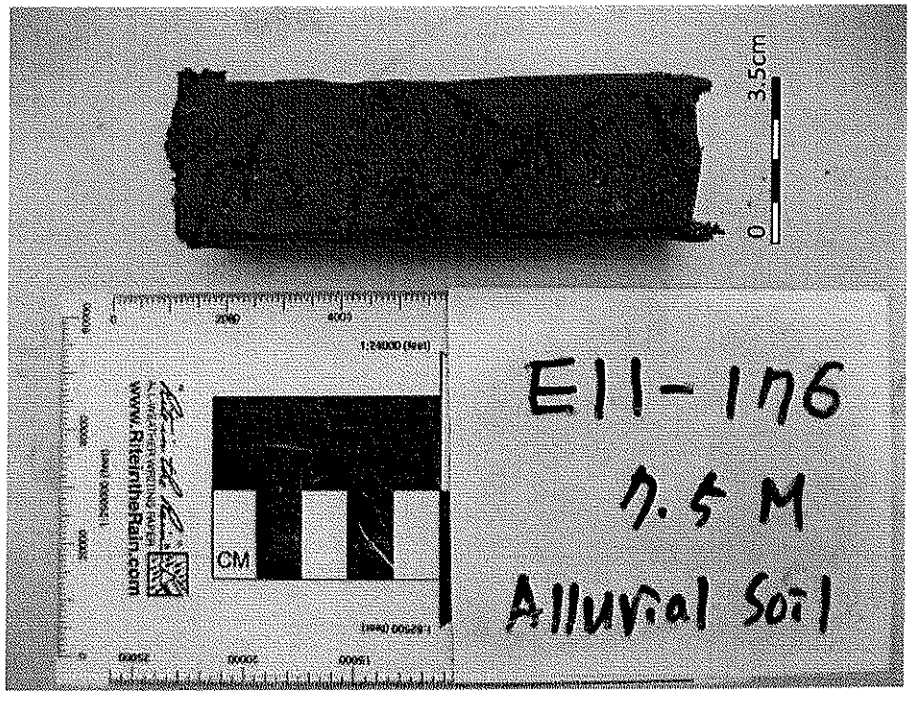
3238

Borehole E11-175
Residual Soil Sample at 7.25m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 22

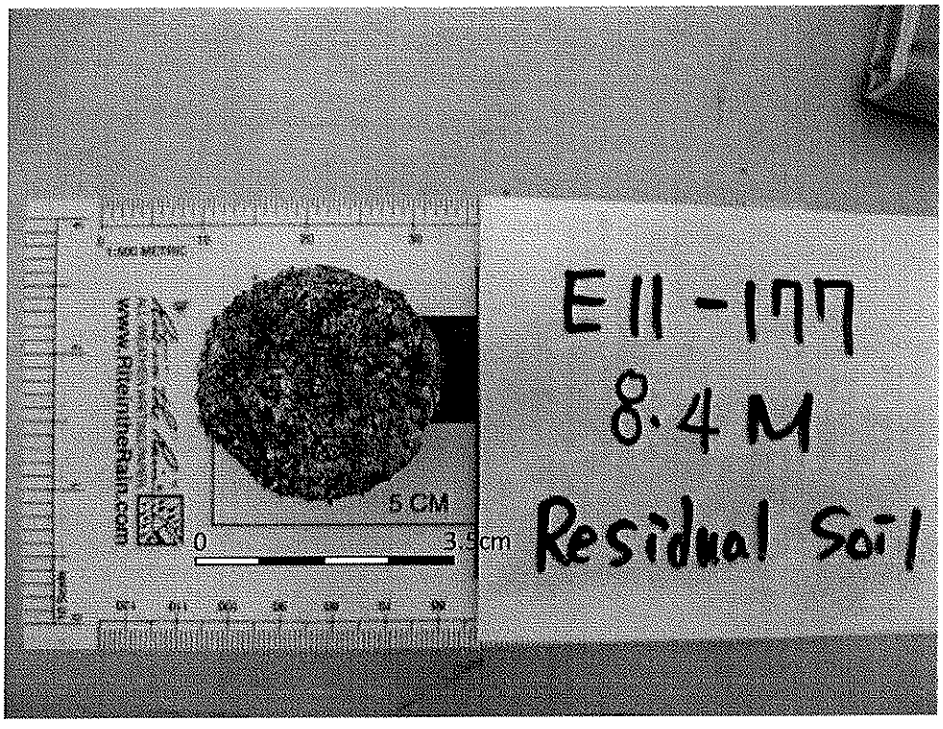
Borehole E11-176
Alluvial Soil Sample at 7.5m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 23

3230

Borehole E11-177
Residual Soil Sample at 8.4m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 24

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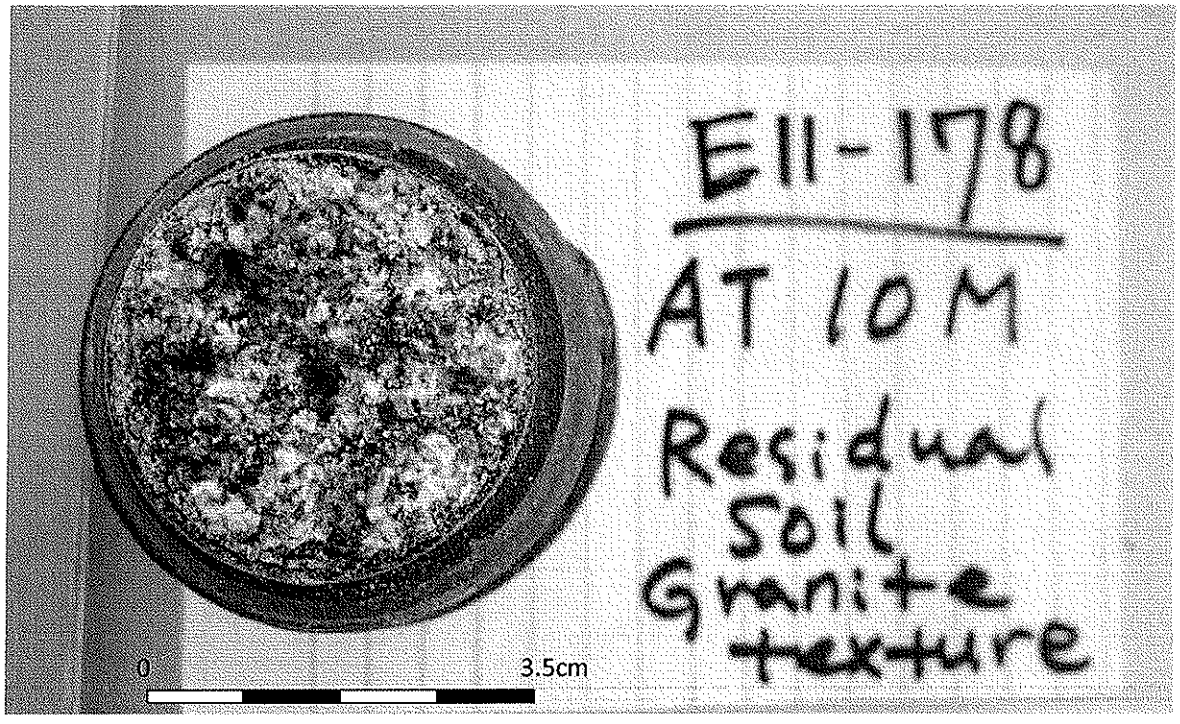
Borehole E11-178
Residual Soil Sample at 10.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 25

Borehole E11-178

Granite Texture Showing Residual Soil Sample at 9.9m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 26

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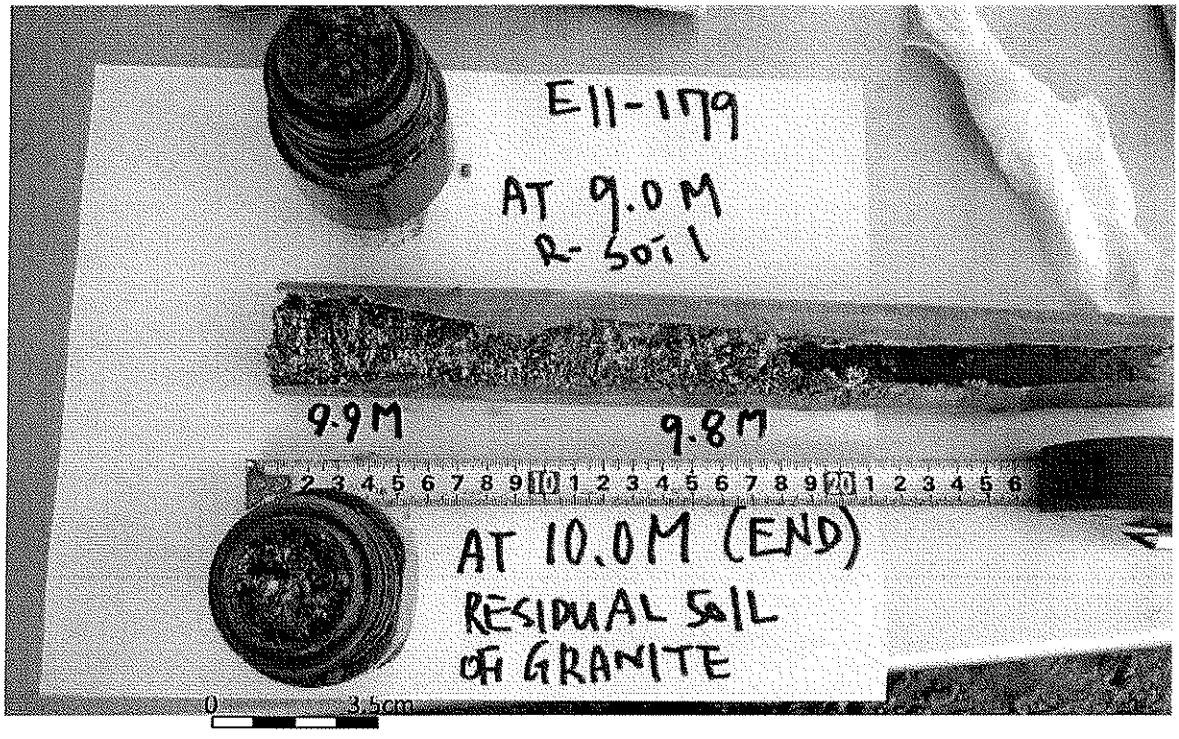
Borehole E11-179

Residual Soil Sample at 9.0m & 10.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 27

Borehole E11-180
Residual Soil Sample at 9.8-9.9m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 28

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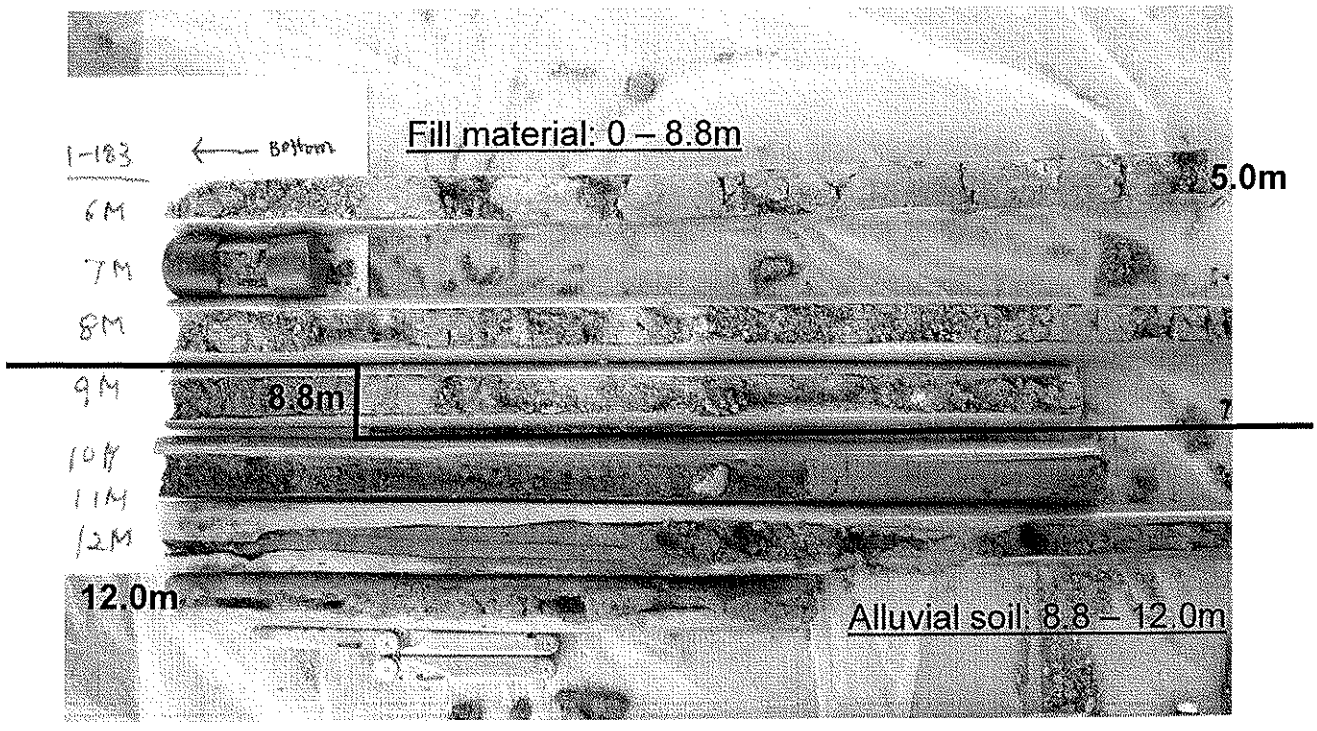
Borehole E11-183
Fill and Alluvial Soil Samples



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 29

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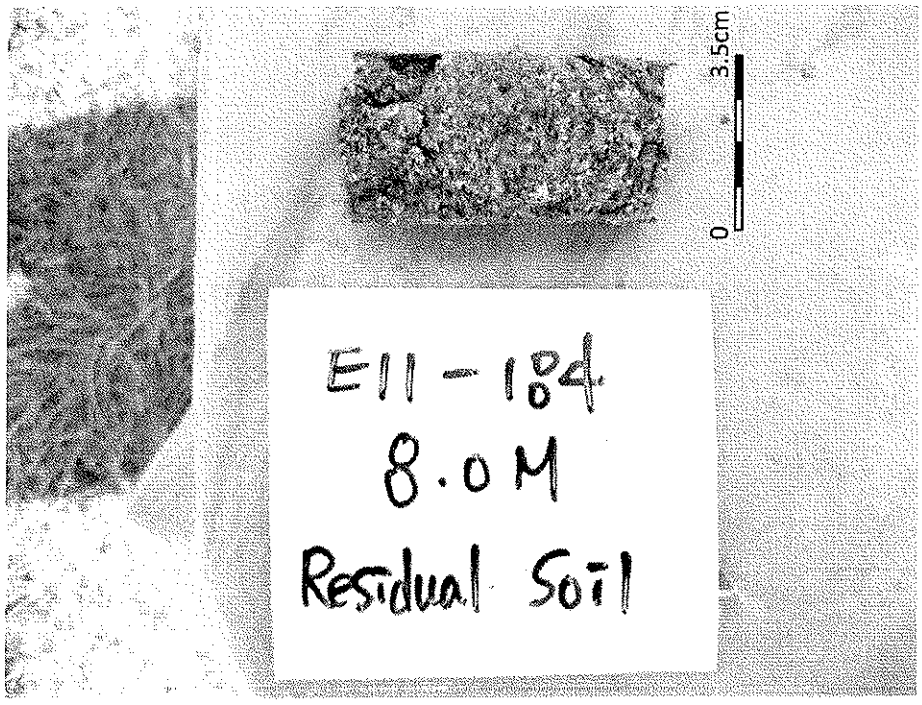
Borehole E11-184
Residual Soil Sample at 8.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 30

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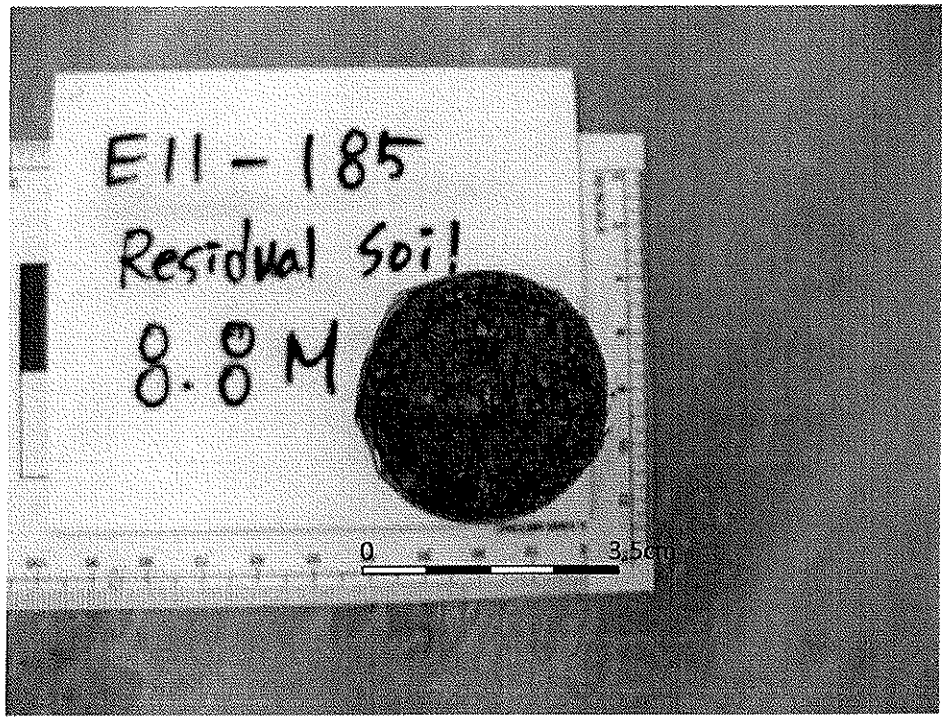
Borehole E11-185
Residual Soil Sample at 8.8m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 31

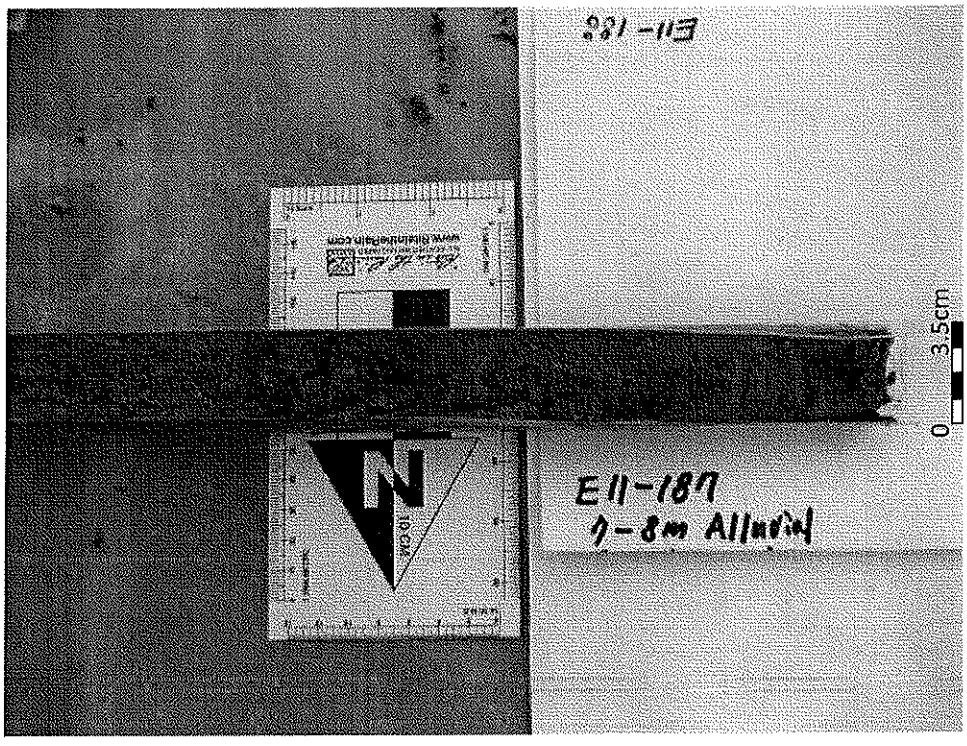
3238

Borehole E11-186
Residual Soil Sample at 8.0m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 32

3239

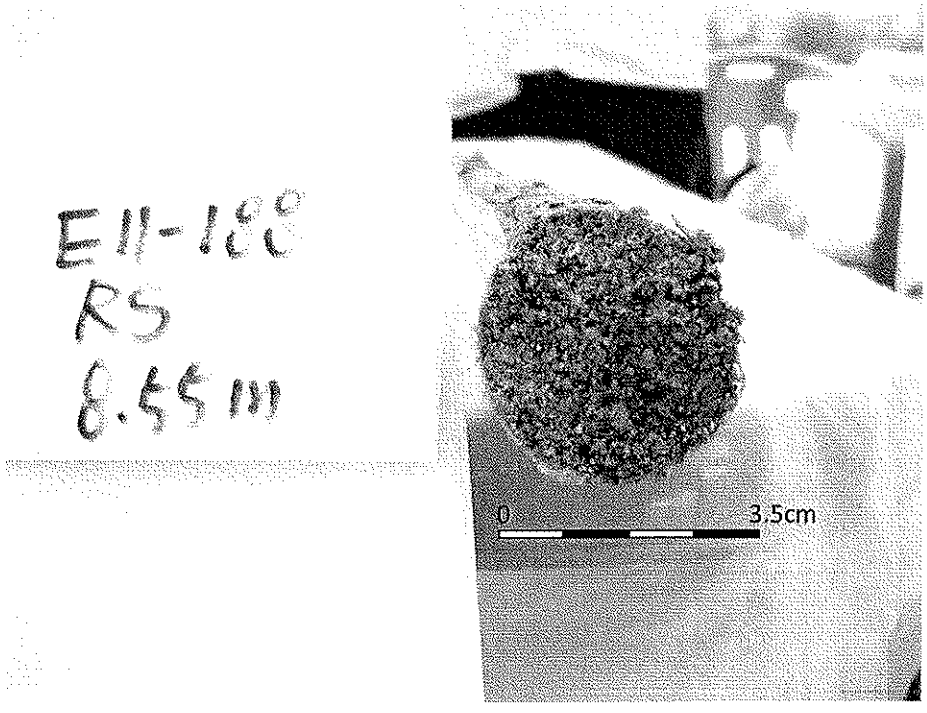
Borehole E11-187
Alluvial Soil Sample at 8.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 33

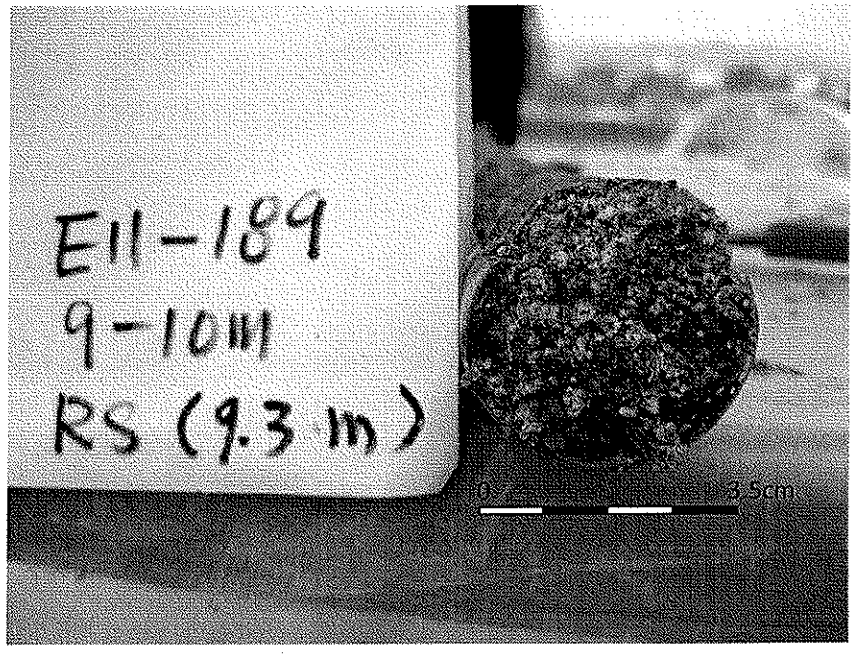
3240

Borehole E11-188
Residual Soil Sample at 8.55m



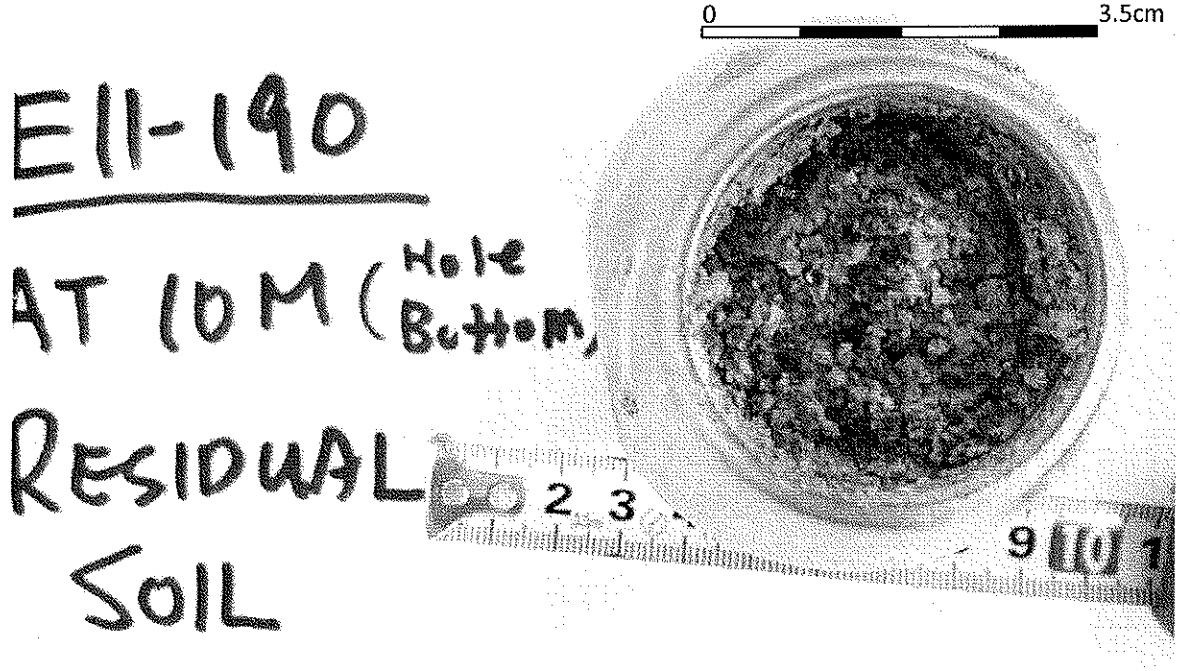
FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 34

Borehole E11-189
Residual Soil Sample at 9.3m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 35

Borehole E11-190
Residual Soil Sample at 10.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 36

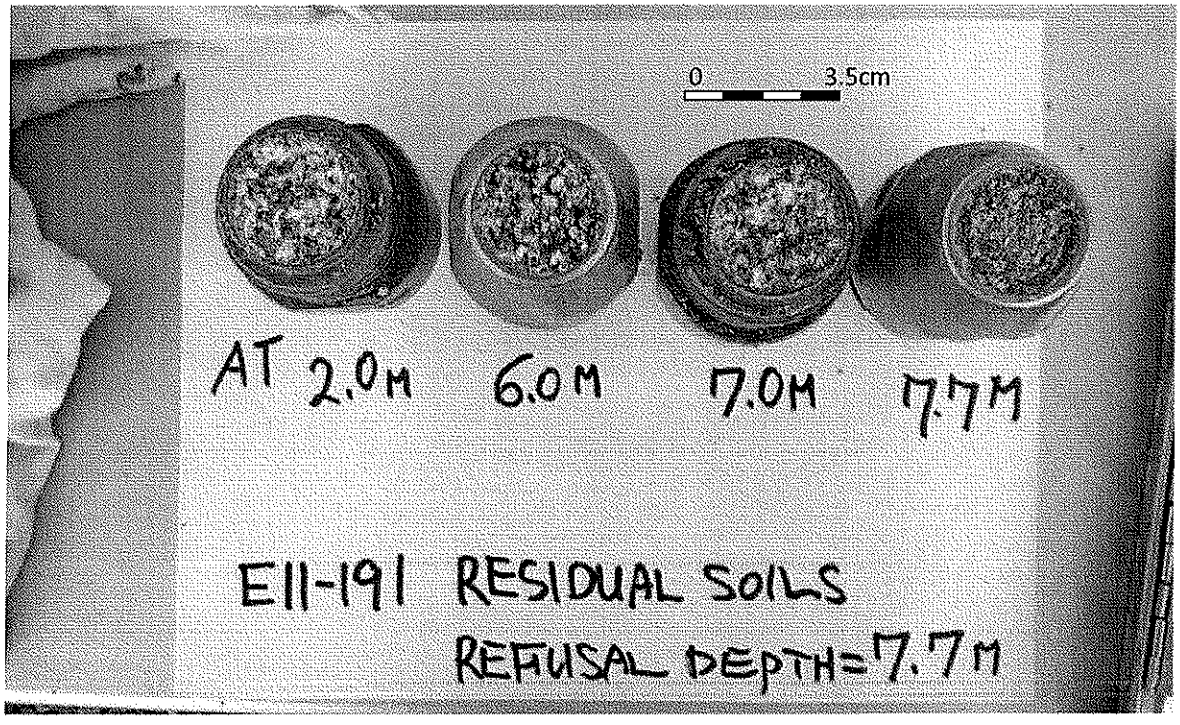
Borehole E11-190
Residual Soil Sample at 9.9m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 37

3244

Borehole E11-191

Residual Soil Sample at 2.0m, 6.0m, 7.0m, & 7.7m

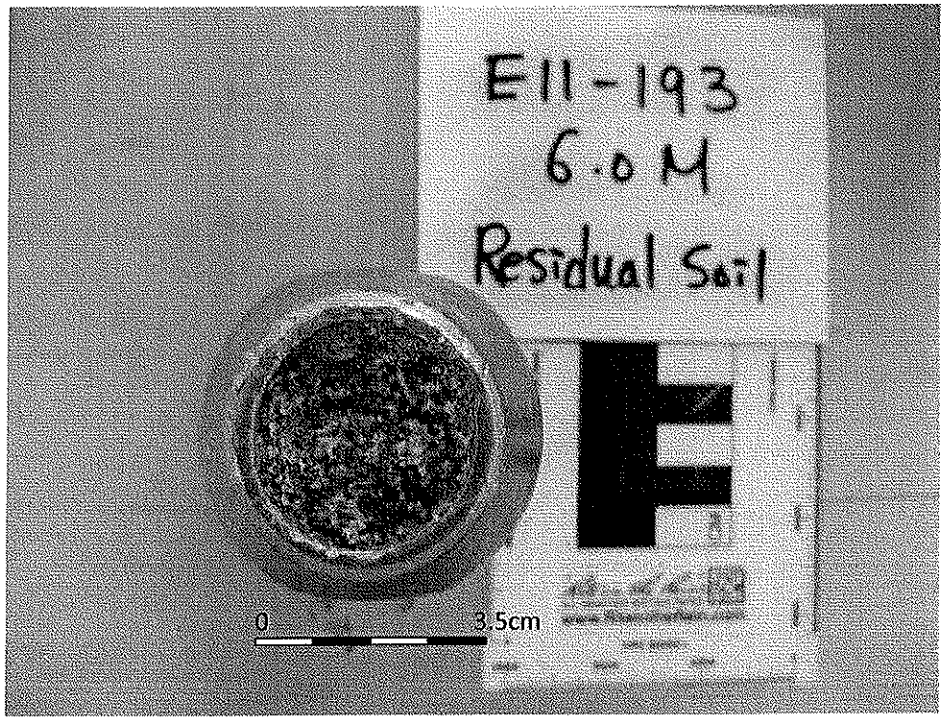


FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 38

Borehole E11-192
Residual Soil Sample at 11.0m & 12.0m

FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 39

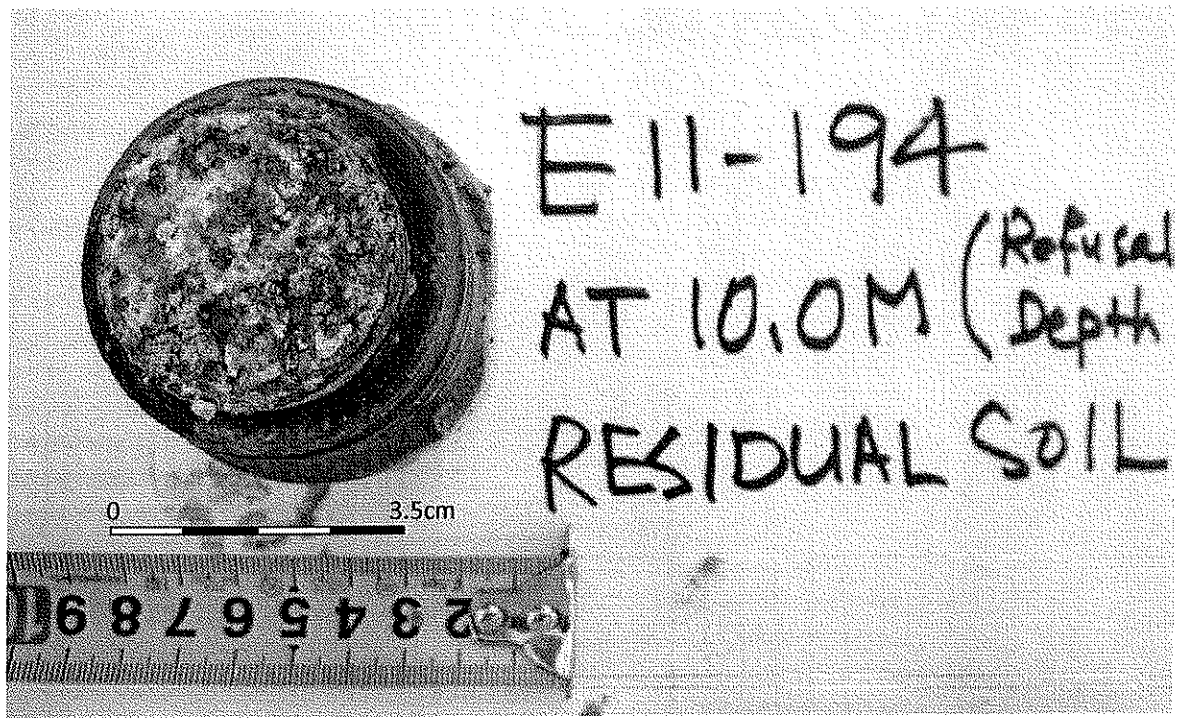
Borehole E11-193
Residual Soil Sample at 6.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 40

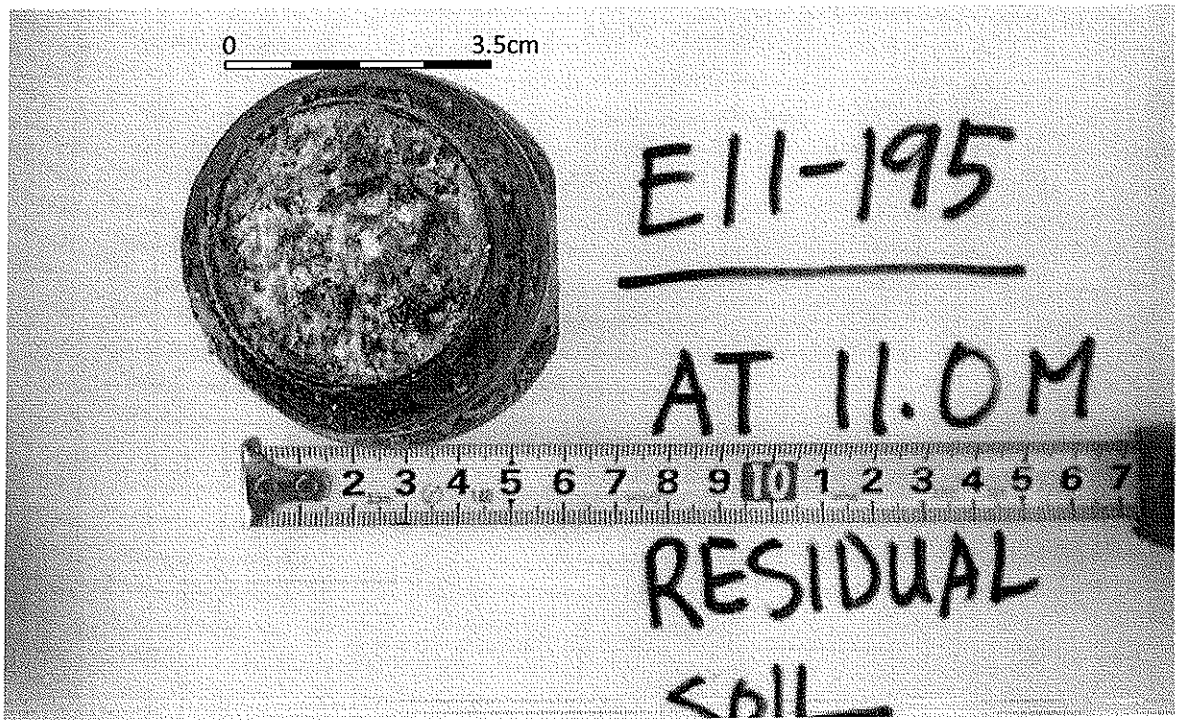
3247

Borehole E11-194
Residual Soil Sample at 10.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 41

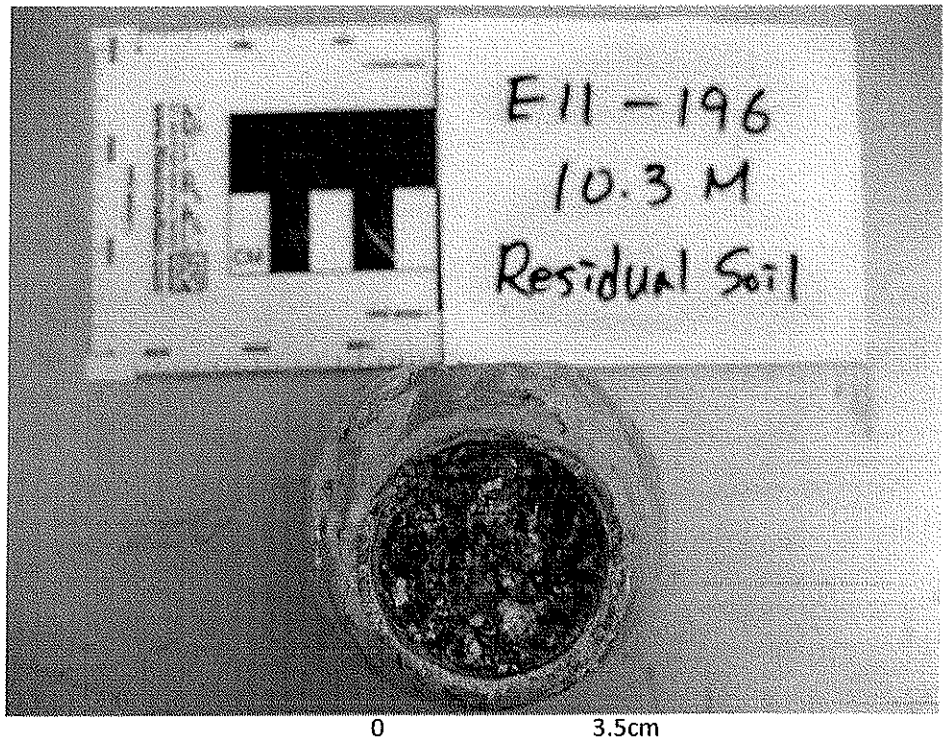
Borehole E11-195
Residual Soil Sample at 11.0m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 42

3249

Borehole E11-196
Residual Soil Sample at 10.3m



FAR EAST DISTRICT CORPS OF ENGINEERS Geotechnical and Environmental Engineering Branch	**Phase II Site Soil Sampling** **Camp Carroll** **(G&EE 11-032E)** **Aug 2011**	Plate 43

3250

APPENDIX VI. REPORT FOR PHASE 1 SOIL SAMPLE TEST RESULT

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FAR EAST DISTRICT
Unit #15546
APO AP 96205-5546

REPLY TO
ATTENTION OF:

SEP 0 9 2011

CEPOF-ED-G

MEMORANDUM FOR USFK Assistant Chief of Staff, Engineers, ATTN: Colonel Joseph F. Birchmeier, UNIT #15237, APO AP 96205-5237

SUBJECT: Final Test Results of Phase I (Helipad) Soil Samples, Cp Carroll, Korea (G&E 11-032E/E2011-59)

1. Enclosed are final test results for soil samples collected at Phase I (Helipad) Site, Cp Carroll. Soil sampling was conducted from 12 Jul to 18 Jul 2011 and a total of 118 samples were collected from 40 boreholes by the Geotechnical and Environmental Engineering Branch, US Army Corps of Engineers, Far East District (FED). The locations of boreholes are shown in Figure 1 and sample information, with sampling depth, is provided in Table 1.

2. The samples were tested by SGS North America located in Wilmington, NC, according to US EPA SW-846 Methods. The analytical parameters tested were dioxins and furans, chlorinated herbicides, organochlorine (OC) pesticides, organophosphorus (OP) pesticides, volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and RCRA (Resource Conservation and Recovery Act) metals. Three (3) samples were tested by the US Army Public Health Command as duplicate analyses for quality assurance purposes. A total of 205 analytes were tested for each soil sample. Table 2 provides test method information for each analytical parameter.

3. Laboratory Findings

Summaries of test results for each analytical parameter are provided in Tables 3 through 9. The highlighted numbers indicate detections of contaminants. The summary tables presented in this memorandum indicate those parameters which were detected above the reporting limit or, at least, estimated to be above its reporting limit. The full laboratory reports are provided on compact disk (CD).

a. **Dioxin and Furan**: The chemical compound, 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD), is one of the Agent Orange indicator compounds found in dioxin and furan congeners. The compound 2,3,7,8-TCDD was detected in 15 samples at the levels between 0.080 and 0.189 pg/g. The results for all 15 samples were less than reporting limit and EMPC-flagged (estimated maximum possible concentration). The EMPC flag means the results were calculated from a signal which did not meet the mass spectrum quality criteria, but was estimated as the maximum possible concentration under the assumption the signal is only originated from the analyte. None of the samples were detected for 2,3,7,8-TCDD at levels greater than reporting limits. Most of dioxin and furan congeners were found at levels between detection

3252

limits and reporting limits and are identified with the flag "J". OCDD was the most common dioxin found during sampling and was detected in 116 out of 118 samples tested. The maximum concentration was 524 pg/g at E11-150-S1 (0-0.5m depth). The toxic equivalence factor (TEF) of OCDD for human health risk is relatively lower (TEF=0.0003) than other dioxin congeners. Calculated toxic equivalent (TEQ) values ranged from 0.005 to 1.156 pg/g based on 2005 World Health Organization (WHO) evaluation.

b. **Chlorinated Herbicide**: No chlorinated herbicides were detected in any of the collected samples. Agent Orange-related chemicals in chlorinated herbicides are 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). The reporting limits of Agent Orange constituents range from 0.016 to 0.019 mg/kg for both of 2,4-D and 2,4,5-T.

c. **OC-Pesticide**: Analytes such as 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, alpha-BHC, delta-BHC, gamma-BHC (Lindane) and gamma-Chlordane were detected in 62 samples. Gamma-BHC has the highest concentration among the analytes and it was found at the concentration of 163,000 µg/kg in E11-118-S2 (0.5-2.0m depth).

d. **OP-Pesticide**: No OP-pesticides were detected in any of the collected samples.

e. **VOC**: A number of VOCs were detected in the collected samples. Tetrachloroethene (PCE) was detected in 25 samples out of a total of 118 samples tested and had the highest VOC concentration of 18,000 µg/kg at E11-119-S2 (0.6-2.0m depth). Trichloroethene (TCE) was detected in 3 samples and had the highest concentration of 186 µg/kg at the same borehole and depth. Benzene had the highest concentration of 117 µg/kg at E11-118-S3 (2.0-5.0m depth). Total xylenes had the highest concentration of 1683 µg/kg at E11-118-S2 (0.5-2.0m depth).

f. **SVOC**: A few SVOC analytes were detected at levels between detection limits and reporting limits.

g. **Metal**: Arsenic and lead were detected in 117 and 118 samples respectively. E11-135-S1 (0-0.5m depth) was found to have the highest concentration for both analytes; 39 mg/kg of arsenic, 138 mg/kg of lead. Mercury was detected at levels between detection limits and reporting limits, the maximum concentration was 0.0147 mg/kg at E11-134-S1 (0-0.5m depth).

4. Quality Control and Quality Assurance

a. **Data Validation**

Chemical data validation was conducted by US Army Corps of Engineers, Honolulu District using Automated Data Review (ADR) Version 8.2. Results for dioxin/furan analyses were evaluated in accordance with guidance provided in the *National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins and Chlorinated Dibenzofurans*, OSWER 9240.1-51. Results

for organic analyses and inorganic analyses were evaluated in accordance with *National Functional Guidelines for Superfund Organic Methods Data Review*, OSWER 9240.1-48 and *National Functional Guidelines for Inorganic Superfund Data Review*, OSWER 9240.1-51, respectively. Full data validation reports are included on compact disk (CD).

(1) Sample Preservation: All samples must be refrigerated at 4 ± 2°C from the time of receipt (time of collection when possible) until the time of extraction. All samples were received by the laboratory at temperatures between 1 °C and 6 °C. The temperature discrepancies are slight and should not affect the validity of the data.

(2) Holding Times: The maximum allowable holding time between sample collection and sample preparation or sample preparation and sample analysis depends on the analyte. All samples were prepared and analyzed within the allowable holding times specified by the appropriate method. There was no holding time discrepancy.

(3) Quality Control Samples: The Validation report summarized the evaluation of the performance of QC samples such as blanks, surrogate spikes, laboratory control samples, and matrix spike/matrix spike duplicates. The validation report includes identification of reported results which need to be qualified (flagged) due to quality control issues, and the reasons for the flags. For example, methylene chloride in VOC was detected in some laboratory blanks at concentration levels above reporting limits. Methylene chloride results of field samples were determined "not detected" depending on level of detection for this sample group. Hexachlrocyclopentadiene results in SVOC were unacceptably high at laboratory control samples in some sample groups. The hexachlrocyclopentadiene results were rejected for the sample groups. The rejected results were identified with the flag "R".

(4) Summary: Laboratory data packages were reviewed for preservation, holding times, blanks, surrogate spikes, laboratory control samples, and matrix spike/matrix spike duplicates. The evaluation for these parameters is considered to be a "Level 2b" Data Validation. The overall data validation showed that the data is generally of acceptable quality with some results for specific analytes being rejected or qualified as estimated/not detected.

b. **Duplicate Sample Results**

Field samples were collected as duplicates and used for performance evaluation and QA purposes. Duplicate sample results were evaluated based on EM 200-1-6 titled Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste Projects. The document identifies the criteria for comparing field QC and QA sample data. Based on those criteria, the concentration ratio between primary and duplicate samples should be within designated limits to be evaluated as "agreement" with each other. The acceptance criteria are as follows.

$0.33 \leq$ Ratio ≤ 3.00 when one result is less than reporting limit
$0.50 \leq$ Ratio ≤ 2.00 for metal
$0.20 \leq$ Ratio ≤ 5.00 for VOC
$0.25 \leq$ Ratio ≤ 4.00 for Dioxin, Herbicide, Pesticide, and SVOC

(1) Duplicate Samples in Primary Laboratory: Eleven (11) sets of duplicate samples were provided to the primary laboratory for blind duplicate analyses (primary and primary dup). Table 10 shows the results of samples to be compared and evaluated outcome determining whether the ratio is within "agreement" criteria or not. The table lists the analytes having at least one quantified (detected) result. Other analytes which are not included in the table had results "not detected" at both of the primary and primary dup samples, and they are considered as in "agreement" each other. Out of 11 sets of samples and 2255 analytes (205 analytes/sample), only 5 analytes showed "disagreement" between duplicate samples analyzed in the primary laboratory.

(2) Duplicate Samples between Primary and QA laboratories: Three (3) sets of duplicate samples were analyzed and compared between primary and QA laboratories. Comparison of the results and performance evaluation are provided in Table 11. The analytes that were not detected in both samples were omitted in this table. Out of 3 sets of samples and 615 analytes, 2 analytes showed "disagreement" as a result of the comparison of data between two different laboratories.

(3) The possible reason for the duplicate disagreement is considered to be due to non-homogeneity of the soil samples. Soil samples are homogenized when they are collected in two different containers at the site and also the laboratories homogenize soil samples prior to analyses. But there can be "hot spots" in a container that go into the sample aliquot and cause disparity between the results. The bis(2-ethylhexyl)phthalate disagreement could have come from a small piece of plastic present in one sample container and not the other or some other source of plastic. The data comparison showed pretty good performance and assured the quality of analyses.

5. The POC for this matter is Ms. [redacted] at [redacted]
b6 b6

Encl

[redacted]
b6

Chief, Geotechnical and Environmental
Engineering Branch

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Tables and Figures

- Final Test Results of Phase I Soil Samples, Cp Carroll -

Table 1. Soil Sample Information for Phase I (Helipad) Site

Borehole	Sample ID	Depth (m)
E11-114	S1	0-0.5
E11-114	S2	0.5-2.0
E11-114	S3	2.0-5.0
E11-114	S4	5.0-8.4
E11-115	S1	0-0.5
E11-115	S2	0.5-2.0
E11-115	S3	2.0-5.0
E11-115	S4	5.0-9.4
E11-116	S1	0-0.5
E11-116	S2	0.5-2.0
E11-116	S3	2.0-5.0
E11-116	S4	5.0-9.7
E11-117	S1	0-0.5
E11-117	S2	0.5-2.0
E11-117	S3	2.0-5.0
E11-117	S4	5.0-10.0
E11-118	S1	0-0.5
E11-118	S2	0.5-2.0
E11-118	S3	2.0-5.0
E11-118	S4	5.0-8.9
E11-119	S1	0.1-0.6
E11-119	S2	0.6-2.0
E11-119	S3	2.0-5.0
E11-119	S4	5.0-7.9
E11-120	S1	0-0.5
E11-120	S2	0.5-2.0
E11-120	S3	2.0-3.3
E11-121	S1	0-0.5
E11-121	S2	0.5-2.7
E11-122	S1	0-0.5

Borehole	Sample ID	Depth (m)
E11-122	S2	0.5-2.0
E11-122	S3	2.0-5.0
E11-122	S4	5.0-9.3
E11-123	S1	0-0.5
E11-123	S2	0.5-2.0
E11-123	S3	2.0-5.0
E11-123	S4	5.0-7.7
E11-124	S1	0-0.5
E11-124	S2	0.5-2.0
E11-124	S3	2.0-5.0
E11-124	S4	5.0-7.35
E11-125	S1	0-0.5
E11-125	S2	0.5-1.56
E11-126	S1	0-0.5
E11-126	S2	0.5-1.83
E11-127	S1	0-0.5
E11-127	S2	0.5-2.32
E11-128	S1	0-0.5
E11-128	S2	0.5-3.2
E11-129	S1	0-0.76
E11-130	S1	0-1.22
E11-131	S1	0.12-0.5
E11-131	S2	0.5-1.7
E11-132	S1	0.1-0.6
E11-132	S2	0.6-3.0
E11-133	S1	0.15-0.65
E11-133	S2	0.65-2.46
E11-134	S1	0-0.5
E11-134	S2	0.5-1.51
E11-135	S1	0-0.5

Borehole	Sample ID	Depth (m)
E11-135	S2	0.5-2.0
E11-135	S3	2.0-5.0
E11-135	S4	5.0-7.65
E11-136	S1	0-0.5
E11-136	S2	0.5-3.2
E11-137	S1	0-0.5
E11-137	S2	0.5-2.0
E11-137	S3	2.0-5.0
E11-137	S4	5.0-6.75
E11-138	S1	0.4-0.9
E11-138	S2	0.9-2.22
E11-139	S1	0-0.5
E11-139	S2	0.5-2.0
E11-139	S3	2.0-3.66
E11-140	S1	0-0.5
E11-140	S2	0.5-2.0
E11-140	S3	2.0-3.0
E11-141	S1	0.3-0.8
E11-141	S2	0.8-2.3
E11-141	S3	2.3-5.3
E11-141	S4	5.3-7.2
E11-142	S1	0-0.5
E11-142	S2	0.5-2.0
E11-142	S3	2.0-4.73
E11-143	S1	0-0.5
E11-143	S2	0.5-2.0
E11-143	S3	2.0-3.55
E11-144	S1	0-0.5
E11-144	S2	0.5-1.52
E11-145	S1	0-0.5

Borehole	Sample ID	Depth (m)
E11-145	S2	0.5-2.0
E11-145	S3	2.0-5.0
E11-146	S1	0-0.5
E11-146	S2	0.5-2.0
E11-146	S3	2.0-4.85
E11-147	S1	0-0.5
E11-147	S2	0.5-1.97
E11-148	S1	0.3-0.8
E11-148	S2	0.8-2.3
E11-148	S3	2.3-5.8
E11-149	S1	0-0.5
E11-149	S2	0.5-2.0
E11-149	S3	2.0-3.6
E11-150	S1	0-0.5
E11-150	S2	0.5-2.0
E11-150	S3	2.0-5.0
E11-150	S4	5.0-7.0
E11-151	S1	0-0.5
E11-151	S2	0.5-2.0
E11-151	S3	2.0-5.0
E11-151	S4	5.0-7.85
E11-152	S1	0-0.5
E11-152	S2	0.5-2.0
E11-152	S3	2.0-5.0
E11-153	S1	0.3-0.8
E11-153	S2	0.8-2.3
E11-153	S3	2.3-5.3
E11-153	S4	5.3-10.0

Table 2. Soil Test Methods

Parameter	Number of Analytes	Method: Preparation / Analysis	Description
Dioxins and furans	17	3540C	Soxhlet Extraction
		8290A	High-resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS)
Chlorinated herbicides	5	3541	Automated Soxhlet Extraction
		8151A	GC-MS Using Methylation Derivatization
OC pesticides	22	3541	Automated Soxhlet Extraction
		8081B	GC-Electron Capture Detector
OP pesticides	27	3546	Microwave Extraction
		8141B	GC-Flame Photometric Detector
VOCs	67	5035	Closed System Purge and Trap
		8260B	GC/MS
SVOCs	59	3541	Automated Soxhlet Extraction
		8270D	GC/MS
RCRA Metals (total)	8	3050B	Acid Digestion
		6010C	Inductively Coupled Plasma-Atomic Emission Spectrometry
		7471B mercury	Cold Vapor Technique

Table 3. Summary of Dioxin/Furan Results for Phase I Soil Samples

No		Borehole →	E11-114	E11-114	E11-114	E11-114	E11-115	E11-115	E11-115	E11-115	E11-116	E11-116
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte↓	Depth, m →	0~0.5	~2.0	~5.0	~8.4	0~0.5	~2.0	~5.0	~9.4	0~0.5	~2.0
1	2,3,7,8-TCDD	pg/g	ND	ND	0.099 J EMPC	0.174 J EMPC	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	0.187 J	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	1.05 J	2.44	2.25 J	0.534 J EMPC	0.381 J EMPC	0.748 J	0.63 J	0.262 J EMPC	0.43 J	1.72 J
7	OCDD	pg/g	25	33.1	76.4	8.67	13.1	26.3	20.1	7.65 EMPC	9.74	37.8
8	2,3,7,8-TCDF	pg/g	ND	ND	0.798 N	0.806 N	0.639 N	0.563 N	0.348 J	0.972 N	0.753 N	0.708 N
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	0.038 J EMPC	ND	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	0.103 J	0.085 J EMPC	ND	0.06 J EMPC	ND	ND	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	0.338 J	0.317 J EMPC	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	0.264 J	0.264 J EMPC	0.105 J	ND	ND	ND	ND	ND	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	0.151 J	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	0.292 J EMPC	0.133 J EMPC	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	0.507 J	1.14 J	0.239 J EMPC	ND	ND	0.195 J EMPC	ND	ND	ND	0.475 J
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	1.07 J	0.437 J	ND	ND	ND	ND	ND	ND	1.32 J
	WHO-2005 TEQ (ND=0), pg/g		*0.08327*	*0.13335*	*0.31514*	*0.28798*	*0.07164*	*0.09286*	*0.04713*	*0.10212*	*0.08252*	*0.10449*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-116	E11-116	E11-117	E11-117	E11-117	E11-117	E11-118	E11-118	E11-118	E11-118
		Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte↓	Depth, m →	~5.0	~9.7	0~0.5	~2.0	~5.0	~10.0	0~0.5	~2.0	~5.0	~8.9
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	0.231 J	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	0.548 J	ND	0.77 J	1.27 J	0.451 J EMPC	ND	0.645 J	0.976 J	0.86 J	0.476 J EMPC
7	OCDD	pg/g	14.8	7.94	16.1	72.5	11.4	8.17	10.3	10.3	27.2	3.42 J EMPC
8	2,3,7,8-TCDF	pg/g	0.693	0.932	0.457 J EMPC	0.309 J EMPC	ND	0.221 J EMPC	1.4	0.303 J EMPC	ND	1.26
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	0.223 J EMPC	ND	ND	ND	0.975 J	0.811 J EMPC	0.237 J EMPC	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	ND	1.11 J EMPC	1.04 J EMPC	0.31 J EMPC	0.184 J EMPC
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	2.22 J	2.3 J EMPC	0.592 J	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	0.119 J EMPC	ND	ND	ND	1.84 J	1.59 J	0.569 J	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	0.221 J EMPC	ND	ND	ND	0.718 J EMPC	0.952 J EMPC	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	0.162 J EMPC	ND	ND	ND	1.12 J	1.14 J	0.337 J	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	0.455 J EMPC	0.166 J EMPC	0.143 J EMPC	ND	4.12	5.04	1.2 J EMPC	0.583 J
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	1.24 J	1.24 J EMPC	ND	ND
17	OCDF	pg/g	ND	ND	1.48 J	ND	ND	ND	1.92 J EMPC	3.36 J	0.89 J EMPC	1.4 J
	WHO-2005 TEQ (ND=0), pg/g		*0.07922*	*0.09558*	*0.14321*	*0.06701*	*0.00936*	*0.02455*	*1.15577*	*1.04149*	*0.27894*	*0.19324*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-119	E11-119	E11-119	E11-119	E11-120	E11-120	E11-120	E11-121	E11-121	E11-122
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	0.1~0.6	~2.0	~5.0	~7.9	0~0.5	~2.0	~3.3	0~0.5	~2.7	0~0.5
1	2,3,7,8-TCDD	pg/g	ND	0.148 J EMPC	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	0.107 J EMPC	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.261 J
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	0.613 J EMPC	2.5 J	0.52 J EMPC	0.659 J EMPC	0.372 J EMPC	0.315 J EMPC	ND	1.74 J	0.287 J	11.9
7	OCDD	pg/g	11.3	79	18.6	16.6	4.03 J	5.14	6.27	37.4	15.9	116
8	2,3,7,8-TCDF	pg/g	ND	ND	ND	ND	0.357 J EMPC	0.336 J	0.225 J EMPC	0.316 J	0.246 J EMPC	0.454 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	0.136 J	ND	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	0.088 J	ND	0.185 J EMPC	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	0.193 J EMPC	0.156 J	ND	0.104 J	ND	ND	ND	0.22 J
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	0.189 J	0.15 J EMPC	ND	0.107 J EMPC	ND	ND	ND	0.208 J
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	0.182 J	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	0.358 J	0.593 J	0.339 J	0.218 J	ND	0.27 J EMPC	ND	0.925 J	ND	1.25 J
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	ND	ND	0.784 J	ND	1.5 J	ND	2.95 J
	WHO-2005 TEQ (ND=0), pg/g		*0.01310*	*0.20263*	*0.05237*	*0.04435*	*0.04063*	*0.21807*	*0.02438*	*0.12542*	*0.03224*	*0.28149*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-122	E11-122	E11-122	E11-123	E11-123	E11-123	E11-123	E11-124	E11-124	E11-124
		Sample ID →	S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	~9.3	0~0.5	~2.0	~5.0	~7.7	0~0.5	~2.0	~5.0
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	ND	ND	0.11 J EMPC	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	ND	ND	0.273 J EMPC	2.69	ND	ND	ND	1.24 J	0.395 J EMPC	0.439 J EMPC
7	OCDD	pg/g	1.99 J EMPC	1.18 J	9.64	21.2	3.76 J	3.14 J	0.855 J	23.1	4.74 J	10
8	2,3,7,8-TCDF	pg/g	0.334 J	0.202 J	0.253 J EMPC	0.251 J EMPC	0.299 J EMPC	0.381 J EMPC	0.253 J EMPC	ND	ND	ND
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	0.09 J EMPC	ND	ND	ND	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	ND	0.09 J	ND	ND	0.078 J EMPC	ND	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.161 J EMPC	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.118 J EMPC	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	0.172 J EMPC	0.838 J	ND	ND	0.269 J	0.484 J	0.291 J EMPC	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	0.941 J EMPC	ND	ND	ND	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.03400*	*0.02055*	*0.03264*	*0.09676*	*0.03103*	*0.14904*	*0.05156*	*0.02417*	*0.03618*	*0.00739*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-124	E11-125	E11-125	E11-126	E11-126	E11-127	E11-127	E11-128	E11-128	E11-129
		Sample ID →	S4	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	~7.35	0~0.5	~1.56	0~0.5	~1.83	0~0.5	~2.32	0~0.5	~3.2	0~0.76
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	0.189 J EMPC	ND	ND	ND	ND	ND	0.15 J EMPC
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	0.173 J EMPC	ND	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	0.253 J EMPC	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	0.212 J EMPC	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	0.353 J EMPC	ND	0.346 J EMPC	8.68	ND	0.437 J	0.224 J EMPC	2.19 J	ND	0.389 J EMPC
7	OCDD	pg/g	3.44 J	2.24 J	11.8	82.9	2.29 J	6.71	8.32	22.6	2 J	17.9
8	2,3,7,8-TCDF	pg/g	ND	0.286 J EMPC	0.29 J	0.35 J	0.414 J	0.288 J	0.426 J EMPC	0.304 J EMPC	0.253 J EMPC	0.442 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	0.07 J EMPC	ND	ND	ND	ND	ND	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	0.203 J	ND	ND	ND	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	0.19 J EMPC	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	0.13 J EMPC	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	ND	2.31 J	0.237 J EMPC	ND	ND	0.56 J	ND	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	5.87	1.04 J	ND	ND	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.00456*	*0.02927*	*0.05700*	*0.40703*	*0.27007*	*0.03518*	*0.04734*	*0.06468*	*0.02590*	*0.20346*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-130	E11-131	E11-131	E11-132	E11-132	E11-133	E11-133	E11-134	E11-134	E11-135
		Sample ID →	S1	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	0~1.22	0.12~0.5	~1.7	0.1~0.6	~3.0	0.15~0.65	~2.46	0~0.5	~1.51	0~0.5
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	0.164 J EMPC	ND	ND	ND	ND	ND	ND	0.189 J EMPC	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	0.169 J EMPC	ND	ND	ND	ND	ND	ND	0.916 J	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	0.221 J EMPC	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	2.96	ND	0.706 J	0.513 J	0.977 J EMPC	1.61 J	0.305 J EMPC	21.2	0.734 J	1.79 J
7	OCDD	pg/g	32.8	6.76	11.5	18	11.8	24.8	19.7	254	25	45.1
8	2,3,7,8-TCDF	pg/g	0.262 J EMPC	0.448 J	0.348 J	0.304 J	0.377 J	0.347 J	0.28 J EMPC	0.297 J EMPC	0.257 J	0.32 J
9	1,2,3,7,8-PeCDF	pg/g	0.141 J EMPC	ND	ND	ND	ND	ND	ND	0.233 J	0.188 J	ND
10	2,3,4,7,8-PeCDF	pg/g	0.121 J EMPC	ND	ND	ND	ND	0.09 J EMPC	ND	0.257 J EMPC	0.098 J	ND
11	1,2,3,4,7,8-HxCDF	pg/g	0.125 J EMPC	ND	ND	ND	ND	ND	ND	0.295 J	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	0.147 J EMPC	ND	ND	ND	ND	ND	ND	0.293 J	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	0.127 J	ND	ND	ND	ND	ND	ND	0.289 J EMPC	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	1.22 J	ND	ND	ND	0.259 J EMPC	0.394 J	ND	5.99	ND	0.395 J EMPC
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	3.28 J	ND	ND	ND	ND	0.879 J EMPC	ND	25.1	ND	0.541 J
	WHO-2005 TEQ (ND=0), pg/g		*0.35625*	*0.04683*	*0.04531*	*0.04093*	*0.05360*	*0.08932*	*0.03696*	*0.83772*	*0.07546*	*0.06694*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-135	E11-135	E11-135	E11-136	E11-136	E11-137	E11-137	E11-137	E11-137	E11-138
		Sample ID →	S2	S3	S4	S1	S2	S1	S2	S3	S4	S1
	Analyte↓	Depth, m →	~2.0	~5.0	~7.65	0~0.5	~3.2	0~0.5	~2.0	~5.0	~6.75	0.4~0.9
1	2,3,7,8-TCDD	pg/g	ND	ND	0.149 J EMPC	ND	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044 J EMPC
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	3.89	5.93	0.3 J	0.473 J EMPC	ND	0.608 J	0.994 J	0.469 J	ND	0.205 J
7	OCDD	pg/g	224	269	2.42 J	11.3	2.4 J	22.7	37	19	ND	3.71 J
8	2,3,7,8-TCDF	pg/g	ND	0.31 J EMPC	0.309 J EMPC	0.323 J	0.2 J EMPC	0.223 J	0.245 J	0.333 J	0.255 J	0.257 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	ND	0.05 J EMPC	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	0.072 J EMPC	0.088 J	0.15 J	0.064 J EMPC	ND	0.078 J EMPC	ND	ND	0.08 J
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	0.07 J EMPC	ND	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	ND	0.186 J EMPC	ND	0.302 J	ND	0.11 J EMPC	ND	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.10610*	*0.19263*	*0.21000*	*0.08728*	*0.03995*	*0.03821*	*0.07752*	*0.04479*	*0.02550*	*0.09715*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-138	E11-139	E11-139	E11-139	E11-140	E11-140	E11-140	E11-141	E11-141	E11-141
		Sample ID →	S2	S1	S2	S3	S1	S2	S3	S1	S2	S3
	Analyte↓	Depth, m →	~2.22	0~0.5	~2.0	~3.66	0~0.5	~2.0	~3.0	0.3~0.8	~2.3	~5.3
1	2,3,7,8-TCDD	pg/g	ND	0.109 J EMPC	ND	0.094 J EMPC	ND	ND	ND	ND	0.088 J EMPC	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	0.094 J	1.61 J	0.59 J EMPC	0.414 J	1.03 J	0.793 J	0.402 J EMPC	0.522 J	1.77 J	0.942 J
7	OCDD	pg/g	1.71 J	35.1	18.2	12.2	50.9	17.8	24.4	17.6	48.5	35.4
8	2,3,7,8-TCDF	pg/g	0.222 J EMPC	0.215 J	0.549	0.221 J	0.322 J EMPC	0.338 J EMPC	0.302 J EMPC	0.3 J	0.357 J EMPC	0.336 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	0.032 J	ND	ND	ND	ND	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	0.062 J	0.096 J EMPC	0.105 J EMPC	ND	ND	ND	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	0.056 J	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	0.515 J	0.204 J EMPC	ND	0.25 J EMPC	0.437 J	ND	ND	0.444 J EMPC	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	0.841 J	ND	ND	ND	1.35 J	ND	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.02365*	*0.16253*	*0.08687*	*0.15320*	*0.09177*	*0.05185*	*0.04154*	*0.04614*	*0.16069*	*0.05364*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-141	E11-142	E11-142	E11-142	E11-143	E11-143	E11-143	E11-144	E11-144	E11-145
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	~7.2	0~0.5	~2.0	~4.73	0~0.5	~2.0	~3.55	0~0.5	~1.52	0~0.5
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.08 J EMPC	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	0.068 J EMPC	ND	ND	0.061 J EMPC	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	ND	0.628 J	0.56 J EMPC	ND	0.292 J EMPC	0.45 J	0.317 J EMPC	0.739 J	0.522 J	0.61 J
7	OCDD	pg/g	4.87 J	33.9	18.9	5.56	11	22.5 EMPC	7.03	21.5	21.8	20.8
8	2,3,7,8-TCDF	pg/g	0.332 J EMPC	0.306 J EMPC	0.246 J EMPC	0.245 J	0.17 J	0.18 J	0.213 J	0.189 J EMPC	0.264 J	0.352 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	0.057 J	ND	0.049 J EMPC	ND	0.04 J EMPC	0.086 J EMPC	ND
10	2,3,4,7,8-PeCDF	pg/g	0.08 J EMPC	ND	ND	ND	ND	0.084 J EMPC	0.053 J	0.042 J	0.082 J EMPC	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.033 J EMPC	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.059 J	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.096 J	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.05 J	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.203 J	0.131 J
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	0.598 J	0.73 J EMPC
	WHO-2005 TEQ (ND=0), pg/g		*0.05851*	*0.04705*	*0.03587*	*0.02789*	*0.02322*	*0.12408*	*0.04254*	*0.04647*	*0.23282*	*0.04907*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-145	E11-145	E11-146	E11-146	E11-146	E11-147	E11-147	E11-148	E11-148	E11-148
		Sample ID →	S2	S3	S1	S2	S3	S1	S2	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	0~0.5	~2.0	~4.85	0~0.5	~1.97	0.3~0.8	~2.3	~5.8
1	2,3,7,8-TCDD	pg/g	ND	ND	0.093 J EMPC	ND	ND	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	0.085 J EMPC	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	0.058 J	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	0.622 J	0.99 J	0.894 J	1.98 J	ND	0.754 J EMPC	ND	0.749 J	0.875 J	ND
7	OCDD	pg/g	25.6	50.8	28.4	31.6	ND	22.6	4.37 J	30.8	43.1	32.8
8	2,3,7,8-TCDF	pg/g	0.29 J EMPC	0.319 J	0.258 J	0.281 J EMPC	0.223 J EMPC	0.322 J	0.211 J	0.284 J EMPC	0.317 J	0.316 J
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	0.091 J EMPC	0.168 J	0.149 J
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	0.085 J EMPC	0.129 J	0.2 J EMPC
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	0.121 J EMPC	ND	ND	ND	0.127 J EMPC
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.115 J EMPC
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	ND	ND	0.296 J	0.784 J	ND	0.309 J	ND	0.158 J EMPC	0.218 J EMPC	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	1.34 J	ND	ND	ND	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.04290*	*0.05704*	*0.13892*	*0.06562*	*0.02230*	*0.06171*	*0.02241*	*0.16572*	*0.09930*	*0.13011*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-149	E11-149	E11-149	E11-150	E11-150	E11-150	E11-150	E11-151	E11-151	E11-151
		Sample ID →	S1	S2	S3	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	0~0.5	~2.0	~3.6	0~0.5	~2.0	~5.0	~7.0	0~0.5	~2.0	~5.0
1	2,3,7,8-TCDD	pg/g	ND	ND	ND	ND	0.158 J EMPC	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	0.041 J EMPC	ND	ND	ND	ND	ND	ND	0.199 J EMPC	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	1.08 J	0.384 J	0.456 J EMPC	0.759 J EMPC	1.07 J EMPC	1.22 J	17.8	0.812 J EMPC	0.416 J EMPC	1.32 J
7	OCDD	pg/g	24.8	8.36	8.88 J EMPC	24.4	37.5	50.9	524	16.2	18.4	35.7
8	2,3,7,8-TCDF	pg/g	0.39 J	0.311 J EMPC	0.417 J	0.229 J EMPC	0.345 J	0.454 J EMPC	0.294 J EMPC	0.402 J EMPC	0.344 J EMPC	0.269 J
9	1,2,3,7,8-PeCDF	pg/g	ND	0.068 J EMPC	0.226 J EMPC	ND	ND	ND	ND	0.201 J	ND	ND
10	2,3,4,7,8-PeCDF	pg/g	0.066 J	0.072 J EMPC	0.17 J EMPC	ND	ND	ND	ND	ND	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	0.05 J	ND	ND	ND	ND	ND	0.196 J EMPC	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	0.072 J	ND	0.084 J	ND	ND	ND	0.157 J	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	0.037 J	ND	ND	ND	ND	ND	0.142 J	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	0.193 J	0.102 J EMPC	ND	0.318 J	ND	ND	ND	0.415 J	ND	0.494 J EMPC
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	0.618 J	ND	0.725 J	ND	ND	ND	ND	ND	ND	0.986 J
	WHO-2005 TEQ (ND=0), pg/g		*0.12017*	*0.07779*	*0.10542*	*0.04936*	*0.21445*	*0.07287*	*0.36460*	*0.31186*	*0.04408*	*0.05605*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 3. Continued

No		Borehole →	E11-151	E11-152	E11-152	E11-152	E11-153	E11-153	E11-153	E11-153
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S4
	Analyte↓	Depth, m →	~7.85	0~0.5	~2.0	~5.0	0.3~0.8	~2.3	~5.3	~10.0
1	2,3,7,8-TCDD	pg/g	ND	0.094 J EMPC	0.113 J EMPC	ND	ND	ND	ND	ND
2	1,2,3,7,8-PeCDD	pg/g	ND	ND	ND	ND	ND	0.071	ND	ND
3	1,2,3,4,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
4	1,2,3,6,7,8-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
5	1,2,3,7,8,9-HxCDD	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
6	1,2,3,4,6,7,8-HpCDD	pg/g	ND	1.65 J	2.71	1.13 J	1.73 J	0.92 J	0.758 J	2.62 J
7	OCDD	pg/g	4.31 J	57	130	41	42.3	38.4	25.3	135
8	2,3,7,8-TCDF	pg/g	0.316 J EMPC	0.339 J	0.473 J	0.333 J	0.451 J	0.291 J EMPC	0.325 J EMPC	0.333 J EMPC
9	1,2,3,7,8-PeCDF	pg/g	ND	ND	ND	ND	ND	0.081 J EMPC	0.045 J EMPC	ND
10	2,3,4,7,8-PeCDF	pg/g	ND	ND	0.047	ND	ND	0.083	ND	ND
11	1,2,3,4,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	0.063 J EMPC	ND	ND
12	1,2,3,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	0.067 J	ND	ND
13	1,2,3,7,8,9-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
14	2,3,4,6,7,8-HxCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
15	1,2,3,4,6,7,8-HpCDF	pg/g	0.32 J	ND	0.102 J EMPC	ND	0.208 J EMPC	ND	ND	ND
16	1,2,3,4,7,8,9-HpCDF	pg/g	ND	ND	ND	ND	ND	ND	ND	ND
17	OCDF	pg/g	ND	ND	ND	ND	0.286 J	ND	ND	ND
	WHO-2005 TEQ (ND=0), pg/g		*0.03609*	*0.16160*	*0.24149*	*0.05690*	*0.07726*	*0.16087*	*0.04901*	*0.10000*

NOTES:

J: Estimated amount detected between detection limit and reporting limit

EMPC: Estimated maximum possible concentration due to ion raio failure

N: Tentative detection (qualitative uncertainty)

Table 4. Summary of Chlorinated Herbicide Results for Phase I Soil Samples

No		Borehole →	E11-114	E11-114	E11-114	E11-114	E11-115	E11-115	E11-115	E11-115	E11-116	E11-116
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte↓	Depth, m →	0~0.5	~2.0	~5.0	~8.4	0~0.5	~2.0	~5.0	~9.4	0~0.5	~2.0
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:
ND: Not detected

Table 4. Continued

No		Borehole →	E11-116	E11-116	E11-117	E11-117	E11-117	E11-117	E11-118	E11-118	E11-118	E11-118
		Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte↓	Depth, m →	~5.0	~9.7	0~0.5	~2.0	~5.0	~10.0	0~0.5	~2.0	~5.0	~8.9
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-119	E11-119	E11-119	E11-119	E11-120	E11-120	E11-120	E11-121	E11-121	E11-122
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	0.1~0.6	~2.0	~5.0	~7.9	0~0.5	~2.0	~3.3	0~0.5	~2.7	0~0.5
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-122	E11-122	E11-122	E11-123	E11-123	E11-123	E11-123	E11-124	E11-124	E11-124
		Sample ID →	S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	~9.3	0~0.5	~2.0	~5.0	~7.7	0~0.5	~2.0	~5.0
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-124	E11-125	E11-125	E11-126	E11-126	E11-127	E11-127	E11-128	E11-128	E11-129
		Sample ID →	S4	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	~7.35	0~0.5	~1.56	0~0.5	~1.83	0~0.5	~2.32	0~0.5	~3.2	0~0.76
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:
ND: Not detected

Table 4. Continued

No		Borehole →	E11-130	E11-131	E11-131	E11-132	E11-132	E11-133	E11-133	E11-134	E11-134	E11-135
		Sample ID →	S1	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	0~1.22	0.12~0.5	~1.7	0.1~0.6	~3.0	0.15~0.65	~2.46	0~0.5	~1.51	0~0.5
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-135	E11-135	E11-135	E11-136	E11-136	E11-137	E11-137	E11-137	E11-137	E11-138
		Sample ID →	S2	S3	S4	S1	S2	S1	S2	S3	S4	S1
	Analyte↓	Depth, m →	~2.0	~5.0	~7.65	0~0.5	~3.2	0~0.5	~2.0	~5.0	~6.75	0.4~0.9
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-138	E11-139	E11-139	E11-139	E11-140	E11-140	E11-140	E11-141	E11-141	E11-141
		Sample ID →	S2	S1	S2	S3	S1	S2	S3	S1	S2	S3
	Analyte ↓	Depth, m →	~2.22	0~0.5	~2.0	~3.66	0~0.5	~2.0	~3.0	0.3~0.8	~2.3	~5.3
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-141	E11-142	E11-142	E11-142	E11-143	E11-143	E11-143	E11-144	E11-144	E11-145
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	~7.2	0~0.5	~2.0	~4.73	0~0.5	~2.0	~3.55	0~0.5	~1.52	0~0.5
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-145	E11-145	E11-146	E11-146	E11-146	E11-147	E11-147	E11-148	E11-148	E11-148
		Sample ID →	S2	S3	S1	S2	S3	S1	S2	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	0~0.5	~2.0	~4.85	0~0.5	~1.97	0.3~0.8	~2.3	~5.8
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-149	E11-149	E11-149	E11-150	E11-150	E11-150	E11-150	E11-151	E11-151	E11-151
		Sample ID →	S1	S2	S3	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	0~0.5	~2.0	~3.6	0~0.5	~2.0	~5.0	~7.0	0~0.5	~2.0	~5.0
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 4. Continued

No		Borehole →	E11-151	E11-152	E11-152	E11-152	E11-153	E11-153	E11-153	E11-153
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S4
	Analyte↓	Depth, m →	~7.85	0~0.5	~2.0	~5.0	0.3~0.8	~2.3	~5.3	~10.0
1	2,4,5-T	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
2	2,4,5-TP (Silvex)	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
3	2,4'-D	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
4	2,4-DB	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
5	Dicamba	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:
ND: Not detected

Table 5. Summary of Organochlorine Pesticide Results for Phase I Soil Samples

No		Borehole →	E11-114	E11-114	E11-114	E11-114	E11-115	E11-115	E11-115	E11-115	E11-116	E11-116
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte↓	Depth, m →	0~0.5	~2.0	~5.0	~8.4	0~0.5	~2.0	~5.0	~9.4	0~0.5	~2.0
1	4,4'-DDD	µg/kg	ND	0.483 J	ND	1.37 J	ND	1.9 J	ND	ND	ND	4.99 J
2	4,4'-DDE	µg/kg	ND	1.95 J	ND	ND	ND	3.19 J	ND	ND	1.73 J	4.43 J
3	4,4'-DDT	µg/kg	1.79 J	6.74 J	ND	ND	ND	ND	ND	ND	ND	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND R	ND R	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-116	E11-116	E11-117	E11-117	E11-117	E11-117	E11-118	E11-118	E11-118	E11-118
		Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte↓	Depth, m →	~5.0	~9.7	0~0.5	~2.0	~5.0	~10.0	0~0.5	~2.0	~5.0	~8.9
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	ND	ND	ND	10700 J	147 J	1.84 J
2	4,4'-DDE	µg/kg	ND	ND	ND	0.787 J	ND	ND	1.14 J	ND	ND	ND
3	4,4'-DDT	µg/kg	ND	ND	ND	ND	ND	ND	2.19 J	2990 J	64.3 J	1.45 J
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	4880 J	52.1 J	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND R	ND R	ND R	ND R
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	5360 J	59.2 J	0.933 J
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	0.571 J	163000	935	4.26 J
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	0.858 J	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-119	E11-119	E11-119	E11-119	E11-120	E11-120	E11-120	E11-121	E11-121	E11-122
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	0.1~0.6	~2.0	~5.0	~7.9	0~0.5	~2.0	~3.3	0~0.5	~2.7	0~0.5
1	4,4'-DDD	µg/kg	ND	32.3	0.809 J	ND	ND	ND	ND	34.9 J	ND	ND
2	4,4'-DDE	µg/kg	0.755 J	5.23 J	ND	ND	ND	ND	ND	39 J	ND	ND
3	4,4'-DDT	µg/kg	3.17 J	11.4	ND	0.581 J	ND	ND	ND	450	ND	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND R	ND R	ND R	ND R	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	1.65 J	1.1 J	0.636 J	ND	ND	ND	ND	2.2 J	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-122	E11-122	E11-122	E11-123	E11-123	E11-123	E11-123	E11-124	E11-124	E11-124
		Sample ID →	S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	~9.3	0~0.5	~2.0	~5.0	~7.7	0~0.5	~2.0	~5.0
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	ND	ND	ND	3.81 J	ND	ND
2	4,4'-DDE	µg/kg	ND	ND	ND	ND	ND	ND	ND	8.76 J	ND	ND
3	4,4'-DDT	µg/kg	ND	ND	ND	ND	ND	ND	ND	36.4	ND	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	0.743 J	2730 J	53.5 J
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND R	ND R	ND R
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	0.63 J	3530 J	61.3 J
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	13.5	46100	1130
18	gamma Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-124	E11-125	E11-125	E11-126	E11-126	E11-127	E11-127	E11-128	E11-128	E11-129
		Sample ID →	S4	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	~7.35	0~0.5	~1.56	0~0.5	~1.83	0~0.5	~2.32	0~0.5	~3.2	0~0.76
1	4,4'-DDD	µg/kg	ND	ND	ND	2.11 J	ND	ND	ND	ND	ND	ND
2	4,4'-DDE	µg/kg	ND	ND	ND	3.4 J	ND	ND	ND	3.42 J	ND	ND
3	4,4'-DDT	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	22.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND R	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	43.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	728	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-130	E11-131	E11-131	E11-132	E11-132	E11-133	E11-133	E11-134	E11-134	E11-135
		Sample ID →	S1	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	0~1.22	0.12~0.5	~1.7	0.1~0.6	~3.0	0.15~0.65	~2.46	0~0.5	~1.51	0~0.5
1	4,4'-DDD	µg/kg	ND	21.8 N	9.32 J	1.73 J	440	ND	ND	ND	ND	ND
2	4,4'-DDE	µg/kg	ND	28.7 J	5.87 J	19.7	ND	6.01 J	ND	ND	ND	ND
3	4,4'-DDT	µg/kg	ND	325	41.1	30.4	229	7.17 J	ND	4.04 J	6.01 J	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	0.918 J	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	0.712 J	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	237	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-135	E11-135	E11-135	E11-136	E11-136	E11-137	E11-137	E11-137	E11-137	E11-138
		Sample ID →	S2	S3	S4	S1	S2	S1	S2	S3	S4	S1
	Analyte↓	Depth, m →	~2.0	~5.0	~7.65	0~0.5	~3.2	0~0.5	~2.0	~5.0	~6.75	0.4~0.9
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	4,4'-DDE	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	4,4'-DDT	µg/kg	ND	ND	ND	ND	ND	ND	2.35 J	2.56 J	1.69 J	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-138	E11-139	E11-139	E11-139	E11-140	E11-140	E11-140	E11-141	E11-141	E11-141
		Sample ID →	S2	S1	S2	S3	S1	S2	S3	S1	S2	S3
	Analyte↓	Depth, m →	~2.22	0~0.5	~2.0	~3.66	0~0.5	~2.0	~3.0	0.3~0.8	~2.3	~5.3
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	ND	1.92 J	ND	2.22 J	2.15 J	ND
2	4,4'-DDE	µg/kg	ND	ND	ND	ND	6.38 J	2.76 J	ND	ND	7.98 J	ND
3	4,4'-DDT	µg/kg	ND	ND	ND	ND	25.3	ND	ND	20.6	18	1.89 J
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-141	E11-142	E11-142	E11-142	E11-143	E11-143	E11-143	E11-144	E11-144	E11-145
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	~7.2	0~0.5	~2.0	~4.73	0~0.5	~2.0	~3.55	0~0.5	~1.52	0~0.5
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	ND	ND	ND	1.82 J	ND	10.4 N
2	4,4'-DDE	µg/kg	ND	2.09 J	ND	ND	ND	ND	ND	1.53 J	ND	21 J
3	4,4'-DDT	µg/kg	1.49 J	ND	ND	ND	ND	ND	ND	4.61 J	ND	137
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-145	E11-145	E11-146	E11-146	E11-146	E11-147	E11-147	E11-148	E11-148	E11-148
		Sample ID →	S2	S3	S1	S2	S3	S1	S2	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	0~0.5	~2.0	~4.85	0~0.5	~1.97	0.3~0.8	~2.3	~5.8
1	4,4'-DDD	µg/kg	96 N	4.56 J	7.36 J	ND	ND	ND	ND	3.27 J	30.9 J	ND
2	4,4'-DDE	µg/kg	68.9 J	3.85 J	ND	4.78 J	ND	1.55 J	ND	ND	15.4 J	ND
3	4,4'-DDT	µg/kg	1110	31	107	14.7	ND	ND	ND	4.92 J	134	3.43 J
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	1.57 J	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-149	E11-149	E11-149	E11-150	E11-150	E11-150	E11-150	E11-151	E11-151	E11-151
		Sample ID →	S1	S2	S3	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	0~0.5	~2.0	~3.6	0~0.5	~2.0	~5.0	~7.0	0~0.5	~2.0	~5.0
1	4,4'-DDD	µg/kg	12.8 J	ND	ND	ND	ND	1.23 J	ND	1.21 J	ND	20.3
2	4,4'-DDE	µg/kg	23.4 J	2.86 J	ND	ND	1.3 J	ND	ND	3.51 J	ND	10 J
3	4,4'-DDT	µg/kg	114	19.2	5.43 J	1.87 J	4.18 J	ND	ND	10.5	9.53 J	35.4
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	gamma Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 5. Continued

No		Borehole →	E11-151	E11-152	E11-152	E11-152	E11-153	E11-153	E11-153	E11-153
		Sample ID →	S4	S1	S2	S3	S1	S2	S3	S4
	Analyte↓	Depth, m →	~7.85	0~0.5	~2.0	~5.0	0.3~0.8	~2.3	~5.3	~10.0
1	4,4'-DDD	µg/kg	ND	ND	ND	ND	14.1 J	ND	ND	ND
2	4,4'-DDE	µg/kg	ND	10.5	ND	ND	23.6 J	ND	1.42 J	ND
3	4,4'-DDT	µg/kg	ND	58.8	ND	ND	62.7 N	ND	ND	ND
4	Aldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
5	alpha-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
6	alpha-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
7	beta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
8	Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
9	delta-BHC	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
10	Dieldrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
11	Endosulfan I	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
12	Endosulfan II	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
13	Endosulfan sulfate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
14	Endrin	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
15	Endrin aldehyde	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
16	Endrin ketone	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
17	gamma-BHC (Lindane)	µg/kg	ND	ND	ND	ND	7.68 J	ND	ND	ND
18	gamma-Chlordane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
19	Heptachlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
20	Heptachlor epoxide	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
21	Methoxychlor	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND
22	Toxaphene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

J: Estimated amount between the detection limit and reporting limit

N: Tentative detection (qualitative uncertainty)

R: Rejected

Table 6. Summary of Organophosphorus Pesticide Results for Phase I Soil Samples

No		Borehole →	E11-114	E11-114	E11-114	E11-114	E11-115	E11-115	E11-115	E11-115	E11-116	E11-116
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2
	Analyte↓	Depth, m →	0~0.5	~2.0	~5.0	~8.4	0~0.5	~2.0	~5.0	~9.4	0~0.5	~2.0
1	Bolstar	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	Chlorpyrifos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	Coumaphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Demeton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Diazinon	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	Dichlorvos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	Dimethoate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Disulfoton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	EPN	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Ethoprop	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Ethyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Fensulfothion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Fenthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Malathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Methyl Azinphos(Guthion)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Methyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	Merphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	Mevinphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Monocrotophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Naled	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Phorate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Ronnel	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	Sulfotep	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	Stirophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	TEPP	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Tokuthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Trichloronate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 6. Continued

No		Borehole →	E11-116	E11-116	E11-117	E11-117	E11-117	E11-117	E11-118	E11-118	E11-118	E11-118
		Sample ID →	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
	Analyte↓	Depth, m →	~5.0	~9.7	0~0.5	~2.0	~5.0	~10.0	0~0.5	~2.0	~5.0	~8.9
1	Bolstar	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	Chlorpyrifos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	Coumaphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Demeton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Diazinon	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	Dichlorvos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	Dimethoate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Disulfoton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	EPN	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Ethoprop	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Ethyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Fensulfothion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Fenthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Malathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Methyl Azinphos(Guthion)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Methyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	Merphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	Mevinphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Monocrotophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Naled	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Phorate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Ronnel	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	Sulfotep	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	Stirophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	TEPP	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Tokuthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Trichloronate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 6. Continued

No		Borehole →	E11-119	E11-119	E11-119	E11-119	E11-120	E11-120	E11-120	E11-121	E11-121	E11-122
		Sample ID →	S1	S2	S3	S4	S1	S2	S3	S1	S2	S1
	Analyte↓	Depth, m →	0.1~0.6	~2.0	~5.0	~7.9	0~0.5	~2.0	~3.3	0~0.5	~2.7	0~0.5
1	Bolstar	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	Chlorpyrifos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	Coumaphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Demeton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Diazinon	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	Dichlorvos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	Dimethoate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Disulfoton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	EPN	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Ethoprop	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Ethyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Fensulfothion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Fenthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Malathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Methyl Azinphos(Guthion)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Methyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	Merphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	Mevinphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Monocrotophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Naled	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Phorate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Ronnel	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	Sulfotep	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	Stirophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	TEPP	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Tokuthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Trichloronate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 6. Continued

No		Borehole →	E11-122	E11-122	E11-122	E11-123	E11-123	E11-123	E11-123	E11-124	E11-124	E11-124
		Sample ID →	S2	S3	S4	S1	S2	S3	S4	S1	S2	S3
	Analyte↓	Depth, m →	~2.0	~5.0	~9.3	0~0.5	~2.0	~5.0	~7.7	0~0.5	~2.0	~5.0
1	Bolstar	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	Chlorpyrifos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	Coumaphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Demeton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Diazinon	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	Dichlorvos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	Dimethoate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Disulfoton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	EPN	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Ethoprop	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Ethyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Fensulfothion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Fenthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Malathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Methyl Azinphos(Guthion)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Methyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	Merphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	Mevinphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Monocrotophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Naled	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Phorate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Ronnel	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	Sulfotep	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	Stirophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	TEPP	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Tokuthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Trichloronate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected

Table 6. Continued

No		Borehole →	E11-124	E11-125	E11-125	E11-126	E11-126	E11-127	E11-127	E11-128	E11-128	E11-129
		Sample ID →	S4	S1	S2	S1	S2	S1	S2	S1	S2	S1
	Analyte↓	Depth, m →	~7.35	0~0.5	~1.56	0~0.5	~1.83	0~0.5	~2.32	0~0.5	~3.2	0~0.76
1	Bolstar	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	Chlorpyrifos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	Coumaphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	Demeton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
5	Diazinon	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	Dichlorvos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7	Dimethoate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8	Disulfoton	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9	EPN	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
10	Ethoprop	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11	Ethyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12	Fensulfothion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13	Fenthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14	Malathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15	Methyl Azinphos(Guthion)	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	Methyl Parathion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17	Merphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18	Mevinphos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19	Monocrotophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20	Naled	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21	Phorate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22	Ronnel	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23	Sulfotep	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	Stirophos	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	TEPP	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	Tokuthion	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27	Trichloronate	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE:

ND: Not detected