Attachment 2
ISFSI Records Entry Form
(Page 1 of 1)

NUCLEAR PLANT RECORDS TRANSMITTAL		NPR USE ONLY CONTROL NO. m U.N. NO. 2483
DEPARTMENT OF ORIGIN **Site Closure**	RECORDS CLASSIFICATION (SEE INSTRUCTIONS): ☐ CONFIDENTIAL ☐ SAFEGUARDS ☐ QA RECORD	DATE: **6/27/06**
TFI #: **11.10**	TFI TITLE: **50.75g Release Records**	RETENTION (Ref. Attachment 1): **L(+)LP+10**

ISFSI: ☐ **Type 1 (Dual Storage)** ✓ **Type 2** ☐ **Type 3** (Ref. Attachment 1)

DESCRIPTION OF RECORDS (NOTE: USE MORE THAN ONE TRANSMITTAL IF REQUIRED)

Work Plan and Inspection Record, WPIR, 24265-000-GEN-5000-00137-000, Underslab Subsurface Soil Sampling, 2004 and 2005 Radiological Characterization Activity.

This submittal is only the following portion of this WPIR: ~~Mat Sump Ladder Ring,~~ Survey / Sampling Work Plan SSWP Number BCY-SSWP-05-12-001.

Search the database using the WPIR number in the title field to find indexing information on all other components of this WPIR.

CONTAINMENT BUILDING, MAT SUMP AND LADDER RING. AR 6/27/06

Special Instructions for OD processing: Optical Character Recognition (OCR) Required? ☐ YES ✓ NO

RECORDS ENTERED BY (PRINT NAME):	SUPERVISOR/PERSON ENTERING RECORDS (Signature):
AR Bejma/J. McCarthy	

RECEIPT (BY NPR)

DATE: 6/27/06	RECORDS ARE AS DESCRIBED BY ORIGINATOR: ☒ YES ☐ NO
CONDITION OF RECORDS: ☒ GOOD ☐ OTHER (Describe Below)	
RECEIVED AND ACCEPTED BY (SIGNATURE):	TEMPORARY FILE LOCATION NO.: NPR

PROCESSING (By NPR, Except for Adding 'Alternative Storage Ref.' As Applicable)

DATE PROCESSED	ASSIGNED OD NUMBER	SIGNATURE OF NPR PROCESSING PERSONNEL	ALTERNATIVE STORAGE REFERENCE	
			LOCATION	INDEXING REF. (IF ANY)
6/27/06	CY-034			

Survey/Sampling Work Plan

GENERAL SECTION

SSWP Number : SSWP-05-12-001

Survey Area: Structure #280

Type of Survey: Radiological Assessment

Area Description: Containment Building Mat Sump

DATA QUALITY OBJECTIVES (DQO)

1.0 STATE THE PROBLEM

The problem: Obtain the final characterization data in the Containment Building Mat Sump to support final status survey (FSS) planning and to meet the basement fill requirements for the License Termination Plan (LTP).

Stakeholders: The primary stakeholders interested in the answer to this problem are Connecticut Yankee, the CT Department of Environmental Protection (CTDEP) and the US Nuclear Regulatory Commission (USNRC).

The Planning Team: The planning team consisted of Site Closure group (SC) personnel. The primary decision maker for this plan was the Site Closure Technical Support Manager with input from SC group personnel.

Schedule: This project has an expected duration of two working days including scanning, drilling and sample collection.

Resources: The primary resources needed to determine the answer to the problem are divers, diver support personnel, two laborers, one health physics technician and one Site Closure engineer. Ancillary support will be needed from the offsite lab for sample preparation, gamma spectroscopy and Hard to Detect (HTD) radionuclide analysis.

2.0 IDENTIFY THE DECISION

The *following* decision needs to be defined to address the stated problem.

Principal Study Question: Is the radiological data obtained from sample analysis sufficient to adequately characterize the survey area?

Alternate Actions: Alternative actions include obtaining additional samples, performing additional analyses at an off-site facility to confirm gamma spectroscopy results and to identify and quantify hard-to-detect (HTD) radionuclides, and no action.

The Decision (1): Determine that the radiological data adequately characterizes the survey area. Consider additional sampling as necessary under a separate addendum to this sampling plan.

3.0 IDENTIFY THE INPUTS TO THE DECISION

Information Needed: Measurements of sample media are needed to identify and determine the concentration of those radionuclides that could potentially be present in the sub-grade portion of the Containment Building Mat Sump at the time of final radiological assessment. Information is needed to establish how much, if any, contamination from plant-derived radionuclides exists in concrete and metal ladder rungs. The samples will be collected from four (4) or more locations (depending upon scanning results) over the length of the sump that was in contact with the groundwater.

Source of the Information: The new measurements will include collection and radionuclide-specific analysis of concrete wafers, a metal ladder rung and gravel/sediment. The collection process will use a pneumatic

drill for coring. A reciprocating saw will be used to remove a ladder rung. Concrete cores will be sliced into wafers for analysis. Analysis for hard-to-detect (HTD) radionuclides will be performed under this SSWP as an output of the decision process. All samples will be analyzed for gamma emitting radionuclides.

Basis for the Action Level: The action levels for sediment are based upon an administrative TEDE limit of 10 mrem/y. This value is comprised of an 8 mrem/y soil component and a 2 mrem/y future groundwater component. The primary basis for the Action Levels is CY memo ISC 04-049, "Initial Target Operational DCGLs for CY". A secondary basis for the Sr-90 and H-3 Action Levels is a draft memo from the Groundwater Group, "Soil Screening Concentrations for Sr-90, Cs-137, Co-60 and Tritium".

Table 1 – Analytic matrix for sediment

The sensitivity or minimum detectable concentration (MDC) for several key radionuclides in the sediment is set at approximately 12% of the Action Level for all radionuclides except Sr-90 which has been set at approximately 40% and H-3 which has been set at approximately 50% due to the very low concentration for the Action Level, the expected K_d for soil and the MCL for water.

Radionuclide	Action Level (pCi/g)	Required MDC (pCi/g)
Co-60	1.22E+00	1.52E-01
Cs-137	2.53E+00	3.16E-01
Sr-90	6.50E-02	2.50E-02
H-3	3.30E+00	1.50E+00

Table 2 shows action levels for concrete for several key radionuclides and the standard detection sensitivity for the analytical and measurement process. The sensitivity or minimum detectable concentration (MDC) is set at 4% of the base-case DCGL values listed in Table 6-4 of the LTP. Note, the specified MDC is lower than 10% of the DCGL that is recommended by the Section 5.5 of the LTP for fixed measurements (fixed measurements include samples). However, the MDC is the same as the MDC specified in recent FSS sample plans designed to achieve a 10 mrem/year Total Effective Dose Equivalent (TEDE).

Table 2 – Analytic matrix for concrete

Radionuclide	Action Level (pCi/g)	Required MDC (pCi/g)
Co-60	9.07E+01	3.63E+00
Cs-137	6.45E+02	2.58E+01
Sr-90	3.77E-01	1.51E-02
H-3	9.05E+01	3.62E+00

4.0 DEFINE THE BOUNDARIES OF THE SURVEY.

Boundaries of the survey: The focus of this SSWP will be to collect concrete samples from at least three (3) predetermined locations over the portion of the sump in contact with groundwater. Additional samples (a metal ladder rung and sediment) will also be collected. All samples will be identified under a general building designator of 280.

The general orientation of the sample measurement locations (SML) is shown in Attachment 1. The sample location may be moved slightly depending upon the condition of the location. Additional sampling may be necessary to determine the need and amount of potential decontamination and remediation efforts.

Temporal boundaries: Sampling will normally be performed during dayshift.

Constraints: Constraints include underwater work, poor lighting and confined spaces.

5.0 DEVELOP A DECISION RULE

The following decisions rules have been developed to define a logical process for choosing among alternative actions for the principal study questions associated with this survey unit.

Decision Rule (1): If obstruction prevents further travel of the coring drill, determine if there is sufficient sample for analysis. Consider moving the SML location to obtain a new sample of sufficient quantity, otherwise stop sampling at this SML and document the conclusion of the decision in the Daily Survey Journal sheet.

Decision Rule (2): If all analyses meet the required sensitivity with no anomalous or suspect results (e.g., identification of a gamma-emitting radionuclide not contained in Table 1 and not attributable to natural radioactivity) then no further action is required under this SSWP. Otherwise, reanalyze the sample or consider performing additional analyses for hard-to-detect (HTD) radionuclides.

6.0 SPECIFY TOLERABLE LIMITS ON DECISION ERRORS

There are no limits on decision errors for characterization surveys.

7.0 OPTIMIZE DESIGN

Number of Samples and Locations: There are at least four (4) SMLs for sampling under this SSWP in the submerged portion of the sump.

DQO STEPS COMPLETE (signature signifies affirmative response)

R Hollenbeck 12/6/05

Site Closure Radiological Engineer/Date

GENERAL INSTRUCTIONS

1. Characterization activities will be performed under WP&IR number 2005-0094.
2. Cognizant engineers to review pictures and plant drawings of the area.
3. Sampling equipment and supplies will consist of some or all of the following; pneumatic concrete coring drill and drill bits, tape and tamper-evident tape, marker and new plastic bags for preparing samples and packaging off-site samples. Other equipment may include utility knifes, poly sheeting and location marker paint.
4. Samples will be obtained in accordance with RPM 5.1-3, "*Collection of Surface and Subsurface Soil, Shoreline Sediment, Asphalt and Liquid Samples for Scoping, Characterization and Final Status Surveys*" and in accordance with the Work Plan and Inspection Record (WP&IR) and this SSWP.
5. Sample nomenclature will be as suggested by RPM 5.1-2, "*Preparation of Characterization, Remedial Action and Turnover Survey Plans*" with some modification to align the procedural format with the need to obtain multiple samples from the same location. For example, 9801-0280-001C represents the concrete sample from SML #1. The dashes ("-") shown in the procedure are optional and are not required.
6. The cognizant radiological engineer will determine whether sufficient sample media has been collected for analysis in instances where only a partial core sample was obtained.
7. Samples will be handled in accordance with procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples.*"
8. Sample analyses should meet the sensitivity requirements provided in Table 1 to this SSWP.
9. Documents generated during the performance of this SSWP will be complete and legible. Corrections will be made using a single line-out followed by an initial and date.

SPECIFIC INSTRUCTIONS

1. Initiate and utilize the Daily Survey Journal Sheet in accordance with RPM 5.1-11, "*Preparation of Final Status Survey Plans*" or equivalent (logbook).
2. Scanning instructions
   a. Setup the gamma well logging equipment in accordance with RPM 5.2-9, "Operation of the Gamma Well Logger"
   b. Perform a scan of the north wall of the sump using the multi-channel scaler mode of operation.
   c. Review the data to determine if any elevated areas are present.
   d. If time is available, collect a spectrum at the elevated area.
3. Sample instructions (Attachment 1 provides location).
   a. Proceed to the selected SML denoted on Attachment 1 and designated by Table 3.

Table 3 –Sample Measurement Location (SML)

SML	Type	Sample Designation
1	Sediment	9801-0280-001
2	Concrete	9801-0280-002
3	Concrete	9801-0280-003
4	Concrete	9801-0280-004

b. Perform coring at the selected location.

(1). Drill all the way through the concrete (estimated thickness is 7 inches).

(2). Identify the inside surface by placing a "T" or arrow on the core, place into a plastic bag to maintain moisture content.

(3). Label the samples as follows:

(a.) Concrete cores in accordance with designation number provided in Table 3 followed by a "C".

(b.) Sediment sample in accordance with designation number provided in Table 3 followed by an "S".

(4). Use the next sequential number if additional samples are taken.

c. Generate a Sample Control and Accountability form for the samples.

(1). Record sample information on a Sample Control and Accountability form.

(2). Place a security tamper seal on the container or maintain physical control until sample(s) are transferred to an appropriate locked storage area.

(3). Record sample location information on the Sample Control and Accountability form.

d. Disposition samples for analysis.

(1). Set-up area for sample preparation in the Site Closure Sea/Land container or where directed by health physics.

(2). Slice the core into approximately 2 inch wafers.

(3). Place the wafers into double plastic bags or into a vacuum sealed single bag, apply tamper proof tape (if using plastic bags) and label each sample with "01", "02" etc, after the core designation.

e. Generate a CoC for samples being analyzed offsite.

(1). Record sample IDs, dates, times and codes.

(2). The analysis codes are "CHGAM", "H-3", and "Sr-90" for all samples.

(3). Select two wafers for analysis code "CHALL".

(4). Use the LTP QA purchase order for the analyses.

f. Evaluate the data and determine appropriate actions based upon the decision rules in Section 5.

Prepared by R Hollenbeck Date 12/6/05
Site Closure Radiological Engineer

Reviewed by Clyde T. Vrzemann Date 12/6/05

STAR **Attachment 4** **SELF CHECK**

Daily Briefing Checklist

(Page 1 of 2)

1. WP&IR No.: 2005-0094 Date: December 8, 2005 Page1 of 2
Job Supervisor: Arthur L. Hammond HP Supervisor: NA
HP Brief Performed by: NA RWP: NA RSR NA
Work Briefing by: Arthur L. Hammond

VERIFY ALL CRITICAL DEPARTMENTS FOR THE DAILY WORK ARE REPRESENTED PRIOR TO COMMENCING THE BRIEFING OR ENSURE THEY ARE BRIEFED PRIOR TO STARTING WORK.

2. Work Scope / Critical Steps (Use Sheet 2 for additional information) Slicing cores into wafers for shipment.

Task	Potential Hazard	Preventative Measures
Slice cores	Cutting fingers on saw. Noise from Operating equipment.	STAR, Use of PPE. (face shield, hearing protection Awareness of surroundings. LEATHER GLOVES WHEN CUTTING.

3. WP&IR Precautions / Prerequisites / Limitations / Hold / Verification Points for the day's activities: NA

4. City and State permit requirements for the day's work: Building Permit / Discharge Permit / etc. Site Permit

5. Known / Expected hazardous materials: None

6. Waste Stream identified / containers available: NA

7. Special Tools or Materials: Drill equipment and associated parts. Plastic bag, smears, tape, etc. (for RP use)

8. Contingencies: Call X3911 in case of an emergency

9. Ask all personnel if they **understand** the work scope, their responsibilities and hold / verification points.

10. Permits (I as applicable)	11. Special Requirements (Discuss as applicable)	
☐ Hot Work Permit	☐Change in Structural integrity	☐ FSS Authorization
Chemical Waste Permit	☐ Marked "BLACK" for removal	☐ Systems isolated
☐ Excavation Permit ☐	☐ System drained	☐ Rigging review
Confined Space Permit	☐Chemical Consumable Approval	
☐ Hazardous Substance Work		
☐ Breathing Air Permit		

Management Supervision/Observation Required ☐ Yes ☒ No

STAR **Attachment 4** **SELF CHECK**

Daily Briefing Checklist

WP&IR No.: 2005-0094 Date:

HOUSEKEEPING TO BE MAINTAINED AT ALL TIMES		
WALKWAYS WILL BE KEPT CLEAR OF HOSES, EXTENSION CORDS, WELDING LEADS, TOOLS AND PARTS		
Caution shall be taken when removing components to verify and stabilize any loose or potentially loose components. This consideration should also take into account during demolition for a change in structural integrity of the remaining structure.		
Task	**Potential Hazard**	**Preventative Measures**
Slice cores	Cutting fingers. Noise.	Operator awareness of surroundings. S.T.A.R. Use PPE
Package for shipment	Dropping slice/core.	Awareness of surroundings.
What's the worst that can go wrong? Has your planning addressed it? Cutting fingers on saw. Yes.		

Attachment 7
Briefing Checklist
(Page 1 of 1)

WP&IR No. 2005-0094 Page 1 of 1

DATE: December 8, 2005

FOR PROJECT SPECIFIC WPIRs DO NOT PERFORM WORK YOU ARE NOT BRIEFED TO.

NAME *(Print Clearly)*	NAME *(Print Clearly)*
Arthur Hammons	
Don Jolung	
Hipólito Rivera Jr	

CONNECTICUT YANKEE ATOMIC POWER COMPANY
SURVEY RECORD FORM

Surveyor Name: (Printed)	Surveyor Name: (Signature)	Location:
D. Johnson	[signature]	South Side Containment Bldg

Date: 12-6-05 | Time: 1600 | Log #:

Area #: 8000 | Map #: N/A | Rev. #: N/A

INSTRUMENTS USED

MODEL/SERIAL#	CAL DUE	PROBE/SERIAL#	CAL DUE
E140/1632	10-28-06	N/A	N/A
L2200/149722	7-28-06	HP210	N/A
L2200/151866	5-8-06	43-10/104294	N/A
N/A	N/A	N/A	N/A

REASON FOR SURVEY

- ☐ ROUTINE
- ☐ RWP
- ☑ OTHER

Core Bore Samples For FSS

AirSample Control #: N/A | Total DAC Fraction: N/A

CONTAMINATION RESULTS (SMEARS) dpm/100cm²

β MDA= 845 | α MDA= 15

SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha	SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha
	N/A			N/A	

Smear Continuation Sheet Used. ☐ YES ☑ NO

NDA= No Detectable Activity

Legend:

Dose rates are gamma and are in mrem/hr unless otherwise noted
All smears in Dpm/100cm² unless other wise noted.
All LAS's in cpm/LAS unless other wise noted

- Large Area Swipe Location
- AirSample Location
- Smear Location
- Contact Exposure Rate
- General Area Exposure Rate
- Indicates Boundary
- SOP - Step Off Pad
- RPR - Respiratory Protection Required

ARA - Airborne Radioactivity Area
RA - Radiation Area
CA - Contaminated Area
HRA - High Radiation Area
LHRA - Locked High Radiation Area
RM - Radioactive Material(s)
HCA - High Contamination Area
HPA - Hot Particle Area
RCA - Radiologically Controlled Area

HP MANAGER OR DESIGNEE REVIEW: DATE:

A DIVER DOVE INTO THE MAT SUMP WELL ON THE SOUTH SIDE OF THE CONTAINMENT BLDG. HE EXTRACTED 3 CORE BORE SAMPLES A LADDER RUNG, A SEDIMENT SAMPLE, A CANBERRA (NAI) INSTRUMENT USED TO ANALYZE HARD TO DETECT RADIONUCLIDES WAS ALSO RETRIEVED. THESE ITEMS WERE DIRECT FRISKED AND A SMEAR SURVEY WAS PERFORMED. RESULTS:

NO DETECTABLE ACTIVITY > BACKGROUND WAS DETECTED - E140 BKG 80CPM

ALL SMEARS < MDA β γ < MDA α

Postings ☐ Other _____
☐ RCA ☐ RM ☐ CA ☐ RA ☐ LHRA
☑ Outside The RCA ☐ HCA ☐ HRA ☐ Spec 2

☐ Contact HP Prior to Entering
☐ Airborne Radioactivity Area
☐ Respirator Protection Required

Daily Survey Journal

Survey Area #: 9801	Survey Area Name: Containment Building Mat Sump
Survey Unit #: 0280	WP&IR #: 2005-0094

Specific instructions for using the Daily Survey Journal.

1 The Daily Survey Journal provides the means to record those items required by the applicable sampling plan as well as any deviations or anomalies that should be brought to the attention of the cognizant final status survey (FSS) engineer.

2 All documentation will be complete and legible.

TIME	NOTES FOR SAMPLING DATE 12/6/05
0700	Attended brief for dive team to enter Mat Sump to obtain sediment sample, ladder rung and cores prior to pump removal. Personnel in attendance: Arthur L. Hammond, Pete Hollenbeck and Don Johnson. Brief given by Tim Murray, MBI.
0730	Dive crew and site rescue team setting up to obtain samples from Mat Sump.
1512	Obtained sediment sample from Mat Sump, by D. Johnson. Sample is ~ ¾ full of water and ~¼ full of sediment. Diver obtained sample for D. Johnson.
1525	Diver cut rung from ascending/descending ladder at ~39' in Mat Sump.
1530	D. Johnson taking samples to EOF to place on Attachment A.

Completed by: Arthur L. Hammond Date: December 6, 2005

Daily Survey Journal

Survey Area #: 9801	Survey Area Name: Containment Building Mat Sump
Survey Unit #: 0280	WP&IR #: 2005-0094

Specific instructions for using the Daily Survey Journal.

1 The Daily Survey Journal provides the means to record those items required by the applicable sampling plan as well as any deviations or anomalies that should be brought to the attention of the cognizant final status survey (FSS) engineer.

2 All documentation will be complete and legible.

TIME	NOTES FOR SAMPLING DATE 12/7/05
0700	Attended brief for dive team to enter Mat Sump to obtain sediment sample, ladder rung and cores prior to pump removal. Personnel in attendance: Arthur L. Hammond, Pete Hollenbeck and Don Johnson. Brief given by Tim Murray, MBI.
0730	Dive crew and site rescue team setting up to obtain core samples from Mat Sump.
0745	Change out of compressor by MBI.
0930	Diver in the water to cut core.
1150	Obtained core 9801-0280-002C, by D. Johnson. Core ~7" long, D. Johnson identified top of core. Core taken facing North ~1-2' from the ground.
1210	Crew taking a break for lunch.
1510	Obtained core 9801-0280-003C, by D. Johnson. Core ~7" long, D. Johnson identified top of core. Core was taken facing North ~5-6' from the bottom.
1310	Crew returned from lunch. Prepping driver for entry into Mat Sump
1530	Crew breaking down equipment for the day. Diver raised safety concern about location of sample 9801-0280-004C. Unable to safely set up equipment and drill from ladder. Notified Pete Hollenbeck. Discussed new location with Rich McGrath. It was decided to take sample 9801-0280-004C 180° (or as close to 180° from sample location 9801-0280-003C.

Completed by: Arthur L. Hammond Date: December 7, 2005

Daily Survey Journal

Survey Area #: 9801	Survey Area Name: Containment Building Mat Sump
Survey Unit #: 0280	WP&IR #: 2005-0094

Specific instructions for using the Daily Survey Journal.

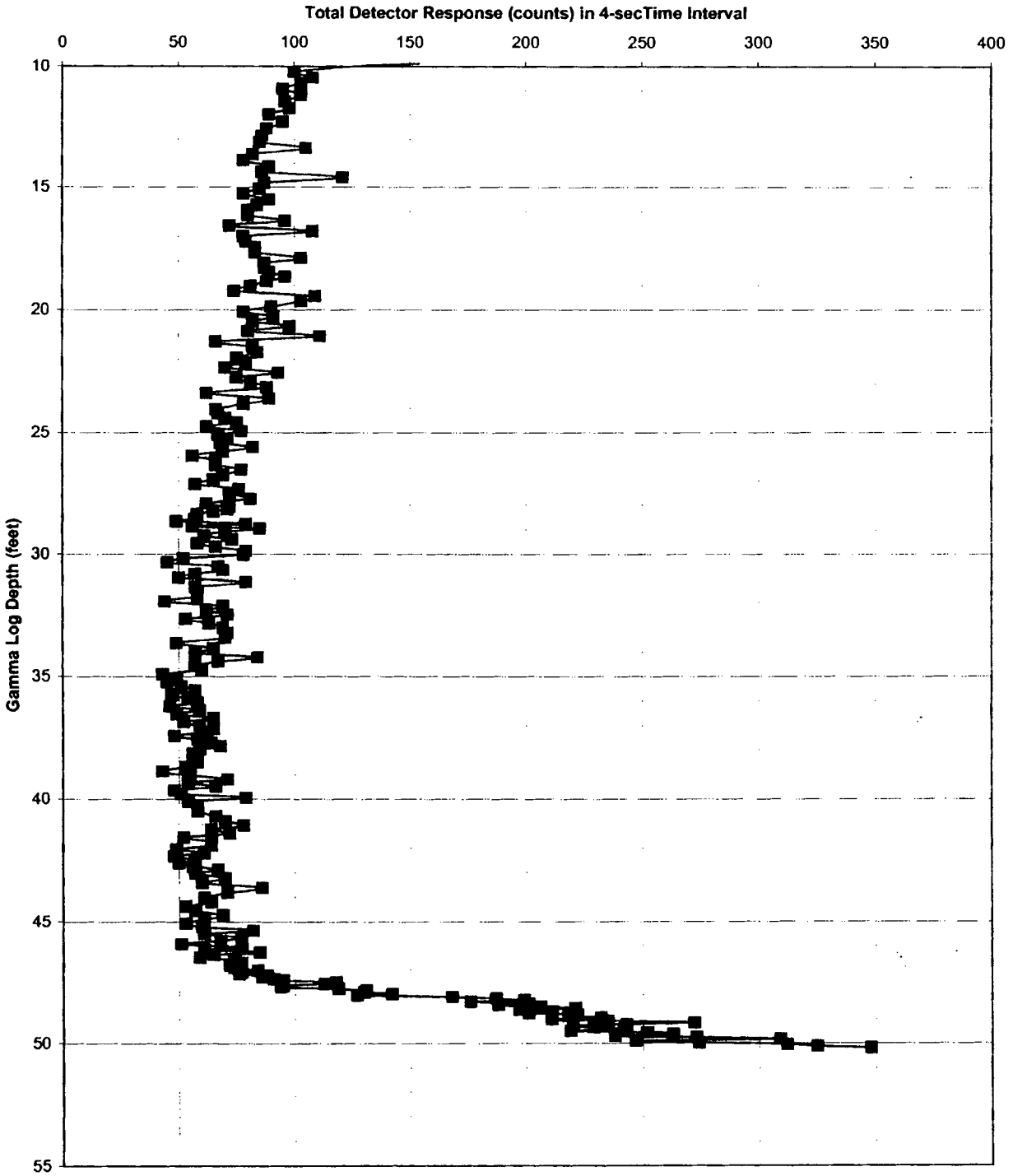
1 The Daily Survey Journal provides the means to record those items required by the applicable sampling plan as well as any deviations or anomalies that should be brought to the attention of the cognizant final status survey (FSS) engineer.

2 All documentation will be complete and legible.

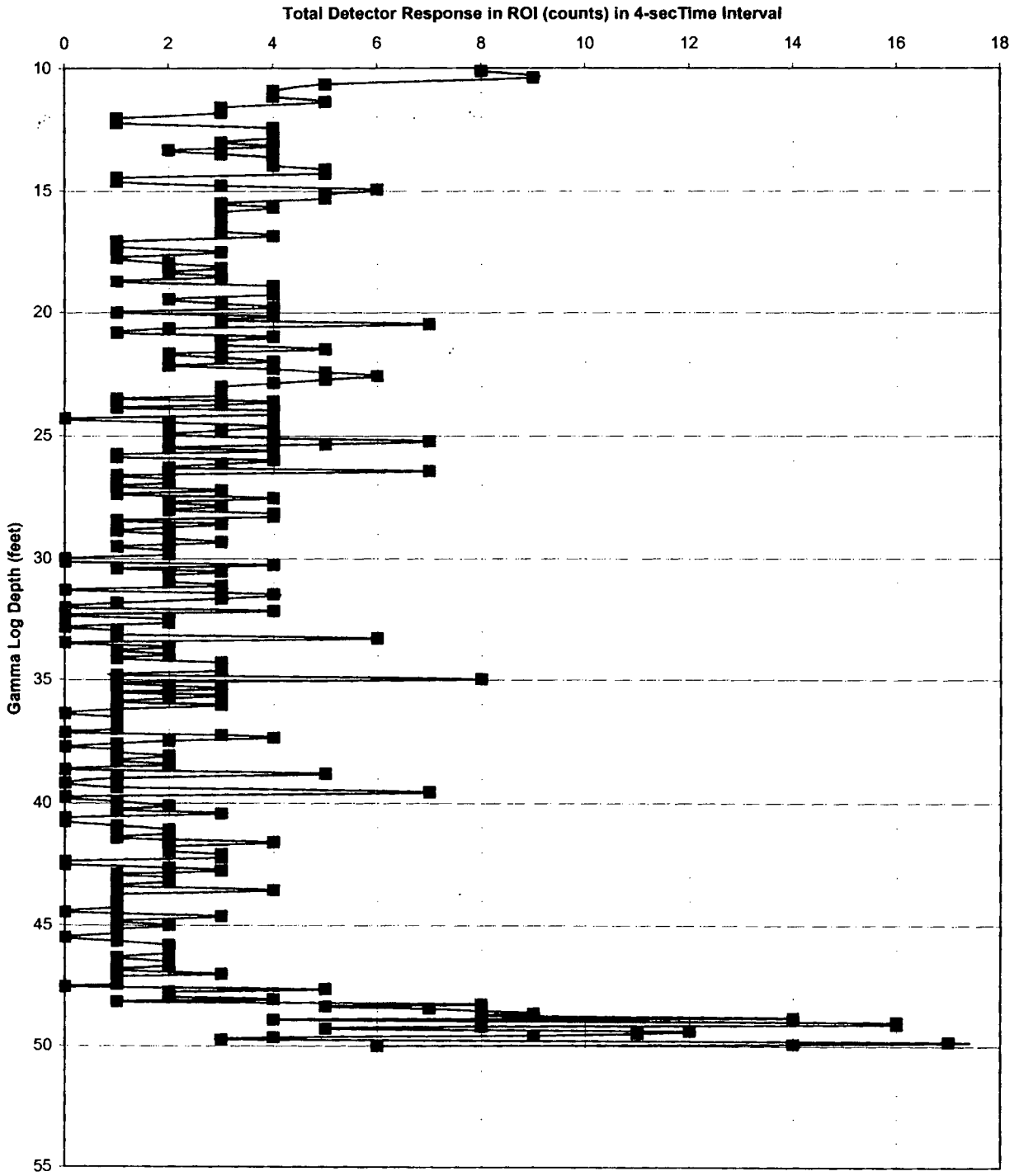
TIME	NOTES FOR SAMPLING DATE 12/8/05
0700	Attended brief for dive team to enter Mat Sump to obtain sediment sample, ladder rung and cores prior to pump removal. Personnel in attendance: Arthur L. Hammond, Pete Hollenbeck and Don Johnson. Brief given by Tim Murray, MBI. Denise Dudek gave confined space entry brief.
0710	Discussed with diver location of third core location. Sample will be taken from the East side of the ladder ~4-5' from core 9801-0280-003C. Unable to obtain core at higher elevation due to safety concern. (diver will have to work off a ladder at zero visibility) Core taken ~ 5-6' from ground surface.
0730	Dive crew and site rescue team setting up to obtain core samples from Mat Sump.
0800	Diver in the water to obtain core 9801-0280-004C.
0940	Obtained core 9801-0280-004C, by D. Johnson. Core ~7" long, D. Johnson identified top of core. Core was taken ~ 3-4' East of sample location 9801-0280-003C. (East of ladder rungs)
1000	D. Johnson taking core to EOF and completing Attachment A.
1300	Briefed for core slicing. Personnel in attendance: A. Hammond, Don Johnson and Hipolito Rivera Jr.
1315	Setting up to slice cores; 9801-0280-002C, 003C and 004C.
1330	Cutting core 9801-0280-002C into slices.
1330	9801-0280-002-01 (0-2")
1330	9801-0280-002-02 (2-4½")
1330	9801-0280-002-03 (4½-7")
1331	Label printer not functioning. (A. Hammond hand writing labels)
1355	Cutting core 9801-0280-003C into slices.
1355	9801-0280-003-01 (0-2")
1355	9801-0280-003-02 (2-4½")
1335	9801-0280-003-03 (4½-7")
1410	Cutting core 9801-0280-004C into slices.
1410	9801-0280-004-01 (0-2")
1410	9801-0280-004-02 (2-4")
1410	9801-0280-004-03 (4-7")
1420	Completed slicing wafers for the day. D. Johnson and laborer taking samples to EOF to place on Attachment A.

Completed by: Arthur L. Hammond Date: December 8, 2005

NaI Gamma Well Log Profile vs Depth
- Ascending Run on 12/06/2005 (SPN 11-00319) -



NaI Gamma Well Log Profile vs Depth
- Descending Run on 12/06/2005 (SPN 11-00317) -



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT
362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3099

Kenneth J. Heider
Vice President Operations
and Decommissioning

Telephone (860) 267-3928
Facsimile (860) 267-3550
heidekj@connyankee.com

RECEIVED
FEB 6 2003

February 5, 2003
CB-03-019

Bechtel Power Corporation
362 Injun Hollow Road
East Hampton, CT 06424-3099

Attention: Nathan Sadownik
Project Director
CY Decommissioning Project

Subject: Restart of the Containment Mat Sump

Dear Nat:

We understand Bechtel plans to restart the Containment Mat Sump. The Containment Mat Sump was shut down in October 2001 because the dose from Strontium-90 present in the discharge was not being accounted for in the REMODCM. This discrepancy has been corrected in both the REMODCM and in plant procedures.

CY and Bechtel have discussed the restart of the Containment Mat Sump with the Peter Hill of the Connecticut DEP and with the NRC. Other than some groundwater level testing, which is being performed by the Bechtel Integrated Site Closure Group, no other issues prevent the restart of the Containment Mat Sump.

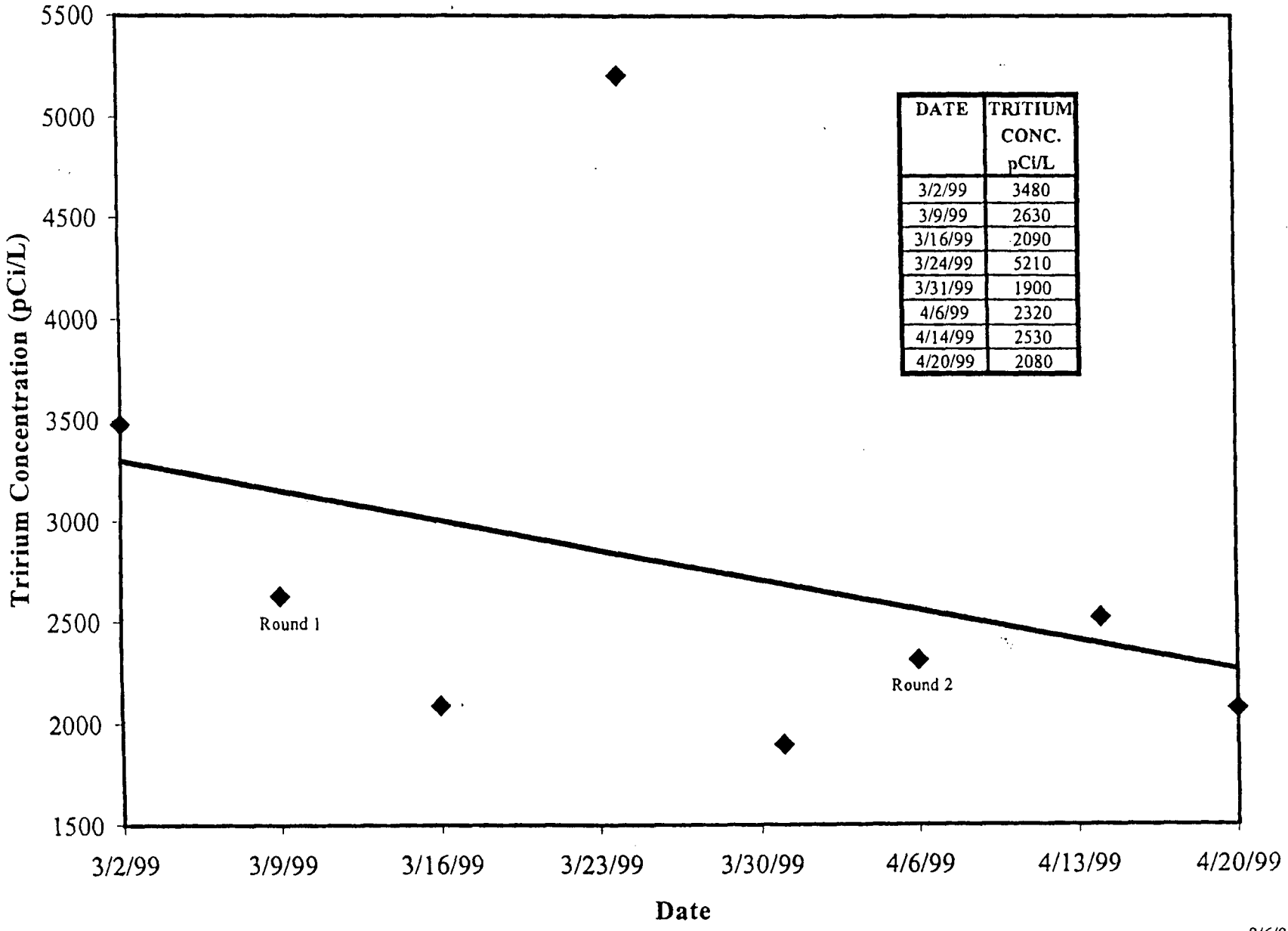
If you have any questions regarding this transmittal, please contact Joe Bourassa at ext. 3571 or me.

Sincerely,

/lwm

c: T. Bennet
N. Fetherston
C. Pizzella
J. Bourassa
M. Atkins
P. D'Ambrosio

FIGURE 4
CY MAT DRAIN SUMP TRITIUM DATA
Collected and Analyzed by CY March & April 1999

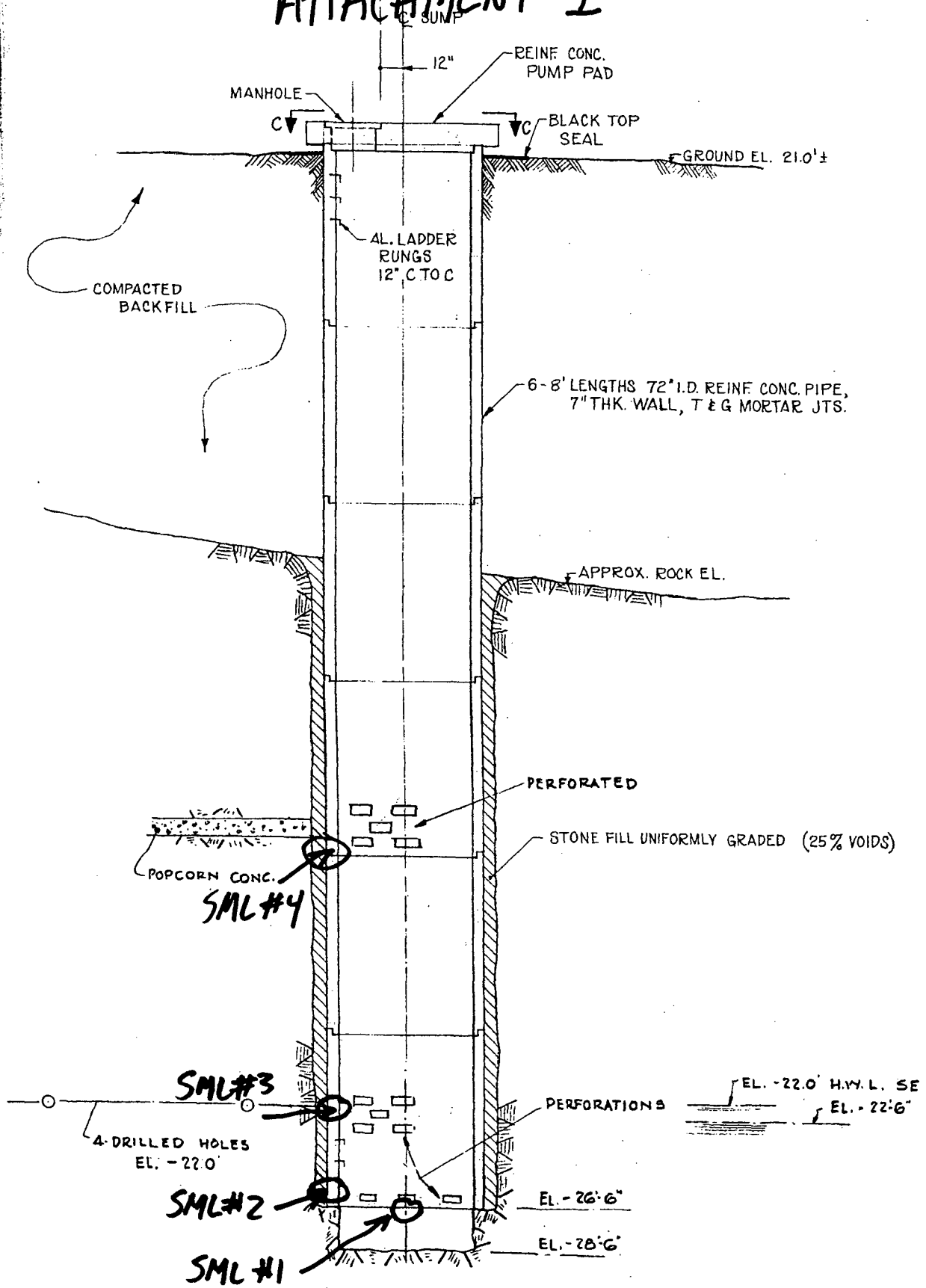


DATE	TRITIUM CONC. pCi/L
3/2/99	3480
3/9/99	2630
3/16/99	2090
3/24/99	5210
3/31/99	1900
4/6/99	2320
4/14/99	2530
4/20/99	2080

W:\TECH\3221003\REPORT\CHARTS.XLS\4

8/6/99

ATTACHMENT 2



B-B (FC-60A)
SUMP PUMP PIT
SCALE $\frac{1}{4}$" = 1'-0"

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General Narrative

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil & Concrete
PO# 002332
Work Order: 151782
SDG: MSR #05-2782

December 29, 2005

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on December 13, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

Sample ID	Client Sample ID
151782001	9801-0280-001S
151782002, 011	9801-0280-002-01C
151782003	9801-0280-002-02C
151782004	9801-0280-002-03C
151782005	9801-0280-003-01C
151782006	9801-0280-003-02C
151782007	9801-0280-003-03C
151782008, 012	9801-0280-004-01C

Sample ID	Client Sample ID
151782009	9801-0280-004-02C
151782010	9801-0280-004-03C

Items of Note:

Several samples were received with inaccurate collection dates and times. Pete Hollenbeck was contacted and provided the correct information and also provided, via email, a revised COC with the correct date and times.

Case Narrative:
Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Seven concrete samples were analyzed for CHGAM, Sr-90 and H-3.
Two concrete samples were analyzed for CHALL.
One soil sample was analyzed for CHGAM, Sr-90 and H-3.

Internal Chain of Custody:
Custody was maintained for the sample(s).

Data Package:
The enclosed data package contains the following sections: Case Narrative, Chain of Custody and Supporting Documentation and all analytical fractions.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

Chain of Custody and Supporting Documentation

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2005-00522

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 15 D. ☐ 7 D.
Other: 3 days

Lab Use Only
Comments:
151784 % - Iron
151782 % - SE/CT

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
9801-0280-001S	12/6/05	1512	SE	G	500ML /P	X	X	X					
Sump ladder rung	12/6/05	1525	Iron	G	BP	X	X	X					
9801-0280-002-01C	12/7/05	1150	CT	CR	BP				X				
9801-0280-002-02C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-002-03C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-003-01C	12/7/05	~~1150~~ 1510	CT CO 12/14/05	CR	BP	X	X	X					
9801-0280-003-02C	12/7/05	~~1150~~ 1510	CT CO 12/14/05	CR	BP	X	X	X					
9801-0280-003-03C	12/7/05	~~1150~~ 1510	CT CO 12/14/05	CR	BP	X	X	X					
9801-0280-004-01C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CO 12/14/05	CR	BP				X				
9801-0280-004-02C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CO 12/14/05	CR	BP	X	X	X					
9801-0280-004-03C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CO 12/14/05	CR	BP	X	X	X					

NOTES: PO #: 002332 MSR #: 05-2782 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Per Pete Hollenbeck, for SE sample. 21 day TAT acceptable for CHALL.
Sr90 MDA - 0.025 pCi/g
H3 MDA - 1-2 pCi/g
CAF 12/13/05

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7907 4206 2295
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	12/12/05 1340	[signature]	12/13/05 9:40
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2005-00522

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 15 D. ☐ 7 D.
Other: 3 days

Lab Use Only

Comments:

Corrected COC for discrepancys found by GEL.
Original COC was received by GEL on 12/13/05

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
9801-0280-001S	12/6/05	1512	SE	G	500ML/P	X	X	X					
Sump ladder rung	12/6/05	1525	Iron	G	BP	X	X	X					
9801-0280-002-01C	12/7/05	1150	CT	CR	BP				X				
9801-0280-002-02C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-002-03C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-003-01C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-003-02C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-003-03C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-004-01C	12/8/05	0940	CT	CR	BP				X				
9801-0280-004-02C	12/8/05	0940	CT	CR	BP	X	X	X					
9801-0280-004-03C	12/8/05	0940	CT	CR	BP	X	X	X					

NOTES: PO #: 002332 MSR #: 05-2782 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other

Bill of Lading #
7907 4206 2295

Internal Container Temp.: ____ Deg. C

Custody Sealed?
Y ☐ N ☐

Custody Seal Intact?
Y ☐ N ☐

1) Relinquished By Date/Time	2) Received By Date/Time
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 12/13/05 . 9:40

SDG#: MSR#05-2782

Work Order Number: 151782, 151784

Shipping Container ID: 7907 4206 2295 Chain of Custody # 2005-00522

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 10° no Blue ice or ice
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] None ✓
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape	____hazard labels
____custody seals	✓ appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [X] No [ ]
11. Description of anomalies (include sample numbers): See GEL continuation form

Sample Custodian/Laboratory: [signature] Date: 12/13/05

Telephoned to:_____ On_____ By_____

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Yankee	**SDG/ARCOC/Work Order:** 151782, 151784
Date Received: 12-13-05	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By:	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				
8	Samples received within holding time?				Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?				Sample ID's affected:
11	Number of containers received match number indicated on COC?				Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?				
14	Air Bill ,Tracking #'s, & Additional Comments				

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?		✓		Maximum Counts Observed*: 90 CPM
B	PCB Regulated?	✓			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: _____ Initials _____ Date: 12/13/05

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

9801 - 0280 - 003 - 01C - wrong time			15:10
9801 - 280 - 003 - 02C	↓		15:10
9801 - 280 - 003 - 03C	↓		15:10
9801 280 - 004	1C wrong date & time. 12-8-05 9400		
9801 280 - 004	2C	↓	↓
9801 280 - 004	3C	↓	↓

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-2782

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	487526
Prep Batch Number:	487510
Dry Soil Prep GL-RAD-A-021 Batch Number:	487507

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995504	Method Blank (MB)
1200995505	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995506	151782011(9801-0280-002-01C) Matrix Spike (MS)
1200995507	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	487532
Prep Batch Number:	487510
Dry Soil Prep GL-RAD-A-021 Batch Number:	487507

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995524	Method Blank (MB)
1200995525	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995526	151782011(9801-0280-002-01C) Matrix Spike (MS)
1200995527	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	489487
Prep Batch Number:	487510
Dry Soil Prep GL-RAD-A-021 Batch Number:	487507

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200999946	Method Blank (MB)
1200999947	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200999948	151782011(9801-0280-002-01C) Matrix Spike (MS)

1200999949 Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product: **Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)**

Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	487705
Prep Batch Number:	487507

Sample ID	Client ID
151782001	9801-0280-001S
151782002	9801-0280-002-01C
151782003	9801-0280-002-02C
151782004	9801-0280-002-03C
151782005	9801-0280-003-01C
151782006	9801-0280-003-02C
151782007	9801-0280-003-03C
151782008	9801-0280-004-01C
151782009	9801-0280-004-02C
151782010	9801-0280-004-03C
1200995907	Method Blank (MB)
1200995908	151782008(9801-0280-004-01C) Sample Duplicate (DUP)
1200995909	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782008 (9801-0280-004-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200995908 (9801-0280-004-01C) was recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 277552 was generated due to RDL less than MDA and Container scanning event for custody missed. 1. RDL less than MDA: 150984 002 151784 001 The required detection limits were not met due to low aliquot. 2. Container scanning event for custody missed: 151782 010 The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. 1. Reporting results. 2. Reporting results. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Additional Comments
The relative percent difference between samples 1200995908 (9801-0280-004-01C) and 151782008 (9801-0280-004-01C) for Bi-214 and Ra-226 did not meet the requirements at 43.4%. However, when a relative error ratio is calculated, precision is shown at 2.66. The relative percent difference between samples 1200995908 (9801-0280-004-01C) and 151782008 (9801-0280-004-01C) for Bi-212 did not meet the requirements at 45.3%. However, when a relative error ratio is calculated, precision is shown at 1.02.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high Full-Width Half-Maximum.	Bismuth-212	151782002
			151782005
UI	Data rejected due to high peak uncertainty.	Potassium-40	151784001
UI	Data rejected due to low abundance.	Cesium-134	151782001
UI	Data rejected due to no valid peak.	Cobalt-60	151782008

Method/Analysis Information

Product:	**GFPC, Sr90, solid - 0.025 pCi/g**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	488820
Prep Batch Number:	487495
Dry Soil Prep GL-RAD-A-021 Batch Number:	487494

Sample ID	Client ID
151782001	9801-0280-001S
151782002	9801-0280-002-01C
151782003	9801-0280-002-02C
151782004	9801-0280-002-03C

151782005	9801-0280-003-01C
151782006	9801-0280-003-02C
151782007	9801-0280-003-03C
151782008	9801-0280-004-01C
151782009	9801-0280-004-02C
151782010	9801-0280-004-03C
1200998558	Method Blank (MB)
1200998559	151782009(9801-0280-004-02C) Sample Duplicate (DUP)
1200998560	151782009(9801-0280-004-02C) Matrix Spike (MS)
1200998561	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782009 (9801-0280-004-02C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to low/high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
The results for samples 1200998558 (MB), 151782006 (9801-0280-003-02C), 151782007 (9801-0280-003-03C), 151782008 (9801-0280-004-01C), 151782009 (9801-0280-004-02C), and 151782010 (9801-0280-004-03C) are negative to an extent that is greater than the 3 sigma TPU. The results are being reported due to the TPU values being extremely low because of the large aliquot and amount of count time needed to achieve the RDL.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	487525

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995516	Method Blank (MB)
1200995517	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995518	151782011(9801-0280-002-01C) Matrix Spike (MS)
1200995519	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	487536
Prep Batch Number:	487510
Dry Soil Prep GL-RAD-A-021 Batch Number:	487507

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995540	Method Blank (MB)
1200995541	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995542	151782011(9801-0280-002-01C) Matrix Spike (MS)
1200995543	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 3.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	487537
Prep Batch Number:	487510
Dry Soil Prep GL-RAD-A-021 Batch Number:	487507

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995544	Method Blank (MB)
1200995545	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995546	151782011(9801-0280-002-01C) Matrix Spike (MS)

1200995547 Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid - 1 to 2 pCi/g**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	487531

Sample ID	Client ID
151782001	9801-0280-001S
151782002	9801-0280-002-01C
151782003	9801-0280-002-02C
151782004	9801-0280-002-03C
151782005	9801-0280-003-01C
151782006	9801-0280-003-02C
151782007	9801-0280-003-03C
151782008	9801-0280-004-01C
151782009	9801-0280-004-02C
151782010	9801-0280-004-03C
1200995528	Method Blank (MB)
1200995529	151782001(9801-0280-001S) Sample Duplicate (DUP)
1200995530	151782001(9801-0280-001S) Matrix Spike (MS)
1200995531	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782001 (9801-0280-001S).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Samples 1200995529 (9801-0280-001S) and 151782001 (9801-0280-001S) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	487529

Sample ID	Client ID
151782011	9801-0280-002-01C
151782012	9801-0280-004-01C
1200995520	Method Blank (MB)
1200995521	151782011(9801-0280-002-01C) Sample Duplicate (DUP)
1200995522	151782011(9801-0280-002-01C) Matrix Spike (MS)
1200995523	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782011 (9801-0280-002-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: 12/29/05

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-DEC-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	EML HASL 300, 4.5.2.3	Solid	YANK
Batch ID:	**Sample Numbers:**		
487705	See Below		

Potentially affected work order(s)(SDG): 150984(MSR#05-2683),151782(MSR#05-2782),151784(MSR#05-2782)

Application Issues:

RDL less than MDA

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. RDL less than MDA: 150984 002 151784 001 The required detection limits were not met due to low aliquot.	1. Reporting results.
2. Container scanning event for custody missed: 151782 010 The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times.	2. Reporting results. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Originator's Name:

Jodi Cummings 16-DEC-05

Data Validator/Group Leader:

Melanie Aycock 19-DEC-05

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-2782 GEL Work Order: 151782

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
D Sample has been diluted and reanalyzed after initially exceeding inst. calibration range
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
P The response between the confirmation and the primary columns is >40% Different.
R Sample results are rejected.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
ND The analyte concentration is not detected above the reporting limit.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–001S	Project:	YANK01204
Sample ID:	151782001	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	06–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	16%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium–228		0.949	+/–0.233	0.0565	+/–0.228	0.120	pCi/g		MJH1 12/14/05	1205	487705	1
Americium–241	U	–0.17	+/–0.125	0.0968	+/–0.123	0.199	pCi/g					
Bismuth–212		0.516	+/–0.282	0.119	+/–0.276	0.252	pCi/g					
Bismuth–214		0.926	+/–0.119	0.0294	+/–0.116	0.0617	pCi/g					
Cesium–134	UUI	0.00	+/–0.040	0.0202	+/–0.0392	0.0424	pCi/g					
Cesium–137		0.775	+/–0.0822	0.0157	+/–0.0805	0.033	pCi/g					
Cobalt–60		0.0806	+/–0.037	0.0153	+/–0.0362	0.0334	pCi/g					
Europium–152	U	–0.00728	+/–0.052	0.0403	+/–0.051	0.0838	pCi/g					
Europium–154	U	–0.0445	+/–0.0565	0.0433	+/–0.0554	0.094	pCi/g					
Europium–155	U	0.0106	+/–0.0567	0.051	+/–0.0555	0.105	pCi/g					
Lead–212		0.960	+/–0.111	0.0243	+/–0.109	0.0501	pCi/g					
Lead–214		0.974	+/–0.140	0.029	+/–0.137	0.0603	pCi/g					
Manganese–54	U	–0.00614	+/–0.020	0.016	+/–0.0196	0.0339	pCi/g					
Niobium–94	U	0.0153	+/–0.0159	0.0141	+/–0.0156	0.0297	pCi/g					
Potassium–40		16.4	+/–1.41	0.138	+/–1.38	0.304	pCi/g					
Radium–226		0.926	+/–0.119	0.0294	+/–0.116	0.0617	pCi/g					
Silver–108m	U	0.00179	+/–0.0173	0.0151	+/–0.0169	0.0314	pCi/g					
Thallium–208		0.268	+/–0.0489	0.0155	+/–0.0479	0.0325	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid – 0.025 pCi/g												
Strontium–90		0.0945	+/–0.00947	0.00555	+/–0.00997	0.0114	pCi/g		AF1 12/18/05	2116	488820	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid – 1 to 2 pCi/g												
Tritium	U	0.781	+/–0.721	0.587	+/–0.721	1.20	pCi/g		MXP1 12/14/05	1842	487531	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0516	487495
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	TC1	12/14/05	0513	487494

The following Analytical Methods were performed

Method	Description

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–001S
Sample ID: 151782001

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	78	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–002–01C	Project:	YANK01204
Sample ID:	151782002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium–228		0.490	+/–0.168	0.061	+/–0.165	0.130	pCi/g		MJH1	12/14/05	1208	487705	1
Americium–241	U	0.0101	+/–0.0288	0.0231	+/–0.0283	0.0475	pCi/g						
Bismuth–212	UUI	0.00	+/–0.461	0.114	+/–0.452	0.244	pCi/g						
Bismuth–214		0.391	+/–0.0864	0.0301	+/–0.0847	0.0637	pCi/g						
Cesium–134	U	0.0271	+/–0.0213	0.0194	+/–0.0209	0.0412	pCi/g						
Cesium–137	U	0.0296	+/–0.0357	0.0172	+/–0.035	0.0365	pCi/g						
Cobalt–60	U	0.0038	+/–0.0174	0.0149	+/–0.0171	0.033	pCi/g						
Europium–152	U	–0.0397	+/–0.0487	0.0405	+/–0.0478	0.0848	pCi/g						
Europium–154	U	–0.0175	+/–0.0598	0.0482	+/–0.0586	0.105	pCi/g						
Europium–155	U	0.012	+/–0.0453	0.0401	+/–0.0444	0.0825	pCi/g						
Lead–212		0.386	+/–0.0668	0.0225	+/–0.0654	0.0467	pCi/g						
Lead–214		0.393	+/–0.077	0.0314	+/–0.0754	0.0656	pCi/g						
Manganese–54	U	0.00338	+/–0.0185	0.0161	+/–0.0181	0.0344	pCi/g						
Niobium–94	U	–0.00153	+/–0.0184	0.0152	+/–0.018	0.0323	pCi/g						
Potassium–40		7.09	+/–0.794	0.124	+/–0.778	0.280	pCi/g						
Radium–226		0.391	+/–0.0864	0.0301	+/–0.0847	0.0637	pCi/g						
Silver–108m	U	–0.00967	+/–0.0173	0.0143	+/–0.0169	0.0301	pCi/g						
Thallium–208		0.141	+/–0.0433	0.0148	+/–0.0424	0.0315	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–HTD2,ALL2 (CT)													
Strontium–90	U	0.00179	+/–0.00453	0.00374	+/–0.00453	0.00775	pCi/g		AF1	12/18/05	2116	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL2 (CT)													
Tritium	U	0.579	+/–1.73	1.43	+/–1.73	2.97	pCi/g		MXP1	12/14/05	0058	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0536	487510
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/13/05	1134	487507
GL–RAD–A–026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–002–01C
Sample ID: 151782002

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	96	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–002–02C	Project:	YANK01204
Sample ID:	151782003	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	3.81%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium–228		0.363	+/–0.141	0.0499	+/–0.138	0.111	pCi/g		MJH1	12/14/05	1726	487705	1
Americium–241	U	0.0234	+/–0.0855	0.0702	+/–0.0838	0.146	pCi/g						
Bismuth–212	U	0.164	+/–0.163	0.116	+/–0.159	0.253	pCi/g						
Bismuth–214		0.390	+/–0.0781	0.0286	+/–0.0766	0.0618	pCi/g						
Cesium–134	U	0.0111	+/–0.0214	0.019	+/–0.021	0.0411	pCi/g						
Cesium–137	U	–0.0123	+/–0.0169	0.0133	+/–0.0166	0.0292	pCi/g						
Cobalt–60	U	0.00629	+/–0.024	0.0184	+/–0.0235	0.041	pCi/g						
Europium–152	U	0.0236	+/–0.0529	0.0464	+/–0.0519	0.0977	pCi/g						
Europium–154	U	–0.0248	+/–0.0555	0.0439	+/–0.0544	0.099	pCi/g						
Europium–155	U	–0.00338	+/–0.0459	0.0427	+/–0.045	0.0891	pCi/g						
Lead–212		0.265	+/–0.075	0.0292	+/–0.0735	0.0606	pCi/g						
Lead–214		0.345	+/–0.0795	0.0311	+/–0.0779	0.0659	pCi/g						
Manganese–54	U	0.00717	+/–0.019	0.0165	+/–0.0186	0.0359	pCi/g						
Niobium–94	U	–0.00957	+/–0.0171	0.0138	+/–0.0168	0.0299	pCi/g						
Potassium–40		6.06	+/–0.709	0.107	+/–0.695	0.256	pCi/g						
Radium–226		0.390	+/–0.0781	0.0286	+/–0.0766	0.0618	pCi/g						
Silver–108m	U	0.00296	+/–0.0177	0.0149	+/–0.0174	0.0318	pCi/g						
Thallium–208		0.135	+/–0.0444	0.0156	+/–0.0435	0.0336	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–HTD2,ALL2 (CT)													
Strontium–90	U	0.00374	+/–0.00419	0.00337	+/–0.00419	0.00701	pCi/g		AF1	12/18/05	2258	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL2 (CT)													
Tritium	U	2.85	+/–1.93	1.51	+/–1.94	3.14	pCi/g		MXP1	12/14/05	0129	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/13/05	1134	487507
GL–RAD–A–026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–002–02C
Sample ID: 151782003

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	98	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–002–03C	Project:	YANK01204
Sample ID:	151782004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	4.08%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)												
Actinium–228		0.324	+/–0.107	0.0381	+/–0.105	0.0857	pCi/g		MJH1 12/14/05	1727	487705	1
Americium–241	U	–0.0367	+/–0.0794	0.0525	+/–0.0779	0.110	pCi/g					
Bismuth–212	U	0.131	+/–0.147	0.108	+/–0.144	0.235	pCi/g					
Bismuth–214		0.298	+/–0.0671	0.0277	+/–0.0658	0.0595	pCi/g					
Cesium–134	U	0.0177	+/–0.0308	0.0183	+/–0.0302	0.0393	pCi/g					
Cesium–137	U	0.00064	+/–0.0163	0.0138	+/–0.016	0.030	pCi/g					
Cobalt–60	U	0.00618	+/–0.0192	0.0166	+/–0.0189	0.037	pCi/g					
Europium–152	U	–0.00725	+/–0.0475	0.0346	+/–0.0465	0.0738	pCi/g					
Europium–154	U	–0.0408	+/–0.0519	0.038	+/–0.0509	0.086	pCi/g					
Europium–155	U	0.0126	+/–0.0421	0.0394	+/–0.0413	0.0821	pCi/g					
Lead–212		0.336	+/–0.0458	0.0207	+/–0.0448	0.0435	pCi/g					
Lead–214		0.356	+/–0.0679	0.030	+/–0.0666	0.0633	pCi/g					
Manganese–54	U	–0.00312	+/–0.0171	0.0138	+/–0.0167	0.030	pCi/g					
Niobium–94	U	0.00109	+/–0.0142	0.012	+/–0.0139	0.0261	pCi/g					
Potassium–40		6.79	+/–0.725	0.148	+/–0.711	0.332	pCi/g					
Radium–226		0.298	+/–0.0671	0.0277	+/–0.0658	0.0595	pCi/g					
Silver–108m	U	0.00686	+/–0.0139	0.0127	+/–0.0136	0.0272	pCi/g					
Thallium–208		0.108	+/–0.0318	0.0136	+/–0.0312	0.0293	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid–HTD2,ALL2 (CT)												
Strontium–90	U	0.00259	+/–0.00536	0.0044	+/–0.00536	0.00914	pCi/g		AF1 12/18/05	2258	488820	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid–HTD2,ALL2 (CT)												
Tritium	U	1.82	+/–1.90	1.52	+/–1.90	3.16	pCi/g		MXP1 12/14/05	0201	487531	4
Solid Preparation												
Laboratory Composite – CONCRETE												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/13/05	1134	487507
GL–RAD–A–026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801-0280-002-03C
Sample ID: 151782004

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	77	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-003-01C	Project:	YANK01204
Sample ID:	151782005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	5.22%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.458	+/-0.141	0.0444	+/-0.138	0.0971	pCi/g		MJH1	12/14/05	1727	487705	1
Americium-241	U	0.0751	+/-0.0856	0.0816	+/-0.0839	0.169	pCi/g						
Bismuth-212	UUI	0.00	+/-0.290	0.0998	+/-0.285	0.215	pCi/g						
Bismuth-214		0.522	+/-0.0917	0.0243	+/-0.0899	0.0521	pCi/g						
Cesium-134	U	0.0143	+/-0.0168	0.0152	+/-0.0165	0.0328	pCi/g						
Cesium-137		0.0495	+/-0.0259	0.014	+/-0.0254	0.0299	pCi/g						
Cobalt-60	U	-0.011	+/-0.0188	0.0144	+/-0.0184	0.0322	pCi/g						
Europium-152	U	-0.0237	+/-0.0393	0.0339	+/-0.0385	0.0718	pCi/g						
Europium-154	U	-0.0153	+/-0.052	0.042	+/-0.0509	0.0929	pCi/g						
Europium-155	U	0.0429	+/-0.0451	0.0429	+/-0.0442	0.0889	pCi/g						
Lead-212		0.334	+/-0.0638	0.0204	+/-0.0625	0.0427	pCi/g						
Lead-214		0.648	+/-0.102	0.0234	+/-0.100	0.0497	pCi/g						
Manganese-54	U	0.00368	+/-0.0158	0.0134	+/-0.0155	0.0289	pCi/g						
Niobium-94	U	0.0034	+/-0.0159	0.0136	+/-0.0156	0.0291	pCi/g						
Potassium-40		6.71	+/-0.783	0.104	+/-0.767	0.242	pCi/g						
Radium-226		0.522	+/-0.0917	0.0243	+/-0.0899	0.0521	pCi/g						
Silver-108m	U	0.000601	+/-0.0128	0.0113	+/-0.0125	0.0241	pCi/g						
Thallium-208		0.138	+/-0.0431	0.0135	+/-0.0423	0.0288	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		0.0237	+/-0.0056	0.00385	+/-0.00562	0.00801	pCi/g		AF1	12/18/05	2258	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	0.887	+/-1.82	1.49	+/-1.82	3.10	pCi/g		MXP1	12/14/05	0233	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507
GL-RAD-A-026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–003–01C
Sample ID: 151782005

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	81	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–003–02C	Project:	YANK01204
Sample ID:	151782006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	3.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium–228		0.398	+/–0.119	0.0549	+/–0.117	0.119	pCi/g		MJH1	12/14/05	1728	487705	1
Americium–241	U	0.0213	+/–0.0821	0.062	+/–0.0805	0.129	pCi/g						
Bismuth–212		0.602	+/–0.272	0.110	+/–0.267	0.238	pCi/g						
Bismuth–214		0.377	+/–0.0867	0.0273	+/–0.085	0.0584	pCi/g						
Cesium–134	U	0.0261	+/–0.0246	0.0185	+/–0.0241	0.0396	pCi/g						
Cesium–137	U	0.00812	+/–0.0183	0.0162	+/–0.018	0.0347	pCi/g						
Cobalt–60	U	0.00691	+/–0.0189	0.0165	+/–0.0185	0.0364	pCi/g						
Europium–152	U	–0.0165	+/–0.0494	0.0374	+/–0.0484	0.079	pCi/g						
Europium–154	U	–0.0187	+/–0.0569	0.0456	+/–0.0558	0.101	pCi/g						
Europium–155	U	0.00206	+/–0.0481	0.0446	+/–0.0471	0.0923	pCi/g						
Lead–212		0.348	+/–0.0623	0.0218	+/–0.0611	0.0455	pCi/g						
Lead–214		0.440	+/–0.0878	0.028	+/–0.086	0.0591	pCi/g						
Manganese–54	U	0.00348	+/–0.0175	0.0155	+/–0.0171	0.0333	pCi/g						
Niobium–94	U	–0.00567	+/–0.0163	0.0133	+/–0.016	0.0286	pCi/g						
Potassium–40		7.73	+/–0.914	0.148	+/–0.895	0.330	pCi/g						
Radium–226		0.377	+/–0.0867	0.0273	+/–0.085	0.0584	pCi/g						
Silver–108m	U	0.000102	+/–0.016	0.0141	+/–0.0156	0.0299	pCi/g						
Thallium–208		0.110	+/–0.0481	0.0139	+/–0.0471	0.0299	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–HTD2,ALL2 (CT)													
Strontium–90	U	–0.0161	+/–0.0052	0.00489	+/–0.00521	0.0101	pCi/g		AF1	12/18/05	2148	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL2 (CT)													
Tritium	U	0.595	+/–1.77	1.46	+/–1.77	3.05	pCi/g		MXP1	12/14/05	0305	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/13/05	1134	487507
GL–RAD–A–026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–003–02C
Sample ID: 151782006

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	84	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-003-03C	Project:	YANK01204
Sample ID:	151782007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	3.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.335	+/-0.136	0.0461	+/-0.134	0.101	pCi/g		MJH1	12/14/05	1728	487705	1
Americium-241	U	-0.0328	+/-0.060	0.0539	+/-0.0588	0.112	pCi/g						
Bismuth-212		0.230	+/-0.178	0.100	+/-0.174	0.218	pCi/g						
Bismuth-214		0.241	+/-0.0668	0.0246	+/-0.0654	0.0528	pCi/g						
Cesium-134	U	0.0283	+/-0.0216	0.0168	+/-0.0212	0.0361	pCi/g						
Cesium-137	U	0.00823	+/-0.0168	0.0151	+/-0.0164	0.0324	pCi/g						
Cobalt-60	U	-0.0155	+/-0.0153	0.0105	+/-0.015	0.0245	pCi/g						
Europium-152	U	0.0231	+/-0.0369	0.0344	+/-0.0362	0.0728	pCi/g						
Europium-154	U	-0.00616	+/-0.0483	0.0401	+/-0.0474	0.0895	pCi/g						
Europium-155	U	-0.0161	+/-0.0426	0.0375	+/-0.0418	0.0781	pCi/g						
Lead-212		0.316	+/-0.0483	0.019	+/-0.0473	0.0399	pCi/g						
Lead-214		0.316	+/-0.0621	0.0212	+/-0.0609	0.0454	pCi/g						
Manganese-54	U	-0.00327	+/-0.0152	0.0123	+/-0.0149	0.0269	pCi/g						
Niobium-94	U	-0.00157	+/-0.0139	0.0116	+/-0.0136	0.0251	pCi/g						
Potassium-40		6.42	+/-0.798	0.121	+/-0.782	0.276	pCi/g						
Radium-226		0.241	+/-0.0668	0.0246	+/-0.0654	0.0528	pCi/g						
Silver-108m	U	-0.00609	+/-0.0122	0.0102	+/-0.0119	0.022	pCi/g						
Thallium-208		0.103	+/-0.0305	0.0112	+/-0.0299	0.0243	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	-0.00809	+/-0.00492	0.0044	+/-0.00493	0.00908	pCi/g		AF1	12/18/05	2149	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.03	+/-1.83	1.49	+/-1.83	3.12	pCi/g		MXP1	12/14/05	0337	487531	4
Solid Preparation													
Laboratory Composite - CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507
GL-RAD-A-026	Laboratory sample composite				487499

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Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–003–03C
Sample ID: 151782007

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	79	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801–0280–004–01C	Project:	YANK01204
Sample ID:	151782008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	08–DEC–05		
Receive Date:	13–DEC–05		
Collector:	Client		
Moisture:	3.54%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium–228		0.412	+/–0.181	0.088	+/–0.178	0.187	pCi/g		MJH1	12/14/05	1729	487705	1
Americium–241	U	0.00602	+/–0.0357	0.0327	+/–0.035	0.0674	pCi/g						
Bismuth–212		0.405	+/–0.258	0.168	+/–0.253	0.359	pCi/g						
Bismuth–214		0.475	+/–0.113	0.0405	+/–0.111	0.0858	pCi/g						
Cesium–134	U	–0.00624	+/–0.030	0.0249	+/–0.0294	0.053	pCi/g						
Cesium–137	U	0.0422	+/–0.0363	0.0237	+/–0.0356	0.0501	pCi/g						
Cobalt–60	UUI	0.00	+/–0.0489	0.0217	+/–0.048	0.0476	pCi/g						
Europium–152	U	–0.0485	+/–0.0684	0.0566	+/–0.0671	0.119	pCi/g						
Europium–154	U	0.0547	+/–0.0796	0.0713	+/–0.078	0.154	pCi/g						
Europium–155	U	0.0644	+/–0.0615	0.056	+/–0.0603	0.115	pCi/g						
Lead–212		0.352	+/–0.0655	0.0317	+/–0.0642	0.0658	pCi/g						
Lead–214		0.380	+/–0.095	0.0427	+/–0.0931	0.0894	pCi/g						
Manganese–54	U	0.0132	+/–0.0292	0.0253	+/–0.0286	0.0535	pCi/g						
Niobium–94	U	–0.0213	+/–0.0294	0.0201	+/–0.0288	0.0428	pCi/g						
Potassium–40		7.69	+/–0.957	0.272	+/–0.938	0.586	pCi/g						
Radium–226		0.475	+/–0.113	0.0405	+/–0.111	0.0858	pCi/g						
Silver–108m	U	–0.00276	+/–0.0237	0.0199	+/–0.0232	0.0418	pCi/g						
Thallium–208		0.118	+/–0.0466	0.0227	+/–0.0457	0.0479	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–HTD2,ALL2 (CT)													
Strontium–90	U	–0.0143	+/–0.00536	0.00497	+/–0.00538	0.0103	pCi/g		AF1	12/18/05	2149	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL2 (CT)													
Tritium	U	1.06	+/–1.79	1.46	+/–1.79	3.05	pCi/g		MXP1	12/14/05	0408	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/13/05	1134	487507
GL–RAD–A–026	Laboratory sample composite				487499

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–004–01C
Sample ID: 151782008

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	82	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-004-02C	Project:	YANK01204
Sample ID:	151782009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	08-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	3.28%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.381	+/-0.126	0.0527	+/-0.123	0.115	pCi/g		MJH1	12/14/05	1901	487705	1
Americium-241	U	-0.00313	+/-0.0292	0.024	+/-0.0286	0.0495	pCi/g						
Bismuth-212	U	0.183	+/-0.171	0.117	+/-0.168	0.252	pCi/g						
Bismuth-214		0.371	+/-0.101	0.0283	+/-0.0991	0.0607	pCi/g						
Cesium-134	U	0.00809	+/-0.0202	0.0176	+/-0.0198	0.038	pCi/g						
Cesium-137	U	0.010	+/-0.0319	0.0146	+/-0.0312	0.0315	pCi/g						
Cobalt-60	U	0.00366	+/-0.0182	0.0157	+/-0.0179	0.035	pCi/g						
Europium-152	U	-0.0117	+/-0.0451	0.0398	+/-0.0442	0.084	pCi/g						
Europium-154	U	0.0035	+/-0.054	0.0458	+/-0.0529	0.101	pCi/g						
Europium-155	U	-0.0257	+/-0.0429	0.0382	+/-0.042	0.079	pCi/g						
Lead-212		0.365	+/-0.0649	0.0233	+/-0.0636	0.0485	pCi/g						
Lead-214		0.404	+/-0.084	0.0288	+/-0.0823	0.0607	pCi/g						
Manganese-54	U	0.002	+/-0.0184	0.0163	+/-0.0181	0.035	pCi/g						
Niobium-94	U	0.0148	+/-0.028	0.0137	+/-0.0274	0.0295	pCi/g						
Potassium-40		7.47	+/-0.826	0.157	+/-0.809	0.349	pCi/g						
Radium-226		0.371	+/-0.101	0.0283	+/-0.0991	0.0607	pCi/g						
Silver-108m	U	0.00722	+/-0.0154	0.0141	+/-0.0151	0.0298	pCi/g						
Thallium-208		0.0849	+/-0.0363	0.0145	+/-0.0356	0.031	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	-0.012	+/-0.00567	0.00514	+/-0.00568	0.0106	pCi/g		AF1	12/18/05	2149	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		3.73	+/-2.01	1.54	+/-2.01	3.20	pCi/g		MXP1	12/14/05	0440	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507
GL-RAD-A-026	Laboratory sample composite				487499

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Certificate of Analysis

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Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–004–02C
Sample ID: 151782009

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	81	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-004-03C	Project:	YANK01204
Sample ID:	151782010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	08-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	3.74%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.325	+/-0.124	0.0592	+/-0.122	0.130	pCi/g		MJH1	12/14/05	1730	487705	1
Americium-241	U	0.00496	+/-0.023	0.0214	+/-0.0225	0.0445	pCi/g						
Bismuth-212		0.366	+/-0.235	0.123	+/-0.231	0.268	pCi/g						
Bismuth-214		0.273	+/-0.0795	0.032	+/-0.0779	0.0686	pCi/g						
Cesium-134	U	0.0231	+/-0.0224	0.0212	+/-0.022	0.0456	pCi/g						
Cesium-137		0.0409	+/-0.0259	0.0159	+/-0.0253	0.0344	pCi/g						
Cobalt-60	U	0.00215	+/-0.0245	0.0186	+/-0.024	0.0415	pCi/g						
Europium-152	U	0.0266	+/-0.0391	0.0363	+/-0.0383	0.0774	pCi/g						
Europium-154	U	-0.0211	+/-0.0605	0.0467	+/-0.0593	0.105	pCi/g						
Europium-155	U	0.038	+/-0.0435	0.0317	+/-0.0426	0.0665	pCi/g						
Lead-212		0.296	+/-0.0489	0.021	+/-0.048	0.0441	pCi/g						
Lead-214		0.280	+/-0.0774	0.0276	+/-0.0759	0.0587	pCi/g						
Manganese-54	U	-0.0024	+/-0.0169	0.0143	+/-0.0165	0.0314	pCi/g						
Niobium-94	U	-0.0145	+/-0.0164	0.013	+/-0.016	0.0284	pCi/g						
Potassium-40		6.03	+/-0.790	0.156	+/-0.774	0.355	pCi/g						
Radium-226		0.273	+/-0.0795	0.032	+/-0.0779	0.0686	pCi/g						
Silver-108m	U	0.000918	+/-0.0155	0.0134	+/-0.0152	0.0286	pCi/g						
Thallium-208		0.128	+/-0.0388	0.0128	+/-0.038	0.028	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	-0.0146	+/-0.00673	0.00603	+/-0.00674	0.0124	pCi/g		AF1	12/18/05	2149	488820	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.23	+/-1.73	1.40	+/-1.73	2.92	pCi/g		MXP1	12/14/05	0512	487531	4
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507
GL-RAD-A-026	Laboratory sample composite				487499

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–004–03C
Sample ID: 151782010

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	82	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-002-01C	Project:	YANK01204
Sample ID:	151782011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	07-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00589	+/-0.011	0.00619	+/-0.011	0.0271	pCi/g		BJB1	12/19/05	1339	487526	1
Curium-242	U	0.00435	+/-0.0116	0.00653	+/-0.0116	0.0286	pCi/g						
Curium-243/244	U	0.00957	+/-0.0153	0.0062	+/-0.0153	0.0271	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00328	+/-0.00455	0.011	+/-0.00456	0.0406	pCi/g		BJB1	12/22/05	1234	489487	2
Plutonium-239/240	U	0.00711	+/-0.020	0.0156	+/-0.020	0.0497	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	-0.769	+/-1.57	1.35	+/-1.58	2.77	pCi/g		BJB1	12/20/05	2024	487532	4
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.16	+/-0.279	0.237	+/-0.279	0.483	pCi/g		SLN1	12/15/05	1444	487529	5
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.13	+/-1.40	1.09	+/-1.40	2.22	pCi/g		BXF1	12/20/05	0932	487536	6
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.388	+/-1.50	1.25	+/-1.50	2.55	pCi/g		BXF1	12/28/05	1046	487537	7
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	-0.062	+/-0.362	0.306	+/-0.362	0.633	pCi/g		SLN1	12/20/05	2251	487525	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EPA EERF C-01 Modified

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Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801–0280–002–01C
Sample ID: 151782011

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
6	DOE RESL Fe–1, Modified										
7	DOE RESL Ni–1, Modified										
8	DOE EML HASL–300, Tc–02–RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid–TRI	103	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–TRU2,ALL2	85	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid–TRU2,A	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	61	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	78	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–HTD2,A	86	(15%–125%)

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID:	9801-0280-004-01C	Project:	YANK01204
Sample ID:	151782012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	08-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	3.54%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.000144	+/-0.00691	0.00709	+/-0.00691	0.031	pCi/g		BJB1	12/19/05	1339	487526	1
Curium-242	U	0.00656	+/-0.0129	0.00	+/-0.0129	0.0178	pCi/g						
Curium-243/244	U	0.00	+/-0.0122	0.00	+/-0.0122	0.0169	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.00822	+/-0.0186	0.0127	+/-0.0186	0.0427	pCi/g		BJB1	12/22/05	1234	489487	2
Plutonium-239/240	U	0.0134	+/-0.0266	0.0207	+/-0.0266	0.0588	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	-1.11	+/-1.66	1.43	+/-1.67	2.95	pCi/g		BJB1	12/20/05	2056	487532	4
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.239	+/-0.290	0.247	+/-0.290	0.504	pCi/g		SLN1	12/15/05	1546	487529	5
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.44	+/-1.36	1.07	+/-1.36	2.17	pCi/g		BXF1	12/20/05	1721	487536	6
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.974	+/-1.42	1.17	+/-1.42	2.40	pCi/g		BXF1	12/28/05	1148	487537	7
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.0749	+/-0.363	0.302	+/-0.363	0.625	pCi/g		SLN1	12/20/05	2308	487525	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	12/14/05	0537	487510
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/13/05	1134	487507

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EPA EERF C-01 Modified
6	DOE RESL Fe-1, Modified

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 29, 2005

Client Sample ID: 9801-0280-004-01C
Sample ID: 151782012

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
7	DOE RESL Ni-1, Modified										
8	DOE EML HASL-300, Tc-02-RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	86	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	94	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	78	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,A	57	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,A	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	87	(15%-125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 29, 2005

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 487526										
QC1200995505 151782011 DUP										
Americium-241	U	-0.00589	U	-0.00456	pCi/g	N/A		(0% - 100%)	BJB1	12/19/05 13:39
	Uncert:	+/-0.011		+/-0.0118						
	TPU:	+/-0.011		+/-0.0118						
Curium-242	U	0.00435	U	0.00	pCi/g	0		(0% - 100%)		
	Uncert:	+/-0.0116		+/-0.0124						
	TPU:	+/-0.0116		+/-0.0124						
Curium-243/244	U	0.00957	U	0.00	pCi/g	0		(0% - 100%)		
	Uncert:	+/-0.0153		+/-0.0118						
	TPU:	+/-0.0153		+/-0.0118						
QC1200995507 LCS										
Americium-241	2.70			2.74	pCi/g		101	(75%-125%)		
	Uncert:			+/-0.245						
	TPU:			+/-0.413						
Curium-242			U	0.00303	pCi/g					
	Uncert:			+/-0.0121						
	TPU:			+/-0.0121						
Curium-243/244	3.28			2.57	pCi/g		78	(75%-125%)		
	Uncert:			+/-0.238						
	TPU:			+/-0.393						
QC1200995504 MB										
Americium-241			U	-0.00432	pCi/g					
	Uncert:			+/-0.00774						
	TPU:			+/-0.00776						
Curium-242			U	-0.00144	pCi/g					
	Uncert:			+/-0.00283						
	TPU:			+/-0.00283						
Curium-243/244			U	-0.00141	pCi/g					
	Uncert:			+/-0.00276						
	TPU:			+/-0.00277						
QC1200995506 151782011 MS										
Americium-241	2.72 U	-0.00589		2.28	pCi/g		84	(75%-125%)		
	Uncert:	+/-0.011		+/-0.226						
	TPU:	+/-0.011		+/-0.359						
Curium-242	U	0.00435	U	-0.00148	pCi/g					
	Uncert:	+/-0.0116		+/-0.0029						
	TPU:	+/-0.0116		+/-0.0029						
Curium-243/244	3.30 U	0.00957		2.87	pCi/g		87	(75%-125%)		
	Uncert:	+/-0.0153		+/-0.254						
	TPU:	+/-0.0153		+/-0.433						
Batch 487532										
QC1200995525 151782011 DUP										
Plutonium-241	U	-0.769	U	-1.12	pCi/g	N/A		(0% - 100%)	BJB1	12/20/05 22:01

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 487532										
	Uncert:	+/-1.57		+/-1.51						
	TPU:	+/-1.58		+/-1.51						
QC1200995527 LCS										
Plutonium-241	35.9			31.7	pCi/g		88	(75%-125%)		12/20/05 23:05
	Uncert:			+/-2.47						
	TPU:			+/-3.98						
QC1200995524 MB										
Plutonium-241			U	-0.834	pCi/g					12/20/05 21:29
	Uncert:			+/-1.30						
	TPU:			+/-1.30						
QC1200995526 151782011 MS										
Plutonium-241	36.0 U	-0.769		34.9	pCi/g		97	(75%-125%)		12/20/05 22:33
	Uncert:	+/-1.57		+/-2.74						
	TPU:	+/-1.58		+/-4.63						
Batch 489487										
QC1200999947 151782011 DUP										
Plutonium-238	U	-0.00328	U	0.00591	pCi/g	N/A		(0% - 100%)	BJB1	12/22/05 12:34
	Uncert:	+/-0.00455		+/-0.0308						
	TPU:	+/-0.00456		+/-0.0308						
Plutonium-239/240	U	0.00711	U	0.0036	pCi/g	66		(0% - 100%)		
	Uncert:	+/-0.020		+/-0.0193						
	TPU:	+/-0.020		+/-0.0193						
QC1200999949 LCS										
Plutonium-238			U	-0.00511	pCi/g			(75%-125%)		
	Uncert:			+/-0.0132						
	TPU:			+/-0.0132						
Plutonium-239/240	2.33			2.40	pCi/g		103	(75%-125%)		
	Uncert:			+/-0.227						
	TPU:			+/-0.323						
QC1200999946 MB										
Plutonium-238			U	-0.00758	pCi/g					
	Uncert:			+/-0.0226						
	TPU:			+/-0.0226						
Plutonium-239/240			U	0.00896	pCi/g					
	Uncert:			+/-0.0206						
	TPU:			+/-0.0206						
QC1200999948 151782011 MS										
Plutonium-238	U	-0.00328	U	-0.00779	pCi/g			(75%-125%)		
	Uncert:	+/-0.00455		+/-0.00683						
	TPU:	+/-0.00456		+/-0.00688						
Plutonium-239/240	2.40 U	0.00711		2.40	pCi/g		100	(75%-125%)		
	Uncert:	+/-0.020		+/-0.245						
	TPU:	+/-0.020		+/-0.343						
Rad Gamma Spec										
Batch 487705										
QC1200995908 151782008 DUP										
Actinium-228		0.412		0.317	pCi/g	26		(0% - 100%)	MJH1	12/15/05 11:43
	Uncert:	+/-0.181		+/-0.0957						
				+/-0.0938						

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 487705											
	TPU:	+/-0.178									
Americium-241	U	0.00602	U	0.0469	pCi/g	155		(0% - 100%)			
	Uncert:	+/-0.0357		+/-0.0767							
	TPU:	+/-0.035		+/-0.0752							
Bismuth-212		0.405		0.256	pCi/g	45		(0% - 100%)			
	Uncert:	+/-0.258		+/-0.141							
	TPU:	+/-0.253		+/-0.138							
Bismuth-214		0.475		0.305	pCi/g	43		(0% - 100%)			
	Uncert:	+/-0.113		+/-0.0576							
	TPU:	+/-0.111		+/-0.0564							
Cesium-134	U	-0.00624	U	0.0132	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.030		+/-0.0132							
	TPU:	+/-0.0294		+/-0.0129							
Cesium-137	U	0.0422		0.040	pCi/g	5		(0% - 100%)			
	Uncert:	+/-0.0363		+/-0.0162							
	TPU:	+/-0.0356		+/-0.0159							
Cobalt-60	UUI	0.00	U	0.00883	pCi/g	138		(0% - 100%)			
	Uncert:	+/-0.0489		+/-0.0127							
	TPU:	+/-0.048		+/-0.0125							
Europium-152	U	-0.0485	U	-0.0287	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0684		+/-0.0303							
	TPU:	+/-0.0671		+/-0.0297							
Europium-154	U	0.0547	U	0.017	pCi/g	105		(0% - 100%)			
	Uncert:	+/-0.0796		+/-0.0431							
	TPU:	+/-0.078		+/-0.0423							
Europium-155	U	0.0644	U	0.0382	pCi/g	51		(0% - 100%)			
	Uncert:	+/-0.0615		+/-0.0412							
	TPU:	+/-0.0603		+/-0.0404							
Lead-212		0.352		0.324	pCi/g	8		(0% - 100%)			
	Uncert:	+/-0.0655		+/-0.0374							
	TPU:	+/-0.0642		+/-0.0367							
Lead-214		0.380		0.350	pCi/g	8		(0% - 100%)			
	Uncert:	+/-0.095		+/-0.0555							
	TPU:	+/-0.0931		+/-0.0543							
Manganese-54	U	0.0132	U	7.910E-05	pCi/g	198		(0% - 100%)			
	Uncert:	+/-0.0292		+/-0.0125							
	TPU:	+/-0.0286		+/-0.0122							
Niobium-94	U	-0.0213	U	0.001	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0294		+/-0.0124							
	TPU:	+/-0.0288		+/-0.0121							
Potassium-40		7.69		7.45	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.957		+/-0.505							
	TPU:	+/-0.938		+/-0.495							
Radium-226		0.475		0.305	pCi/g	43		(0% - 100%)			
	Uncert:	+/-0.113		+/-0.0576							
	TPU:	+/-0.111		+/-0.0564							
Silver-108m	U	-0.00276	U	2.350E-05	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0237		+/-0.0105							

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 487705										
	TPU:	+/-0.0232		+/-0.0103						
Thallium-208		0.118		0.102	pCi/g	15		(0% - 100%)		
	Uncert:	+/-0.0466		+/-0.0298						
	TPU:	+/-0.0457		+/-0.0292						
QC1200995909 LCS										
Actinium-228			U	-0.49	pCi/g					12/14/05 20:51
	Uncert:			+/-0.613						
	TPU:			+/-0.601						
Americium-241	24.4			25.3	pCi/g		104	(75%-125%)		
	Uncert:			+/-1.40						
	TPU:			+/-1.37						
Bismuth-212			U	-0.308	pCi/g					
	Uncert:			+/-1.02						
	TPU:			+/-0.997						
Bismuth-214			U	0.104	pCi/g					
	Uncert:			+/-0.239						
	TPU:			+/-0.235						
Cesium-134			U	-0.00252	pCi/g					
	Uncert:			+/-0.151						
	TPU:			+/-0.148						
Cesium-137	9.34			10.0	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.484						
	TPU:			+/-0.474						
Cobalt-60	13.8			14.9	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.673						
	TPU:			+/-0.660						
Europium-152			U	0.249	pCi/g					
	Uncert:			+/-0.292						
	TPU:			+/-0.286						
Europium-154			U	-0.0813	pCi/g					
	Uncert:			+/-0.275						
	TPU:			+/-0.269						
Europium-155			U	0.263	pCi/g					
	Uncert:			+/-0.309						
	TPU:			+/-0.303						
Lead-212			U	0.023	pCi/g					
	Uncert:			+/-0.161						
	TPU:			+/-0.158						
Lead-214			U	0.0716	pCi/g					
	Uncert:			+/-0.233						
	TPU:			+/-0.228						
Manganese-54			U	0.00165	pCi/g					
	Uncert:			+/-0.141						
	TPU:			+/-0.138						
Niobium-94			U	0.0519	pCi/g					
	Uncert:			+/-0.118						
	TPU:			+/-0.115						
Potassium-40			U	0.460	pCi/g					

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 487705											
	Uncert:			+/-1.30							
	TPU:			+/-1.28							
Radium-226			U	0.104	pCi/g			(75%-125%)			
	Uncert:			+/-0.239							
	TPU:			+/-0.235							
Silver-108m			U	-0.0919	pCi/g						
	Uncert:			+/-0.121							
	TPU:			+/-0.119							
Thallium-208			U	0.038	pCi/g						
	Uncert:			+/-0.123							
	TPU:			+/-0.120							
QC1200995907 MB											
Actinium-228			U	0.0149	pCi/g					12/14/05	17:31
	Uncert:			+/-0.0565							
	TPU:			+/-0.0553							
Americium-241			U	0.00509	pCi/g						
	Uncert:			+/-0.00934							
	TPU:			+/-0.00915							
Bismuth-212			U	0.0159	pCi/g						
	Uncert:			+/-0.0823							
	TPU:			+/-0.0807							
Bismuth-214			U	0.0296	pCi/g						
	Uncert:			+/-0.043							
	TPU:			+/-0.0422							
Cesium-134			U	0.00707	pCi/g						
	Uncert:			+/-0.0105							
	TPU:			+/-0.0103							
Cesium-137			U	-0.0107	pCi/g						
	Uncert:			+/-0.011							
	TPU:			+/-0.0107							
Cobalt-60			U	0.00111	pCi/g						
	Uncert:			+/-0.0118							
	TPU:			+/-0.0116							
Europium-152			U	-0.00391	pCi/g						
	Uncert:			+/-0.0271							
	TPU:			+/-0.0266							
Europium-154			U	-0.0189	pCi/g						
	Uncert:			+/-0.042							
	TPU:			+/-0.0412							
Europium-155			U	-0.00965	pCi/g						
	Uncert:			+/-0.0179							
	TPU:			+/-0.0175							
Lead-212			U	0.0026	pCi/g						
	Uncert:			+/-0.0213							
	TPU:			+/-0.0209							
Lead-214			U	0.00222	pCi/g						
	Uncert:			+/-0.0197							
	TPU:			+/-0.0193							

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 487705										
Manganese-54			U	0.0104	pCi/g					
	Uncert:			+/-0.0106						
	TPU:			+/-0.0104						
Niobium-94			U	0.00659	pCi/g					
	Uncert:			+/-0.0101						
	TPU:			+/-0.00989						
Potassium-40			U	0.0461	pCi/g					
	Uncert:			+/-0.173						
	TPU:			+/-0.170						
Radium-226			U	0.0296	pCi/g					
	Uncert:			+/-0.043						
	TPU:			+/-0.0422						
Silver-108m			U	-0.00333	pCi/g					
	Uncert:			+/-0.00892						
	TPU:			+/-0.00874						
Thallium-208			U	0.00354	pCi/g					
	Uncert:			+/-0.0131						
	TPU:			+/-0.0128						
Rad Gas Flow										
Batch 488820										
QC1200998559 151782009 DUP										
Strontium-90	U	-0.012	U	-0.00333	pCi/g	N/A		(0% - 100%)	AF1	12/18/05 21:49
	Uncert:	+/-0.00567		+/-0.0042						
	TPU:	+/-0.00568		+/-0.0042						
QC1200998561 LCS										
Strontium-90	0.713			0.667	pCi/g		94	(75%-125%)		12/18/05 21:05
	Uncert:			+/-0.0468						
	TPU:			+/-0.0509						
QC1200998558 MB										
Strontium-90			U	-0.0407	pCi/g					12/18/05 21:49
	Uncert:			+/-0.00465						
	TPU:			+/-0.00474						
QC1200998560 151782009 MS										
Strontium-90	1.64 U	-0.012		1.23	pCi/g		75	(75%-125%)		12/18/05 21:05
	Uncert:	+/-0.00567		+/-0.106						
	TPU:	+/-0.00568		+/-0.112						
Rad Liquid Scintillation										
Batch 487525										
QC1200995517 151782011 DUP										
Technetium-99	U	-0.062	U	-0.053	pCi/g	N/A		(0% - 100%)	SLN1	12/20/05 23:42
	Uncert:	+/-0.362		+/-0.356						
	TPU:	+/-0.362		+/-0.356						
QC1200995519 LCS										
Technetium-99	22.3			20.8	pCi/g		93	(75%-125%)		12/21/05 00:15
	Uncert:			+/-0.814						
	TPU:			+/-0.943						
QC1200995516 MB										
Technetium-99			U	0.135	pCi/g					12/20/05 23:25

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 487525										
	Uncert:			+/-0.328						
	TPU:			+/-0.328						
QC1200995518 151782011 MS										
Technetium-99	22.3 U	-0.062		20.6	pCi/g		92	(75%-125%)		12/20/05 23:58
	Uncert:	+/-0.362		+/-0.837						
	TPU:	+/-0.362		+/-0.962						
Batch 487529										
QC1200995521 151782011 DUP										
Carbon-14	U	-0.16	U	-0.184	pCi/g	N/A		(0% - 100%)	SLN1	12/15/05 17:51
	Uncert:	+/-0.279		+/-0.276						
	TPU:	+/-0.279		+/-0.276						
QC1200995523 LCS										
Carbon-14	20.4			20.3	pCi/g		99	(75%-125%)		12/15/05 19:56
	Uncert:			+/-0.569						
	TPU:			+/-0.652						
QC1200995520 MB										
Carbon-14			U	0.266	pCi/g					12/15/05 16:49
	Uncert:			+/-0.285						
	TPU:			+/-0.286						
QC1200995522 151782011 MS										
Carbon-14	20.6 U	-0.16		19.7	pCi/g		96	(75%-125%)		12/15/05 18:53
	Uncert:	+/-0.279		+/-0.566						
	TPU:	+/-0.279		+/-0.645						
Batch 487531										
QC1200995529 151782001 DUP										
Tritium	U	0.781		1.62	pCi/g	70		(0% - 100%)	MXP1	12/14/05 20:46
	Uncert:	+/-0.721		+/-0.885						
	TPU:	+/-0.721		+/-0.885						
QC1200995531 LCS										
Tritium	11.6			9.06	pCi/g		78	(75%-125%)		12/14/05 07:04
	Uncert:			+/-1.61						
	TPU:			+/-1.61						
QC1200995528 MB										
Tritium			U	0.554	pCi/g					12/14/05 05:44
	Uncert:			+/-0.869						
	TPU:			+/-0.869						
QC1200995530 151782001 MS										
Tritium	11.6 U	0.781		12.2	pCi/g		106	(75%-125%)		12/14/05 06:48
	Uncert:	+/-0.721		+/-2.90						
	TPU:	+/-0.721		+/-2.91						
Batch 487536										
QC1200995541 151782011 DUP										
Iron-55	U	-1.13	U	-2.59	pCi/g	N/A		(0% - 100%)	BXF1	12/20/05 20:28
	Uncert:	+/-1.40		+/-1.43						
	TPU:	+/-1.40		+/-1.44						
QC1200995543 LCS										
Iron-55	56.7			56.3	pCi/g		99	(75%-125%)		12/20/05 22:17
	Uncert:			+/-5.26						
	TPU:			+/-7.13						

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 487536										
QC1200995540 MB										
Iron-55			U	-0.432	pCi/g					12/20/05 18:54
	Uncert:			+/-1.24						
	TPU:			+/-1.24						
QC1200995542 151782011 MS										
Iron-55	59.7 U	-1.13		60.5	pCi/g		101	(75%-125%)		12/20/05 22:00
	Uncert:	+/-1.40		+/-5.78						
	TPU:	+/-1.40		+/-8.56						
Batch 487537										
QC1200995545 151782011 DUP										
Nickel-63	U	0.388	U	0.626	pCi/g	0		(0% - 100%)	BXF1	12/28/05 13:53
	Uncert:	+/-1.50		+/-1.73						
	TPU:	+/-1.50		+/-1.73						
QC1200995547 LCS										
Nickel-63	167			153	pCi/g		91	(75%-125%)		12/28/05 15:13
	Uncert:			+/-6.95						
	TPU:			+/-7.93						
QC1200995544 MB										
Nickel-63			U	0.333	pCi/g					12/28/05 12:51
	Uncert:			+/-1.33						
	TPU:			+/-1.33						
QC1200995546 151782011 MS										
Nickel-63	171 U	0.388		148	pCi/g		87	(75%-125%)		12/28/05 14:56
	Uncert:	+/-1.50		+/-7.13						
	TPU:	+/-1.50		+/-8.04						

Notes:
The Qualifiers in this report are defined as follows:

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 151782

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

9801-0280-001S	MSR#05-2782	151782001	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.949	0.233	PCI/G	0		14/12/2005	38688.12083	12:05	0.12	PCI/G	0.0565	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	-0.17	0.125	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.199	PCI/G	0.0968	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.516	0.282	PCI/G	0		14/12/2005	38688.12083	12:05	0.252	PCI/G	0.119	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.926	0.119	PCI/G	0		14/12/2005	38688.12083	12:05	0.0617	PCI/G	0.0294	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0	0.04	PCI/G	0	UUI	14/12/2005	38688.12083	12:05	0.0424	PCI/G	0.0202	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.775	0.0822	PCI/G	0		14/12/2005	38688.12083	12:05	0.033	PCI/G	0.0157	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.0806	0.037	PCI/G	0		14/12/2005	38688.12083	12:05	0.0334	PCI/G	0.0153	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.00728	0.052	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.0838	PCI/G	0.0403	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0445	0.0565	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.094	PCI/G	0.0433	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.0106	0.0567	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.105	PCI/G	0.051	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.96	0.111	PCI/G	0		14/12/2005	38688.12083	12:05	0.0501	PCI/G	0.0243	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.974	0.14	PCI/G	0		14/12/2005	38688.12083	12:05	0.0603	PCI/G	0.029	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	-0.00614	0.02	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.0339	PCI/G	0.016	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	0.0153	0.0159	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.0297	PCI/G	0.0141	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	16.4	1.41	PCI/G	0		14/12/2005	38688.12083	12:05	0.304	PCI/G	0.138	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.926	0.119	PCI/G	0		14/12/2005	38688.12083	12:05	0.0617	PCI/G	0.0284	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.00179	0.0173	PCI/G	0	U	14/12/2005	38688.12083	12:05	0.0314	PCI/G	0.0151	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.0945	0.00947	PCI/G	0		14/12/2005	38688.33194	9:16	0.0114	PCI/G	0.00555	PCI/G	1	16	18.4	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.268	0.0489	PCI/G	0		14/12/2005	38688.12083	12:05	0.0325	PCI/G	0.0155	PCI/G	1	16	151	G	PCI/G	PR	
9801-0280-001S	MSR#05-2782	151782001	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	0.781	0.721	PCI/G	0	U		14/12/2005	6:42	1.2	PCI/G	0.587	PCI/G	1	16	12.3	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.49	0.168	PCI/G	0		13/12/2005	38689.82917	12:08	0.13	PCI/G	0.061	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.0101	0.0288	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0475	PCI/G	0.0231	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0	0.461	PCI/G	0	UUI	13/12/2005	38689.82917	12:08	0.244	PCI/G	0.114	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.391	0.0864	PCI/G	0		13/12/2005	38689.82917	12:08	0.0637	PCI/G	0.0301	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0271	0.0213	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0412	PCI/G	0.0194	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.0296	0.0357	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0365	PCI/G	0.0172	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.0038	0.0174	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.033	PCI/G	0.0149	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0397	0.0487	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0848	PCI/G	0.0405	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0175	0.0598	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.105	PCI/G	0.0482	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.012	0.0453	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0825	PCI/G	0.0401	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.386	0.0668	PCI/G	0		13/12/2005	38689.82917	12:08	0.0467	PCI/G	0.0225	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.393	0.077	PCI/G	0		13/12/2005	38689.82917	12:08	0.0656	PCI/G	0.0314	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.00338	0.0185	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0344	PCI/G	0.0161	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.00153	0.0184	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0323	PCI/G	0.0152	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	7.09	0.794	PCI/G	0		13/12/2005	38689.82917	12:08	0.28	PCI/G	0.124	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.391	0.0864	PCI/G	0		13/12/2005	38689.82917	12:08	0.0637	PCI/G	0.0301	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	-0.00967	0.0173	PCI/G	0	U	13/12/2005	38689.82917	12:08	0.0301	PCI/G	0.0143	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.00179	0.00453	PCI/G	0	U	14/12/2005	38689.72083	9:16	0.00775	PCI/G	0.00374	PCI/G	1	4.6	18.9	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.141	0.0433	PCI/G	0		13/12/2005	38689.82917	12:08	0.0315	PCI/G	0.0148	PCI/G	1	4.6	154	G	PCI/G	PR	
9801-0280-002-01C	MSR#05-2782	151782002	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	0.579	1.73	PCI/G	0	U		14/12/2005	12:58	2.97	PCI/G	1.43	PCI/G	1	4.6	12.8	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.363	0.141	PCI/G	0		13/12/2005	38689.82917	5:26	0.111	PCI/G	0.0499	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.0234	0.0855	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.146	PCI/G	0.0702	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.164	0.163	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.253	PCI/G	0.116	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.39	0.0781	PCI/G	0		13/12/2005	38689.82917	5:26	0.0618	PCI/G	0.0286	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0111	0.0214	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0411	PCI/G	0.019	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	-0.0123	0.0169	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0282	PCI/G	0.0133	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.00629	0.024	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.041	PCI/G	0.0184	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	0.0236	0.0529	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0977	PCI/G	0.0464	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0248	0.0555	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.099	PCI/G	0.0439	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	-0.00338	0.0459	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0891	PCI/G	0.0427	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.265	0.075	PCI/G	0		13/12/2005	38689.82917	5:26	0.0606	PCI/G	0.0292	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.345	0.0795	PCI/G	0		13/12/2005	38689.82917	5:26	0.0659	PCI/G	0.0311	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.00717	0.019	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0359	PCI/G	0.0165	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.00957	0.0171	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0299	PCI/G	0.0138	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	6.06	0.709	PCI/G	0		13/12/2005	38689.82917	5:26	0.256	PCI/G	0.107	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.39	0.0781	PCI/G	0		13/12/2005	38689.82917	5:26	0.0618	PCI/G	0.0286	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.00296	0.0177	PCI/G	0	U	13/12/2005	38689.82917	5:26	0.0318	PCI/G	0.0149	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.00374	0.00419	PCI/G	0	U	14/12/2005	38689.79028	10:58	0.00701	PCI/G	0.00337	PCI/G	1	3.8	18.9	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.135	0.0444	PCI/G	0		13/12/2005	38689.82917	5:26	0.0336	PCI/G	0.0156	PCI/G	1	3.8	162	G	PCI/G	PR	
9801-0280-002-02C	MSR#05-2782	151782003	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	2.85	1.93	PCI/G	0	U		14/12/2005	1:29	3.14	PCI/G	1.51	PCI/G	1	3.8	12.4	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.324	0.107	PCI/G	0		13/12/2005	38689.82917	5:27	0.0857	PCI/G	0.0381	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	-0.0367	0.0794	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.11	PCI/G	0.0525	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.131	0.147	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.235	PCI/G	0.108	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.298	0.0671	PCI/G	0		13/12/2005	38689.82917	5:27	0.0595	PCI/G	0.0277	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0177	0.0308	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0393	PCI/G	0.0183	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.00064	0.0163	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.03	PCI/G	0.0138	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.00618	0.0192	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.037	PCI/G	0.0166	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.00725	0.0475	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0738	PCI/G	0.0346	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0408	0.0519	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.086	PCI/G	0.038	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.0126	0.0421	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0821	PCI/G	0.0394	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.336	0.0458	PCI/G	0		13/12/2005	38689.82917	5:27	0.0435	PCI/G	0.0207	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.356	0.0679	PCI/G	0		13/12/2005	38689.82917	5:27	0.0633	PCI/G	0.03	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	-0.00312	0.0171	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.03	PCI/G	0.0138	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	0.00109	0.0142	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0261	PCI/G	0.012	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	6.79	0.725	PCI/G	0		13/12/2005	38689.82917	5:27	0.332	PCI/G	0.149	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.298	0.0671	PCI/G	0		13/12/2005	38689.82917	5:27	0.0595	PCI/G	0.0277	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.00686	0.0139	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0272	PCI/G	0.0127	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.00259	0.00536	PCI/G	0	U	14/12/2005	38689.79028	10:58	0.00914	PCI/G	0.0044	PCI/G	1	4.1	18.7	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.108	0.0318	PCI/G	0		13/12/2005	38689.82917	5:27	0.0293	PCI/G	0.0136	PCI/G	1	4.1	160	G	PCI/G	PR	
9801-0280-002-03C	MSR#05-2782	151782004	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	1.82	1.9	PCI/G	0	U		14/12/2005	2:01	3.16	PCI/G	1.52	PCI/G	1	4.1	12.1	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.458	0.141	PCI/G	0		13/12/2005	38689.82917	5:27	0.0971	PCI/G	0.0444	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.0751	0.0856	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.169	PCI/G	0.0816	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0	0.29	PCI/G	0	UUI	13/12/2005	38689.82917	5:27	0.215	PCI/G	0.0998	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.522	0.0917	PCI/G	0		13/12/2005	38689.82917	5:27	0.0521	PCI/G	0.0243	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0143	0.0168	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0328	PCI/G	0.0152	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.0495	0.0259	PCI/G	0		13/12/2005	38689.82917	5:27	0.0299	PCI/G	0.014	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	-0.011	0.0188	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0322	PCI/G	0.0144	PCI/G	1	5.2	169	G	PCI/G	PR	
9801-0280-003-01C	MSR#05-2782	151782005	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0237	0.0393	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0718	PCI/G	0.0339	PCI/G	1	5.2	169	G	PCI/G	PR	

9801-0280-003-01C	MSR#05-2782	151782005	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0153	0.052	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0929	PCI/G	0.042	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.0429	0.0451	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0889	PCI/G	0.0429	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.334	0.0638	PCI/G	0		13/12/2005	38689.82917	5:27	0.0427	PCI/G	0.0204	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.648	0.102	PCI/G	0		13/12/2005	38689.82917	5:27	0.0497	PCI/G	0.0234	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.00368	0.0158	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0289	PCI/G	0.0134	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	0.0034	0.0159	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0291	PCI/G	0.0136	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	6.71	0.783	PCI/G	0		13/12/2005	38689.82917	5:27	0.242	PCI/G	0.104	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.522	0.0917	PCI/G	0		13/12/2005	38689.82917	5:27	0.0521	PCI/G	0.0243	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.000601	0.0128	PCI/G	0	U	13/12/2005	38689.82917	5:27	0.0241	PCI/G	0.0113	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.0237	0.0056	PCI/G	0		14/12/2005	38689.79028	10:58	0.00801	PCI/G	0.00385	PCI/G	1	5.2	19	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.138	0.0431	PCI/G	0		13/12/2005	38689.82917	5:27	0.0288	PCI/G	0.0135	PCI/G	1	5.2	169	G	PCI/G	PR				
9801-0280-003-01C	MSR#05-2782	151782005	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	0.887	1.82	PCI/G	0	U		14/12/2005	2:33	3.1	PCI/G	1.49	PCI/G	1	5.2	12.4	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.398	0.119	PCI/G	0		13/12/2005	38689.82917	5:28	0.119	PCI/G	0.0549	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.0213	0.0821	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.129	PCI/G	0.062	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.602	0.272	PCI/G	0		13/12/2005	38689.82917	5:28	0.238	PCI/G	0.11	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.377	0.0867	PCI/G	0		13/12/2005	38689.82917	5:28	0.0584	PCI/G	0.0273	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0261	0.0246	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0396	PCI/G	0.0185	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.00812	0.0183	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0347	PCI/G	0.0162	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.00691	0.0189	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0364	PCI/G	0.0165	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0165	0.0494	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.079	PCI/G	0.0374	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0187	0.0569	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.101	PCI/G	0.0456	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.00206	0.0481	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0923	PCI/G	0.0446	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.348	0.0623	PCI/G	0		13/12/2005	38689.82917	5:28	0.0455	PCI/G	0.0218	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.44	0.0878	PCI/G	0		13/12/2005	38689.82917	5:28	0.0591	PCI/G	0.0288	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.00348	0.0175	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0333	PCI/G	0.0155	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.00567	0.0163	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0286	PCI/G	0.0133	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	7.73	0.914	PCI/G	0		13/12/2005	38689.82917	5:28	0.33	PCI/G	0.148	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.377	0.0867	PCI/G	0		13/12/2005	38689.82917	5:28	0.0584	PCI/G	0.0273	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.000102	0.016	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0299	PCI/G	0.0141	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	-0.0161	0.0052	PCI/G	0	U	14/12/2005	38689.79028	9:46	0.0101	PCI/G	0.00489	PCI/G	1	3.5	18.9	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.11	0.0481	PCI/G	0		13/12/2005	38689.82917	5:28	0.0299	PCI/G	0.0139	PCI/G	1	3.5	190	G	PCI/G	PR				
9801-0280-003-02C	MSR#05-2782	151782006	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	0.595	1.77	PCI/G	0	U		14/12/2005	3:05	3.05	PCI/G	1.46	PCI/G	1	3.5	12.5	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.335	0.136	PCI/G	0		13/12/2005	38689.82917	5:28	0.101	PCI/G	0.0461	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	-0.0328	0.06	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.112	PCI/G	0.0539	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.23	0.178	PCI/G	0		13/12/2005	38689.82917	5:28	0.218	PCI/G	0.1	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.241	0.0668	PCI/G	0		13/12/2005	38689.82917	5:28	0.0528	PCI/G	0.0246	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0283	0.0216	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0361	PCI/G	0.0168	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.00823	0.0168	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0324	PCI/G	0.0151	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	-0.0155	0.0153	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0245	PCI/G	0.0105	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	0.0231	0.0369	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0728	PCI/G	0.0344	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.00616	0.0483	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0895	PCI/G	0.0401	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	-0.0161	0.0426	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0781	PCI/G	0.0375	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.316	0.0483	PCI/G	0		13/12/2005	38689.82917	5:28	0.0399	PCI/G	0.019	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.316	0.0621	PCI/G	0		13/12/2005	38689.82917	5:28	0.0454	PCI/G	0.0212	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	-0.00327	0.0152	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0269	PCI/G	0.0123	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.00157	0.0139	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.0251	PCI/G	0.0116	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	6.42	0.798	PCI/G	0		13/12/2005	38689.82917	5:28	0.276	PCI/G	0.121	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.241	0.0668	PCI/G	0		13/12/2005	38689.82917	5:28	0.0528	PCI/G	0.0246	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	-0.00609	0.0122	PCI/G	0	U	13/12/2005	38689.82917	5:28	0.022	PCI/G	0.0102	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	-0.00809	0.00492	PCI/G	0	U	14/12/2005	38689.79028	9:49	0.00908	PCI/G	0.0044	PCI/G	1	3.4	21.8	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.103	0.0305	PCI/G	0		13/12/2005	38689.82917	5:28	0.0243	PCI/G	0.0112	PCI/G	1	3.4	178	G	PCI/G	PR				
9801-0280-003-03C	MSR#05-2782	151782007	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	1.03	1.83	PCI/G	0	U		14/12/2005	3:37	3.12	PCI/G	1.49	PCI/G	1	3.4	12.3	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.412	0.181	PCI/G	0		13/12/2005	38689.82917	5:29	0.187	PCI/G	0.088	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.00602	0.0357	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.0674	PCI/G	0.0327	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.405	0.258	PCI/G	0		13/12/2005	38689.82917	5:29	0.359	PCI/G	0.168	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.475	0.113	PCI/G	0		13/12/2005	38689.82917	5:29	0.0858	PCI/G	0.0405	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	-0.00624	0.03	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.053	PCI/G	0.0249	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.0422	0.0363	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.0501	PCI/G	0.0237	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0	0.0489	PCI/G	0	UUI	13/12/2005	38689.82917	5:29	0.0476	PCI/G	0.0217	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0485	0.0684	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.119	PCI/G	0.0566	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	0.0547	0.0796	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.154	PCI/G	0.0713	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.0644	0.0615	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.115	PCI/G	0.056	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.352	0.0655	PCI/G	0		13/12/2005	38689.82917	5:29	0.0658	PCI/G	0.0317	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.38	0.095	PCI/G	0		13/12/2005	38689.82917	5:29	0.0894	PCI/G	0.0427	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.0132	0.0292	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.0535	PCI/G	0.0253	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.0213	0.0294	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.0428	PCI/G	0.0201	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	7.69	0.957	PCI/G	0		13/12/2005	38689.82917	5:29	0.586	PCI/G	0.272	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.475	0.113	PCI/G	0		13/12/2005	38689.82917	5:29	0.0858	PCI/G	0.0405	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	-0.00276	0.0237	PCI/G	0	U	13/12/2005	38689.82917	5:29	0.0418	PCI/G	0.0199	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	-0.0143	0.00536	PCI/G	0	U	14/12/2005	38689.79028	9:49	0.0103	PCI/G	0.00497	PCI/G	1	3.5	18.8	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.118	0.0466	PCI/G	0		13/12/2005	38689.82917	5:29	0.0479	PCI/G	0.0227	PCI/G	1	3.5	149	G	PCI/G	PR				
9801-0280-004-01C	MSR#05-2782	151782008	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	1.06	1.79	PCI/G	0	U		14/12/2005	4:08	3.05	PCI/G	1.46	PCI/G	1	3.5	12.6	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.381	0.126	PCI/G	0		13/12/2005	38689.82917	7:01	0.115	PCI/G	0.0527	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	-0.00313	0.0292	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.0495	PCI/G	0.024	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.183	0.171	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.252	PCI/G	0.117	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.371	0.101	PCI/G	0		13/12/2005	38689.82917	7:01	0.0607	PCI/G	0.0283	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.00809	0.0202	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.038	PCI/G	0.0178	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.01	0.0319	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.0315	PCI/G	0.0146	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.00366	0.0182	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.035	PCI/G	0.0157	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0117	0.0451	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.084	PCI/G	0.0398	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	0.0035	0.054	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.101	PCI/G	0.0458	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	-0.0257	0.0429	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.079	PCI/G	0.0382	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.365	0.0649	PCI/G	0		13/12/2005	38689.82917	7:01	0.0485	PCI/G	0.0233	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.404	0.084	PCI/G	0		13/12/2005	38689.82917	7:01	0.0607	PCI/G	0.0288	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	0.002	0.0184	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.035	PCI/G	0.0163	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	0.0148	0.028	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.0295	PCI/G	0.0137	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	7.47	0.826	PCI/G	0		13/12/2005	38689.82917	7:01	0.349	PCI/G	0.157	PCI/G	1	3.3	188	G	PCI/G	PR				
9801-0280-004-02C	MSR#05-2782	151782009	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.371	0.101	PCI/G	0		13/12/2005	38689.82917	7:01	0.0607	PCI/G	0.0283	PCI/G	1	3.3	188	G	PCI/G	PR				

9801-0280-004-02C	MSR#05-2782	151782009	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.00722	0.0154	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.0298	PCI/G	0.0141	PCI/G	1	3.3	188	G		PCI/G			PR								
9801-0280-004-02C	MSR#05-2782	151782009	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	-0.012	0.00567	PCI/G	0	U	14/12/2005	38689.79028	9:49	0.0106	PCI/G	0.00514	PCI/G	1	3.3	18.9	G		PCI/G			PR								
9801-0280-004-02C	MSR#05-2782	151782009	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.0849	0.0363	PCI/G	0	U	13/12/2005	38689.82917	7:01	0.031	PCI/G	0.0145	PCI/G	1	3.3	188	G		PCI/G			PR								
9801-0280-004-02C	MSR#05-2782	151782009	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	3.73	2.01	PCI/G	0			14/12/2005	4:40	3.2	PCI/G	1.54	PCI/G	1	3.3	12	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	0.325	0.124	PCI/G	0		13/12/2005	38689.82917	5:30	0.13	PCI/G	0.0592	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	0.00496	0.023	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0445	PCI/G	0.0214	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	0.366	0.235	PCI/G	0		13/12/2005	38689.82917	5:30	0.268	PCI/G	0.123	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	0.273	0.0795	PCI/G	0		13/12/2005	38689.82917	5:30	0.0686	PCI/G	0.032	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.0231	0.0224	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0456	PCI/G	0.0212	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	0.0409	0.0259	PCI/G	0		13/12/2005	38689.82917	5:30	0.0344	PCI/G	0.0159	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	0.00215	0.0245	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0415	PCI/G	0.0186	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	0.0266	0.0391	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0774	PCI/G	0.0363	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0211	0.0605	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.105	PCI/G	0.0467	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	0.038	0.0435	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0665	PCI/G	0.0317	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	0.296	0.0489	PCI/G	0		13/12/2005	38689.82917	5:30	0.0441	PCI/G	0.021	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	0.28	0.0774	PCI/G	0		13/12/2005	38689.82917	5:30	0.0587	PCI/G	0.0276	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	-0.0024	0.0169	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0314	PCI/G	0.0143	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	-0.0145	0.0164	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0284	PCI/G	0.013	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	6.03	0.79	PCI/G	0		13/12/2005	38689.82917	5:30	0.355	PCI/G	0.156	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	0.273	0.0795	PCI/G	0		13/12/2005	38689.82917	5:30	0.0686	PCI/G	0.032	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.000918	0.0155	PCI/G	0	U	13/12/2005	38689.82917	5:30	0.0286	PCI/G	0.0134	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	488820	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	-0.0146	0.00673	PCI/G	0	U	14/12/2005	38689.79028	9:49	0.0124	PCI/G	0.00603	PCI/G	1	3.7	18.9	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	0.128	0.0388	PCI/G	0		13/12/2005	38689.82917	5:30	0.028	PCI/G	0.0128	PCI/G	1	3.7	175	G		PCI/G			PR								
9801-0280-004-03C	MSR#05-2782	151782010	487531	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	1.23	1.73	PCI/G	0	U		14/12/2005	5:12	2.92	PCI/G	1.4	PCI/G	1	3.7	12.9	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487526	14596-10-2	Americium-241	TRG 1	UAM05RCM	AM05RCM	REG	-0.00589	0.011	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.0271	PCI/G	0.00619	PCI/G	1	4.6	1	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487529	14762-75-5	Carbon-14	TRG 5	ULSC	LSC	REG	-0.16	0.279	PCI/G	0	U		15/12/2005	2:44	0.483	PCI/G	0.237	PCI/G	1	4.6	3.18	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487526	OER-100-93	Curium-242	TRG 1	UAM05RCM	AM05RCM	REG	0.00435	0.0116	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.0286	PCI/G	0.00653	PCI/G	1	4.6	1	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487526	OER-101-57	Curium-243/244	TRG 1	UAM05RCM	AM05RCM	REG	0.00957	0.0153	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.0271	PCI/G	0.0062	PCI/G	1	4.6	1	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487536	14681-59-5	Iron-55	TRG 26	ULSC	LSC	REG	-1.13	1.4	PCI/G	0	U	14/12/2005	38689.79167	9:32	2.22	PCI/G	1.09	PCI/G	1	4.6	3.17	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487537	13781-37-8	Nickel-63	TRG 30	ULSC	LSC	REG	0.388	1.5	PCI/G	0	U	14/12/2005	38689.79722	10:46	2.55	PCI/G	1.25	PCI/G	1	4.6	0.861	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	489487	13981-16-3	Plutonium-238	TRG 32	UPU11RCM	PU11RCM	REG	-0.00328	0.00455	PCI/G	0	U	14/12/2005	38689.79306	12:34	0.0406	PCI/G	0.011	PCI/G	1	4.6	1.04	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	489487	OER-100-70	Plutonium-239/240	TRG 32	UPU11RCM	PU11RCM	REG	0.00711	0.02	PCI/G	0	U	14/12/2005	38689.79306	12:34	0.0497	PCI/G	0.0156	PCI/G	1	4.6	1.04	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487532	14119-32-5	Plutonium-241	TRG 36	UPU11RCM	PU11RCM	REG	-0.769	1.57	PCI/G	0	U	14/12/2005	38689.79167	8:24	2.77	PCI/G	1.35	PCI/G	1	4.6	2.02	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	151782011	487525	14133-76-7	Technetium-99	TRG 46	UTC02RCM	TC02RCM	REG	-0.062	0.362	PCI/G	0	U		20/12/2005	10:51	0.633	PCI/G	0.306	PCI/G	1	4.6	5.15	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487526	14596-10-2	Americium-241	TRG 1	UAM05RCM	AM05RCM	REG	0.000144	0.00691	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.031	PCI/G	0.00709	PCI/G	1	3.5	1	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487529	14762-75-5	Carbon-14	TRG 5	ULSC	LSC	REG	-0.239	0.29	PCI/G	0	U		15/12/2005	3:46	0.504	PCI/G	0.247	PCI/G	1	3.5	3.05	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487526	OER-100-93	Curium-242	TRG 1	UAM05RCM	AM05RCM	REG	0.00656	0.0129	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.0178	PCI/G	0	PCI/G	1	3.5	1	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487526	OER-101-57	Curium-243/244	TRG 1	UAM05RCM	AM05RCM	REG	0	0.0122	PCI/G	0	U	14/12/2005	38689.79097	1:39	0.0169	PCI/G	0	PCI/G	1	3.5	1	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487536	14681-59-5	Iron-55	TRG 26	ULSC	LSC	REG	-1.44	1.36	PCI/G	0	U	14/12/2005	38689.79167	5:21	2.17	PCI/G	1.07	PCI/G	1	3.5	3.23	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487537	13781-37-8	Nickel-63	TRG 30	ULSC	LSC	REG	0.974	1.42	PCI/G	0	U	14/12/2005	38689.79722	11:48	2.4	PCI/G	1.17	PCI/G	1	3.5	0.892	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	489487	13981-16-3	Plutonium-238	TRG 32	UPU11RCM	PU11RCM	REG	0.00822	0.0186	PCI/G	0	U	14/12/2005	38689.79306	12:34	0.0427	PCI/G	0.0127	PCI/G	1	3.5	1.08	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	489487	OER-100-70	Plutonium-239/240	TRG 32	UPU11RCM	PU11RCM	REG	0.0134	0.0266	PCI/G	0	U	14/12/2005	38689.79306	12:34	0.0588	PCI/G	0.0207	PCI/G	1	3.5	1.08	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487532	14119-32-5	Plutonium-241	TRG 36	UPU11RCM	PU11RCM	REG	-1.11	1.66	PCI/G	0	U	14/12/2005	38689.79167	8:56	2.95	PCI/G	1.43	PCI/G	1	3.5	2.01	G		PCI/G			PR								
9801-0280-004-01C	MSR#05-2782	151782012	487525	14133-76-7	Technetium-99	TRG 46	UTC02RCM	TC02RCM	REG	0.0749	0.363	PCI/G	0	U		20/12/2005	11:08	0.625	PCI/G	0.302	PCI/G	1	3.5	5.16	G		PCI/G			PR								
	MSR#05-2782	1200995504	487526	14596-10-2	Americium-241	TRG	U	AM05RCM	LB1	-0.00432	0.00774	PCI/G	0	U		19/12/2005	1:39	0.0426	PCI/G	0.0134	PCI/G	1	0	1.01	G		PCI/G			PR								
	MSR#05-2782	1200995504	487526	OER-100-93	Curium-242	TRG	U	AM05RCM	LB1	-0.00144	0.00283	PCI/G	0	U		19/12/2005	1:39	0.03	PCI/G	0.00685	PCI/G	1	0	1.01	G		PCI/G			PR								
	MSR#05-2782	1200995504	487526	OER-101-57	Curium-243/244	TRG	U	AM05RCM	LB1	-0.00141	0.00276	PCI/G	0	U		19/12/2005	1:39	0.0293	PCI/G	0.00669	PCI/G	1	0	1.01	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995505	487526	14596-10-2	Americium-241	TRG	U	AM05RCM	LR1	-0.00456	0.0118	PCI/G	0	U		19/12/2005	1:39	0.0163	PCI/G	0	PCI/G	1	4.6	1.01	G		PCI/G	-0.0		0589	PR							
9801-0280-002-01C	MSR#05-2782	1200995505	487526	OER-100-93	Curium-242	TRG	U	AM05RCM	LR1	0	0.0124	PCI/G	0	U		19/12/2005	1:39	0.0171	PCI/G	0	PCI/G	1	4.6	1.01	G		PCI/G	0.00		435	PR							
9801-0280-002-01C	MSR#05-2782	1200995505	487526	OER-101-57	Curium-243/244	TRG	U	AM05RCM	LR1	0	0.0118	PCI/G	0	U		19/12/2005	1:39	0.0163	PCI/G	0	PCI/G	1	4.6	1.01	G		PCI/G	0.00		957	PR							
9801-0280-002-01C	MSR#05-2782	1200995506	487526	14596-10-2	Americium-241	TRG	U	AM05RCM	MS1	2.28	0.226	PCI/G	0			19/12/2005	1:39	0.0389	PCI/G	0.0115	PCI/G	1	4.6	1	G	2.	72	PCI/G	2.71	PR								
9801-0280-002-01C	MSR#05-2782	1200995506	487526	OER-100-93	Curium-242	TRG	U	AM05RCM	MS1	-0.00148	0.0029	PCI/G	0	U		19/12/2005	1:39	0.0307	PCI/G	0.00702	PCI/G	1	4.6	1	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995506	487526	OER-101-57	Curium-243/244	TRG	U	AM05RCM	MS1	2.87	0.254	PCI/G	0			19/12/2005	1:39	0.0292	PCI/G	0.00666	PCI/G	1	4.6	1	G	3.	30	PCI/G	3.31	PR								
	MSR#05-2782	1200995507	487526	14596-10-2	Americium-241	TRG	U	AM05RCM	BS1	2.74	0.245	PCI/G	0			19/12/2005	1:39	0.0338	PCI/G	0.00918	PCI/G	1	0	1.01	G	2.	70	PCI/G		PR								
	MSR#05-2782	1200995507	487526	OER-100-93	Curium-242	TRG	U	AM05RCM	BS1	0.00303	0.0121	PCI/G	0	U		19/12/2005	1:39	0.0346	PCI/G	0.0094	PCI/G	1	0	1.01	G		PCI/G			PR								
	MSR#05-2782	1200995507	487526	OER-101-57	Curium-243/244	TRG	U	AM05RCM	BS1	2.57	0.238	PCI/G	0			19/12/2005	1:39	0.0585	PCI/G	0.0215	PCI/G	1	0	1.01	G	3.	28	PCI/G		PR								
	MSR#05-2782	1200995516	487525	14133-76-7	Technetium-99	TRG	U	TC02RCM	LB1	0.135	0.328	PCI/G	0	U		20/12/2005	11:25	0.559	PCI/G	0.271	PCI/G	1	0	5.3	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995517	487525	14133-76-7	Technetium-99	TRG	U	TC02RCM	LR1	-0.053	0.356	PCI/G	0	U		20/12/2005	11:42	0.621	PCI/G	0.3	PCI/G	1	4.6	5.2	G		PCI/G	-0.0		62	PR							
9801-0280-002-01C	MSR#05-2782	1200995518	487525	14133-76-7	Technetium-99	TRG	U	TC02RCM	MS1	20.6	0.837	PCI/G	0			20/12/2005	11:58	0.605	PCI/G	0.293	PCI/G	1	4.6	5.3	G	22	.3	PCI/G	22.2	PR								
	MSR#05-2782	1200995519	487525	14133-76-7	Technetium-99	TRG	U	TC02RCM	BS1	20.8	0.814	PCI/G	0			21/12/2005	12:15	0.573	PCI/G	0.277	PCI/G	1	0	5.3	G	22	.3	PCI/G		PR								
	MSR#05-2782	1200995520	487529	14762-75-5	Carbon-14	TRG	U	LSC	LB1	0.266	0.285	PCI/G	0	U		15/12/2005	4:49	0.478	PCI/G	0.235	PCI/G	1	0	3.19	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995521	487529	14762-75-5	Carbon-14	TRG	U	LSC	LR1	-0.184	0.276	PCI/G	0	U		15/12/2005	5:51	0.478	PCI/G	0.235	PCI/G	1	4.6	3.19	G		PCI/G	-0.1		6	PR							
9801-0280-002-01C	MSR#05-2782	1200995522	487529	14762-75-5	Carbon-14	TRG	U	LSC	MS1	19.7	0.566	PCI/G	0			15/12/2005	6:53	0.487	PCI/G	0.239	PCI/G	1	4.6	3.15	G	20	.6	PCI/G	20.4	PR								
	MSR#05-2782	1200995523	487529	14762-75-5	Carbon-14	TRG	U	LSC	BS1	20.3	0.569	PCI/G	0			15/12/2005	7:56	0.483	PCI/G	0.237	PCI/G	1	0	3.19	G	20	.4	PCI/G		PR								
	MSR#05-2782	1200995524	487532	14119-32-5	Plutonium-241	TRG	U	PU11RCM	LB1	-0.834	1.3	PCI/G	0	U		20/12/2005	9:29	2.3	PCI/G	1.11	PCI/G	1	0	2.02	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995525	487532	14119-32-5	Plutonium-241	TRG	U	PU11RCM	LR1	-1.12	1.51	PCI/G	0	U		20/12/2005	10:01	2.68	PCI/G	1.3	PCI/G	1	4.6	2.01	G		PCI/G	-0.7		69	PR							
9801-0280-002-01C	MSR#05-2782	1200995526	487532	14119-32-5	Plutonium-241	TRG	U	PU11RCM	MS1	34.9	2.74	PCI/G	0			20/12/2005	10:33	3.02	PCI/G	1.46	PCI/G	1	4.6	2.01	G	36	.0	PCI/G	35.2	PR								
	MSR#05-2782	1200995527	487532	14119-32-5	Plutonium-241	TRG	U	PU11RCM	BS1	31.7	2.47	PCI/G	0			20/12/2005	11:05	2.71	PCI/G	1.32	PCI/G	1	0	2.02	G	35	.9	PCI/G		PR								
	MSR#05-2782	1200995528	487531	10028-17-8	Tritium	TRG	U	E906.0	LB1	0.554	0.869	PCI/G	0	U		14/12/2005	5:44	1.47	PCI/G	0.706	PCI/G	1	0	13	G		PCI/G			PR								
9801-0280-001S	MSR#05-2782	1200995529	487531	10028-17-8	Tritium	TRG	U	E906.0	LR1	1.62	0.885	PCI/G	0			14/12/2005	8:46	1.45	PCI/G	0.706	PCI/G	1	16	12.2	G		PCI/G	0.78		1	PR							
9801-0280-001S	MSR#05-2782	1200995530	487531	10028-17-8	Tritium	TRG	U	E906.0	MS1	12.2	2.9	PCI/G	0			14/12/2005	6:48	4.22	PCI/G	1.96	PCI/G	1	16	13	G	11	.6	PCI/G	12.4	PR								
	MSR#05-2782	1200995531	487531	10028-17-8	Tritium	TRG	U	E906.0	BS1	9.06	1.61	PCI/G	0			14/12/2005	7:04	2.1	PCI/G	0.991	PCI/G	1	0	13	G	11	.6	PCI/G		PR								
	MSR#05-2782	1200995540	487536	14681-59-5	Iron-55	TRG	U	LSC	LB1	-0.432	1.24	PCI/G	0	U		20/12/2005	6:54	1.88	PCI/G	0.926	PCI/G	1	0	3.34	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995541	487536	14681-59-5	Iron-55	TRG	U	LSC	LR1	-2.59	1.43	PCI/G	0	U		20/12/2005	8:28	2.26	PCI/G	1.11	PCI/G	1	4.6	3.34	G		PCI/G	-1.1		3	PR							
9801-0280-002-01C	MSR#05-2782	1200995542	487536	14681-59-5	Iron-55	TRG	U	LSC	MS1	60.5	5.78	PCI/G	0			20/12/2005	10:00	5.68	PCI/G	2.71	PCI/G	1	4.6	3.19	G	59	.7	PCI/G	58.6	PR								
	MSR#05-2782	1200995543	487536	14681-59-5	Iron-55	TRG	U	LSC	BS1	56.3	5.26	PCI/G	0			20/12/2005	10:17	5.21	PCI/G	2.5	PCI/G	1	0	3.34	G	56	.7	PCI/G		PR								
	MSR#05-2782	1200995544	487537	13781-37-8	Nickel-63	TRG	U	LSC	LB1	0.333	1.33	PCI/G	0	U		28/12/2005	12:51	2.27	PCI/G	1.11	PCI/G	1	0	0.892	G		PCI/G			PR								
9801-0280-002-01C	MSR#05-2782	1200995545	487537	13781-37-8	Nickel-63	TRG	U	LSC	LR1	0.626	1.73	PCI/G	0	U		28/12/2005	1:53	2.94	PCI/G	1.44	PCI/G	1	4.6	0.859	G		PCI/G	0.38		8	PR							
9801-0280-002-01C	MSR#05-2782	1200995546	487537	13781-37-8	Nickel-63	TRG	U	LSC	MS1	148	7.13	PCI/G	0			28/12/2005	2:56	4.89	PCI/G	2.33	PCI/G	1	4.6	0.871	G	17	1	PCI/G	171	PR								
	MSR#05-2782	1200995547	487537	13781-37-8	Nickel-63	TRG	U	LSC	BS1	153	6.95	PCI/G	0			28/12/2005	3:13	4.56	PCI/G	2.18	PCI/G	1	0	0.892	G	16	7	PCI/G		PR								
	MSR#05-2782	1200995907	487705	14331-83-0	Actinium-228	TRG	U	HASL300	LB1	0.0149	0.0565	PCI/G	0	U		14/12/2005	5:31	0.0882	PCI/G	0.0402	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	14596-10-2	Americium-241	TRG	U	HASL300	LB1	0.00509	0.00934	PCI/G	0	U		14/12/2005	5:31	0.0195	PCI/G	0.00913	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	LB1	0.0159	0.0823	PCI/G	0	U		14/12/2005	5:31	0.159	PCI/G	0.0718	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	LB1	0.0296	0.043	PCI/G	0	U		14/12/2005	5:31	0.0429	PCI/G	0.0198	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	13967-70-9	Cesium-134	TRG	U	HASL300	LB1	0.00707	0.0105	PCI/G	0	U		14/12/2005	5:31	0.0218	PCI/G	0.00978	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	10045-97-3	Cesium-137	TRG	U	HASL300	LB1	-0.0107	0.011	PCI/G	0	U		14/12/2005	5:31	0.0182	PCI/G	0.00815	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	LB1	0.00111	0.0118	PCI/G	0	U		14/12/2005	5:31	0.023	PCI/G	0.00998	PCI/G	1	0	190	G		PCI/G			PR								
	MSR#05-2782	1200995907	487705	14683-23-9	Europium-152	TRG	U	HASL300	LB1	-0.00391	0.0271	PCI/G	0	U		14/12/2005	5:31	0.0499	PCI/G	0.0232	PCI/G	1	0	190	G		PCI/G			PR								

	MSR#05-2782	1200995907	487705	15585-10-1	Europium-154	TRG	U	HASL300	LB1	-0.0189	0.042	PCI/G	0	U		14/12/2005	5:31	0.0617	PCI/G	0.0267	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	14391-16-3	Europium-155	TRG	U	HASL300	LB1	-0.00965	0.0179	PCI/G	0	U		14/12/2005	5:31	0.0322	PCI/G	0.015	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	15092-94-1	Lead-212	TRG	U	HASL300	LB1	0.0026	0.0213	PCI/G	0	U		14/12/2005	5:31	0.0308	PCI/G	0.0146	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	15067-28-4	Lead-214	TRG	U	HASL300	LB1	0.00222	0.0197	PCI/G	0	U		14/12/2005	5:31	0.037	PCI/G	0.0172	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	13966-31-9	Manganese-54	TRG	U	HASL300	LB1	0.0104	0.0106	PCI/G	0	U		14/12/2005	5:31	0.0221	PCI/G	0.0101	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	14681-63-1	Niobium-94	TRG	U	HASL300	LB1	0.00659	0.0101	PCI/G	0	U		14/12/2005	5:31	0.0203	PCI/G	0.0093	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	13966-00-2	Potassium-40	TRG	U	HASL300	LB1	0.0461	0.173	PCI/G	0	U		14/12/2005	5:31	0.218	PCI/G	0.0937	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	13982-63-3	Radium-226	TRG	U	HASL300	LB1	0.0296	0.043	PCI/G	0	U		14/12/2005	5:31	0.0534	PCI/G	0.0251	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	14391-65-2	Silver-108m	TRG	U	HASL300	LB1	-0.00333	0.00892	PCI/G	0	U		14/12/2005	5:31	0.017	PCI/G	0.00779	PCI/G	1	0	190	G		PCI/G		PR		
	MSR#05-2782	1200995907	487705	14913-50-9	Thallium-208	TRG	U	HASL300	LB1	0.00354	0.0131	PCI/G	0	U		14/12/2005	5:31	0.0226	PCI/G	0.0104	PCI/G	1	0	190	G		PCI/G		PR		
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14331-83-0	Actinium-228	TRG	U	HASL300	LR1	0.317	0.0957	PCI/G	0			15/12/2005	11:43	0.072	PCI/G	0.0332	PCI/G	1	3.5	178	G		PCI/G	0.41	2	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14596-10-2	Americium-241	TRG	U	HASL300	LR1	0.0469	0.0767	PCI/G	0	U		15/12/2005	11:43	0.137	PCI/G	0.0657	PCI/G	1	3.5	178	G		PCI/G	0.00	602	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	LR1	0.256	0.141	PCI/G	0			15/12/2005	11:43	0.197	PCI/G	0.0929	PCI/G	1	3.5	178	G		PCI/G	0.40	5	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	LR1	0.305	0.0576	PCI/G	0			15/12/2005	11:43	0.049	PCI/G	0.0232	PCI/G	1	3.5	178	G		PCI/G	0.47	5	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13967-70-9	Cesium-134	TRG	U	HASL300	LR1	0.0132	0.0132	PCI/G	0	U		15/12/2005	11:43	0.0265	PCI/G	0.0124	PCI/G	1	3.5	178	G		PCI/G	-0.0	0624	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	10045-97-3	Cesium-137	TRG	U	HASL300	LR1	0.04	0.0162	PCI/G	0			15/12/2005	11:43	0.0193	PCI/G	0.00894	PCI/G	1	3.5	178	G		PCI/G	0.04	22	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	LR1	0.00883	0.0127	PCI/G	0	U		15/12/2005	11:43	0.0248	PCI/G	0.0113	PCI/G	1	3.5	178	G		PCI/G	0.00		PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14683-23-9	Europium-152	TRG	U	HASL300	LR1	-0.0287	0.0303	PCI/G	0	U		15/12/2005	11:43	0.0546	PCI/G	0.0257	PCI/G	1	3.5	178	G		PCI/G	-0.0	485	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15585-10-1	Europium-154	TRG	U	HASL300	LR1	0.017	0.0431	PCI/G	0	U		15/12/2005	11:43	0.0796	PCI/G	0.0369	PCI/G	1	3.5	178	G		PCI/G	0.05	47	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14391-16-3	Europium-155	TRG	U	HASL300	LR1	0.0382	0.0412	PCI/G	0	U		15/12/2005	11:43	0.0752	PCI/G	0.0361	PCI/G	1	3.5	178	G		PCI/G	0.06	44	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15092-94-1	Lead-212	TRG	U	HASL300	LR1	0.324	0.0374	PCI/G	0			15/12/2005	11:43	0.0367	PCI/G	0.0176	PCI/G	1	3.5	178	G		PCI/G	0.35	2	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15067-28-4	Lead-214	TRG	U	HASL300	LR1	0.35	0.0555	PCI/G	0			15/12/2005	11:43	0.0435	PCI/G	0.0206	PCI/G	1	3.5	178	G		PCI/G	0.38	0	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13966-31-9	Manganese-54	TRG	U	HASL300	LR1	7.91E-05	0.0125	PCI/G	0	U		15/12/2005	11:43	0.0232	PCI/G	0.0108	PCI/G	1	3.5	178	G		PCI/G	0.01	32	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14681-63-1	Niobium-94	TRG	U	HASL300	LR1	0.001	0.0124	PCI/G	0	U		15/12/2005	11:43	0.0221	PCI/G	0.0104	PCI/G	1	3.5	178	G		PCI/G	-0.0	213	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13966-00-2	Potassium-40	TRG	U	HASL300	LR1	7.45	0.505	PCI/G	0			15/12/2005	11:43	0.178	PCI/G	0.0786	PCI/G	1	3.5	178	G		PCI/G	7.69	PR		
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13982-63-3	Radium-226	TRG	U	HASL300	LR1	0.305	0.0576	PCI/G	0			15/12/2005	11:43	0.049	PCI/G	0.0232	PCI/G	1	3.5	178	G		PCI/G	0.47	5	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14391-65-2	Silver-108m	TRG	U	HASL300	LR1	2.35E-05	0.0105	PCI/G	0	U		15/12/2005	11:43	0.0197	PCI/G	0.00927	PCI/G	1	3.5	178	G		PCI/G	-0.0	0276	PR	
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14913-50-9	Thallium-208	TRG	U	HASL300	LR1	0.102	0.0298	PCI/G	0			15/12/2005	11:43	0.0214	PCI/G	0.01	PCI/G	1	3.5	178	G		PCI/G	0.11	8	PR	
	MSR#05-2782	1200995909	487705	14331-83-0	Actinium-228	TRG	U	HASL300	BS1	-0.49	0.613	PCI/G	0	U		14/12/2005	8:51	0.982	PCI/G	0.466	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14596-10-2	Americium-241	TRG	U	HASL300	BS1	25.3	1.4	PCI/G	0			14/12/2005	8:51	1.06	PCI/G	0.517	PCI/G	1	0	100	G	24	.4	PCI/G	PR		
	MSR#05-2782	1200995909	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	BS1	-0.308	1.02	PCI/G	0	U		14/12/2005	8:51	1.72	PCI/G	0.813	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	BS1	0.104	0.239	PCI/G	0	U		14/12/2005	8:51	0.428	PCI/G	0.204	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	13967-70-9	Cesium-134	TRG	U	HASL300	BS1	-0.00252	0.151	PCI/G	0	U		14/12/2005	8:51	0.259	PCI/G	0.122	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	10045-97-3	Cesium-137	TRG	U	HASL300	BS1	10	0.484	PCI/G	0			14/12/2005	8:51	0.247	PCI/G	0.118	PCI/G	1	0	100	G	9.	34	PCI/G	PR		
	MSR#05-2782	1200995909	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	BS1	14.9	0.673	PCI/G	0			14/12/2005	8:51	0.192	PCI/G	0.0863	PCI/G	1	0	100	G	13	.8	PCI/G	PR		
	MSR#05-2782	1200995909	487705	14683-23-9	Europium-152	TRG	U	HASL300	BS1	0.249	0.292	PCI/G	0	U		14/12/2005	8:51	0.493	PCI/G	0.235	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	15585-10-1	Europium-154	TRG	U	HASL300	BS1	-0.0813	0.275	PCI/G	0	U		14/12/2005	8:51	0.489	PCI/G	0.218	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14391-16-3	Europium-155	TRG	U	HASL300	BS1	0.263	0.309	PCI/G	0	U		14/12/2005	8:51	0.56	PCI/G	0.272	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	15092-94-1	Lead-212	TRG	U	HASL300	BS1	0.023	0.161	PCI/G	0	U		14/12/2005	8:51	0.276	PCI/G	0.133	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	15067-28-4	Lead-214	TRG	U	HASL300	BS1	0.0716	0.233	PCI/G	0	U		14/12/2005	8:51	0.395	PCI/G	0.189	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	13966-31-9	Manganese-54	TRG	U	HASL300	BS1	0.00165	0.141	PCI/G	0	U		14/12/2005	8:51	0.241	PCI/G	0.114	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14681-63-1	Niobium-94	TRG	U	HASL300	BS1	0.0519	0.118	PCI/G	0	U		14/12/2005	8:51	0.21	PCI/G	0.0992	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	13966-00-2	Potassium-40	TRG	U	HASL300	BS1	0.46	1.3	PCI/G	0	U		14/12/2005	8:51	2.21	PCI/G	1.01	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	13982-63-3	Radium-226	TRG	U	HASL300	BS1	0.104	0.239	PCI/G	0	U		14/12/2005	8:51	0.428	PCI/G	0.204	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14391-65-2	Silver-108m	TRG	U	HASL300	BS1	-0.0919	0.121	PCI/G	0	U		14/12/2005	8:51	0.19	PCI/G	0.0906	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200995909	487705	14913-50-9	Thallium-208	TRG	U	HASL300	BS1	0.038	0.123	PCI/G	0	U		14/12/2005	8:51	0.219	PCI/G	0.104	PCI/G	1	0	100	G		PCI/G		PR		
	MSR#05-2782	1200998558	488820	10098-97-2	Strontium-90	TRG	U	E905M	LB1	-0.0407	0.00465	PCI/G	0	U		18/12/2005	9:49	0.0101	PCI/G	0.00496	PCI/G	1	0	21.8	G		PCI/G		PR		
9801-0280-004-02C	MSR#05-2782	1200998559	488820	10098-97-2	Strontium-90	TRG	U	E905M	LR2	-0.00333	0.0042	PCI/G	0	U		18/12/2005	9:49	0.00765	PCI/G	0.00367	PCI/G	1	3.3	19	G		PCI/G	-0.0	12	PR	
9801-0280-004-02C	MSR#05-2782	1200998560	488820	10098-97-2	Strontium-90	TRG	U	E905M	MS2	1.23	0.106	PCI/G	0			18/12/2005	9:05	0.0493	PCI/G	0.0216	PCI/G	1	3.3	9.47	G	1.	64	PCI/G	1.63	PR	
	MSR#05-2782	1200998561	488820	10098-97-2	Strontium-90	TRG	U	E905M	BS1	0.667	0.0468	PCI/G	0			18/12/2005	9:05	0.0208	PCI/G	0.00927	PCI/G	1	0	21.8	G	0.	713	PCI/G	PR		
	MSR#05-2782	1200999946	489487	13981-16-3	Plutonium-238	TRG	U	PU11RCM	LB1	-0.00758	0.0226	PCI/G	0	U		22/12/2005	12:34	0.0711	PCI/G	0.0278	PCI/G	1	0	1.08	G		PCI/G		PR		
	MSR#05-2782	1200999946	489487	OER-100-70	Plutonium-239/240	TRG	U	PU11RCM	LB1	0.00896	0.0206	PCI/G	0	U		22/12/2005	12:34	0.0476	PCI/G	0.016	PCI/G	1	0	1.08	G		PCI/G		PR		
9801-0280-002-01C	MSR#05-2782	1200999947	489487	13981-16-3	Plutonium-238	TRG	U	PU11RCM	LR2	0.00591	0.0308	PCI/G	0	U		22/12/2005	12:34	0.0778	PCI/G	0.0302	PCI/G	1	4.6	1.03	G		PCI/G	-0.0	0328	PR	
9801-0280-002-01C	MSR#05-2782	1200999947	489487	OER-100-70	Plutonium-239/240	TRG	U	PU11RCM	LR2	0.0036	0.0193	PCI/G	0	U		22/12/2005	12:34	0.0533	PCI/G	0.0179	PCI/G	1	4.6	1.03	G		PCI/G	0.00	711	PR	
9801-0280-002-01C	MSR#05-2782	1200999948	489487	13981-16-3	Plutonium-238	TRG	U	PU11RCM	MS2	-0.00779	0.00683	PCI/G	0	U		22/12/2005	12:34	0.0507	PCI/G	0.0165	PCI/G	1	4.6	1.05	G		PCI/G		PR		
9801-0280-002-01C	MSR#05-2782	1200999948	489487	OER-100-70	Plutonium-239/240	TRG	U	PU11RCM	MS2	2.4	0.245	PCI/G	0			22/12/2005	12:34	0.0432	PCI/G	0.0128	PCI/G	1	4.6	1.05	G	2.	40	PCI/G	2.41	PR	
	MSR#05-2782	1200999949	489487	13981-16-3	Plutonium-238	TRG	U	PU11RCM	BS1	-0.00511	0.0132	PCI/G	0	U		22/12/2005	12:34	0.0509	PCI/G	0.0179	PCI/G	1	0	1.08	G		PCI/G		PR		
	MSR#05-2782	1200999949	489487	OER-100-70	Plutonium-239/240	TRG	U	PU11RCM	BS1	2.4	0.227	PCI/G	0			22/12/2005	12:34	0.0509	PCI/G	0.0179	PCI/G	1	0	1.08	G	2.	33	PCI/G	PR		

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

December 15, 2005

Mr. Pete Hollenbeck
Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: Soils PO# 0023372
Work Order: 151784
SDG: MSR# 05-2782

Dear Mr. Hollenbeck:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 13, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Purchase Order: 002332
Chain of Custody: 2005-00522
Enclosures

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

CONNECTICUT YANKEE
RE: Sump Ladder Rung
PO# 002332
Work Order: 151784
SDG: MSR #05-2782

151784001 Sump Ladder Rung

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General Narrative

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Sump Ladder Rung
PO# 002332
Work Order: 151784
SDG: MSR #05-2782

December 15, 2005

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The sample(s) for the CY Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on December 13, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

Sample ID	Client Sample ID
151784001	Sump Ladder Rung

Items of Note:

There are no items of note.

Case Narrative:
Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One iron ladder rung sample was analyzed for CHGAM, Sr-90 and H-3.

Internal Chain of Custody:
Custody was maintained for all the samples.

Data Package:
The enclosed data package contains the following sections: Case Narrative, Chain of Custody and Supporting Documentation and all analytical fractions.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

Chain of Custody and Supporting Documentation

Chain of Custody Form

No. 2005-00522

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 15 D. ☐ 7 D.
Other: 3 days

Lab Use Only
Comments:
151784 % - Iron
151782 % - SE/CT

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
9801-0280-001S	12/6/05	1512	SE	G	500ML /P	X	X	X					
Sump ladder rung	12/6/05	1525	Iron	G	BP	X	X	X					
9801-0280-002-01C	12/7/05	1150	CT	CR	BP				X				
9801-0280-002-02C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-002-03C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-003-01C	12/7/05	~~1150~~ 1510	CT CR 12/14/05	CR	BP	X	X	X					
9801-0280-003-02C	12/7/05	~~1150~~ 1510	CT CR 12/14/05	CR	BP	X	X	X					
9801-0280-003-03C	12/7/05	~~1150~~ 1510	CT CR 12/14/05	CR	BP	X	X	X					
9801-0280-004-01C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CR 12/14/05	CR	BP				X				
9801-0280-004-02C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CR 12/14/05	CR	BP	X	X	X					
9801-0280-004-03C 12/8/05	~~12/7/05~~	~~1150~~ 0940	CT CR 12/14/05	CR	BP	X	X	X					

NOTES: PO #: 002332 MSR #: 05-2782 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Per Pete Hollenbeck, for SE sample. 21 day TAT acceptable for CHALL.
Sr90 MDA – 0.025 pCi/g
H3 MDA – 1-2 pCi/g
CA for 12/13/05

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7907 4206 2295
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y N

Custody Seal Intact? Y N

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	12/12/05 1340	[signature]	12/13/05 9:40
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2005-00522

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 15 D. ☐ 7 D.
Other: 3 days

Lab Use Only

Comments:

Corrected COC for discrepancys found by GEL.
Original COC was received by GEL on 12/13/05

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
9801-0280-001S	12/6/05	1512	SE	G	500ML/P	X	X	X					
Sump ladder rung	12/6/05	1525	Iron	G	BP	X	X	X					
9801-0280-002-01C	12/7/05	1150	CT	CR	BP				X				
9801-0280-002-02C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-002-03C	12/7/05	1150	CT	CR	BP	X	X	X					
9801-0280-003-01C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-003-02C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-003-03C	12/7/05	1510	CT	CR	BP	X	X	X					
9801-0280-004-01C	12/8/05	0940	CT	CR	BP				X				
9801-0280-004-02C	12/8/05	0940	CT	CR	BP	X	X	X					
9801-0280-004-03C	12/8/05	0940	CT	CR	BP	X	X	X					

NOTES: PO #: 002332 MSR #: 05-2782 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other

Bill of Lading #
7907 4206 2295

Internal Container Temp.: ____ Deg. C

Custody Sealed?
Y N

Custody Seal Intact?
Y N

1) Relinquished By	Date/Time	2) Received By	Date/Time
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 12/13/05 . 9:40

SDG#: MSR#05-2782

Work Order Number: 151782, 151784

Shipping Container ID: 7907 4206 2295 Chain of Custody # 2005-00522

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 10° no Blue ice or ice
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] None ✓
6. Number of samples in shipping container: 1:1
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

_____tape _____hazard labels

_____custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition _____leaking

_____broken _____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [X] No [ ]
11. Description of anomalies (include sample numbers): See GEL continuation form

Sample Custodian/Laboratory: [signature] Date: 12/13/05

Telephoned to:_____ On_____ By_____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Yankee	SDG/ARCOC/Work Order: 151782, 151784
Date Received: 12-13-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				
8	Samples received within holding time?				Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?				Sample ID's affected:
11	Number of containers received match number indicated on COC?				Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?				
14	Air Bill ,Tracking #'s, & Additional Comments				

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?		✓		Maximum Counts Observed*: 90 CPM
B	PCB Regulated?	✓			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: _____ Initials _____ Date: 12/13/05

8

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

9801-0280-003-01C-wrong time. 15:10
9801-280-003-02C ↓ 15:10
9801-280-003--03C ↓ 15:10
9801 280 - 004 1C wrong date & time 12-8-05 940
9801 280 - 004 2C ↓ ↓
9801 280 - 004 3C ↓ ↓

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-2782

Method/Analysis Information

Product:	**Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	487705
Prep Batch Number:	487538

Sample ID	Client ID
151784001	Sump ladder rung
1200995907	Method Blank (MB)
1200995908	151782008(9801-0280-004-01C) Sample Duplicate (DUP)
1200995909	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151782008 (9801-0280-004-01C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200995908 (9801-0280-004-01C) was recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 277552 was generated due to RDL less than MDA and Container scanning event for custody missed. 1. RDL less than MDA: 150984 002 151784 001 The required detection limits were not met due to low aliquot. 2. Container scanning event for custody missed: 151782 010 The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. 1. Reporting results. 2. Reporting results. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Additional Comments
The relative percent difference for sample 1200995908 (9801-0280-004-01C) for isotopes Bi-214 and Ra-226 did not meet the requirements at 43.4%. However, when a relative error ratio is calculated, precision is shown at 2.66. The relative percent difference for Bi-212 did not meet the requirements at 45.3%. However, when a relative error ratio is calculated, precision is shown at 1.02.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak uncertainty.	Potassium-40	151784001

Method/Analysis Information

Product:	**GFPC, Sr90, solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	488994
Prep Batch Number:	487541
Dry Soil Prep GL-RAD-A-021 Batch Number:	487538

Sample ID	Client ID
151784001	Sump ladder rung
1200998937	Method Blank (MB)
1200998938	151784001(Sump ladder rung) Sample Duplicate (DUP)
1200998939	151784001(Sump ladder rung) Matrix Spike (MS)
1200998940	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151784001 (Sump ladder rung).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were recounted due to low/high recovery.
Samples were reprepped due to high blank activity.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
The blank, 1200998937 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	487540

Sample ID	Client ID

151784001	Sump ladder rung
1200995556	Method Blank (MB)
1200995557	151784001(Sump ladder rung) Sample Duplicate (DUP)
1200995558	151784001(Sump ladder rung) Matrix Spike (MS)
1200995559	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 151784001 (Sump ladder rung).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: 12/21/05

General Engineering Laboratories
Form GEL-NCR
Rev. 06/05

NCR Report No.: 277552
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-DEC-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	EML HASL 300, 4.5.2.3	Solid	YANK
Batch ID:	**Sample Numbers:**		
487705	See Below		

Potentially affected work order(s)(SDG): 150984(MSR#05-2683),151782(MSR#05-2782),151784(MSR#05-2782)

Application Issues:

RDL less than MDA

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. RDL less than MDA: 150984 002 151784 001 The required detection limits were not met due to low aliquot.	1. Reporting results.
2. Container scanning event for custody missed: 151782 010 The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times.	2. Reporting results. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Originator's Name:
Jodi Cummings 16-DEC-05

Data Validator/Group Leader:
Melanie Aycock 19-DEC-05

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-2782 GEL Work Order: 151784

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
D Sample has been diluted and reanalyzed after initially exceeding inst. calibration range
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
P The response between the confirmation and the primary columns is >40% Different.
R Sample results are rejected.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
ND The analyte concentration is not detected above the reporting limit.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 21, 2005

Client Sample ID:	Sump ladder rung	Project:	YANK01204
Sample ID:	151784001	Client ID:	YANK001
Matrix:	Iron	Vol. Recv.:	
Collect Date:	06-DEC-05		
Receive Date:	13-DEC-05		
Collector:	Client		
Moisture:	0%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228	U	3.64	+/-12.3	5.10	+/-12.1	10.6	pCi/g		MJH1	12/14/05	1206	487705	1
Americium-241	U	5.52	+/-13.9	6.55	+/-13.6	13.4	pCi/g						
Bismuth-212	U	13.5	+/-10.3	8.59	+/-10.1	18.0	pCi/g						
Bismuth-214		18.8	+/-6.91	1.99	+/-6.79	4.16	pCi/g						
Cesium-134	U	0.929	+/-1.44	1.17	+/-1.41	2.46	pCi/g						
Cesium-137	U	-0.0386	+/-1.39	1.09	+/-1.36	2.27	pCi/g						
Cobalt-60	U	1.53	+/-1.34	1.15	+/-1.31	2.47	pCi/g						
Europium-152	U	-0.0192	+/-4.10	3.04	+/-4.02	6.27	pCi/g						
Europium-154	U	-0.0726	+/-4.01	3.13	+/-3.93	6.69	pCi/g						
Europium-155	U	-0.706	+/-4.94	3.58	+/-4.84	7.30	pCi/g						
Lead-212		6.40	+/-4.78	1.78	+/-4.68	3.64	pCi/g						
Lead-214		20.5	+/-7.39	2.15	+/-7.26	4.44	pCi/g						
Manganese-54	U	-0.116	+/-1.29	1.01	+/-1.27	2.12	pCi/g						
Niobium-94	U	1.60	+/-1.43	1.05	+/-1.40	2.20	pCi/g						
Potassium-40	UUI	0.00	+/-34.4	11.5	+/-33.7	24.6	pCi/g						
Radium-226		18.8	+/-6.91	1.99	+/-6.79	4.16	pCi/g						
Silver-108m	U	0.505	+/-1.37	1.04	+/-1.35	2.15	pCi/g						
Thallium-208		3.05	+/-1.52	1.29	+/-1.50	2.66	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		0.0196	+/-0.0091	0.00672	+/-0.00912	0.0141	pCi/g		EXW1	12/20/05	2011	488994	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	0.575	+/-0.605	0.483	+/-0.606	1.01	pCi/g		MXP1	12/14/05	2321	487540	4
Solid Preparation													
Laboratory Composite - leach													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
GL-RAD-A-026	Laboratory sample composite				487534

The following Analytical Methods were performed

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils PO# 002332

Report Date: December 21, 2005

Client Sample ID: Sump ladder rung
Sample ID: 151784001

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 906.0 Modified
5	EPA 906.0 Modified
6	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	73	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Results below the MDC or low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value.
U Target analyte was analyzed for but not detected above the MDL or LOD.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier--please see case narrative, data summary package or contact your project manager for details.
d The 2:1 depletion requirement was not met for this sample
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 21, 2005
Page 1 of 5

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 151784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 487705										
QC1200995908 151782008 DUP										
Actinium-228		0.412		0.317	pCi/g	26		(0% - 100%)	MJH1	12/15/05 11:43
	Uncert:	+/-0.181		+/-0.0957						
	TPU:	+/-0.178		+/-0.0938						
Americium-241	U	0.00602	U	0.0469	pCi/g	155		(0% - 100%)		
	Uncert:	+/-0.0357		+/-0.0767						
	TPU:	+/-0.035		+/-0.0752						
Bismuth-212		0.405		0.256	pCi/g	45		(0% - 100%)		
	Uncert:	+/-0.258		+/-0.141						
	TPU:	+/-0.253		+/-0.138						
Bismuth-214		0.475		0.305	pCi/g	43		(0% - 100%)		
	Uncert:	+/-0.113		+/-0.0576						
	TPU:	+/-0.111		+/-0.0564						
Cesium-134	U	-0.00624	U	0.0132	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.030		+/-0.0132						
	TPU:	+/-0.0294		+/-0.0129						
Cesium-137	U	0.0422		0.040	pCi/g	5		(0% - 100%)		
	Uncert:	+/-0.0363		+/-0.0162						
	TPU:	+/-0.0356		+/-0.0159						
Cobalt-60	UUI	0.00	U	0.00883	pCi/g	138		(0% - 100%)		
	Uncert:	+/-0.0489		+/-0.0127						
	TPU:	+/-0.048		+/-0.0125						
Europium-152	U	-0.0485	U	-0.0287	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0684		+/-0.0303						
	TPU:	+/-0.0671		+/-0.0297						
Europium-154	U	0.0547	U	0.017	pCi/g	105		(0% - 100%)		
	Uncert:	+/-0.0796		+/-0.0431						
	TPU:	+/-0.078		+/-0.0423						
Europium-155	U	0.0644	U	0.0382	pCi/g	51		(0% - 100%)		
	Uncert:	+/-0.0615		+/-0.0412						
	TPU:	+/-0.0603		+/-0.0404						
Lead-212		0.352		0.324	pCi/g	8		(0% - 100%)		
	Uncert:	+/-0.0655		+/-0.0374						
	TPU:	+/-0.0642		+/-0.0367						
Lead-214		0.380		0.350	pCi/g	8		(0% - 100%)		
	Uncert:	+/-0.095		+/-0.0555						
	TPU:	+/-0.0931		+/-0.0543						
Manganese-54	U	0.0132	U	7.910E-05	pCi/g	198		(0% - 100%)		
	Uncert:	+/-0.0292		+/-0.0125						
	TPU:	+/-0.0286		+/-0.0122						
Niobium-94	U	-0.0213	U	0.001	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0294		+/-0.0124						
	TPU:	+/-0.0288		+/-0.0121						

QC Summary

Workorder: 151784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 487705										
Potassium-40		7.69		7.45	pCi/g	3		(0% - 20%)		
	Uncert:	+/-0.957		+/-0.505						
	TPU:	+/-0.938		+/-0.495						
Radium-226		0.475		0.305	pCi/g	43		(0% - 100%)		
	Uncert:	+/-0.113		+/-0.0576						
	TPU:	+/-0.111		+/-0.0564						
Silver-108m	U	-0.00276	U	2.350E-05	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0237		+/-0.0105						
	TPU:	+/-0.0232		+/-0.0103						
Thallium-208		0.118		0.102	pCi/g	15		(0% - 100%)		
	Uncert:	+/-0.0466		+/-0.0298						
	TPU:	+/-0.0457		+/-0.0292						
QC1200995909 LCS										
Actinium-228			U	-0.49	pCi/g					12/14/05 20:51
	Uncert:			+/-0.613						
	TPU:			+/-0.601						
Americium-241	24.4			25.3	pCi/g		104	(75%-125%)		
	Uncert:			+/-1.40						
	TPU:			+/-1.37						
Bismuth-212			U	-0.308	pCi/g					
	Uncert:			+/-1.02						
	TPU:			+/-0.997						
Bismuth-214			U	0.104	pCi/g					
	Uncert:			+/-0.239						
	TPU:			+/-0.235						
Cesium-134			U	-0.00252	pCi/g					
	Uncert:			+/-0.151						
	TPU:			+/-0.148						
Cesium-137	9.34			10.0	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.484						
	TPU:			+/-0.474						
Cobalt-60	13.8			14.9	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.673						
	TPU:			+/-0.660						
Europium-152			U	0.249	pCi/g					
	Uncert:			+/-0.292						
	TPU:			+/-0.286						
Europium-154			U	-0.0813	pCi/g					
	Uncert:			+/-0.275						
	TPU:			+/-0.269						
Europium-155			U	0.263	pCi/g					
	Uncert:			+/-0.309						
	TPU:			+/-0.303						
Lead-212			U	0.023	pCi/g					
	Uncert:			+/-0.161						
	TPU:			+/-0.158						
Lead-214			U	0.0716	pCi/g					
	Uncert:			+/-0.233						

QC Summary

Workorder: 151784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 487705											
	TPU:			+/-0.228							
Manganese-54			U	0.00165	pCi/g						
	Uncert:			+/-0.141							
	TPU:			+/-0.138							
Niobium-94			U	0.0519	pCi/g						
	Uncert:			+/-0.118							
	TPU:			+/-0.115							
Potassium-40			U	0.460	pCi/g						
	Uncert:			+/-1.30							
	TPU:			+/-1.28							
Radium-226			U	0.104	pCi/g			(75%-125%)			
	Uncert:			+/-0.239							
	TPU:			+/-0.235							
Silver-108m			U	-0.0919	pCi/g						
	Uncert:			+/-0.121							
	TPU:			+/-0.119							
Thallium-208			U	0.038	pCi/g						
	Uncert:			+/-0.123							
	TPU:			+/-0.120							
QC1200995907 MB											
Actinium-228			U	0.0149	pCi/g					12/14/05	17:31
	Uncert:			+/-0.0565							
	TPU:			+/-0.0553							
Americium-241			U	0.00509	pCi/g						
	Uncert:			+/-0.00934							
	TPU:			+/-0.00915							
Bismuth-212			U	0.0159	pCi/g						
	Uncert:			+/-0.0823							
	TPU:			+/-0.0807							
Bismuth-214			U	0.0296	pCi/g						
	Uncert:			+/-0.043							
	TPU:			+/-0.0422							
Cesium-134			U	0.00707	pCi/g						
	Uncert:			+/-0.0105							
	TPU:			+/-0.0103							
Cesium-137			U	-0.0107	pCi/g						
	Uncert:			+/-0.011							
	TPU:			+/-0.0107							
Cobalt-60			U	0.00111	pCi/g						
	Uncert:			+/-0.0118							
	TPU:			+/-0.0116							
Europium-152			U	-0.00391	pCi/g						
	Uncert:			+/-0.0271							
	TPU:			+/-0.0266							
Europium-154			U	-0.0189	pCi/g						
	Uncert:			+/-0.042							
	TPU:			+/-0.0412							
Europium-155			U	-0.00965	pCi/g						

QC Summary

Workorder: 151784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 487705										
	Uncert:			+/-0.0179						
	TPU:			+/-0.0175						
Lead-212			U	0.0026	pCi/g					
	Uncert:			+/-0.0213						
	TPU:			+/-0.0209						
Lead-214			U	0.00222	pCi/g					
	Uncert:			+/-0.0197						
	TPU:			+/-0.0193						
Manganese-54			U	0.0104	pCi/g					
	Uncert:			+/-0.0106						
	TPU:			+/-0.0104						
Niobium-94			U	0.00659	pCi/g					
	Uncert:			+/-0.0101						
	TPU:			+/-0.00989						
Potassium-40			U	0.0461	pCi/g					
	Uncert:			+/-0.173						
	TPU:			+/-0.170						
Radium-226			U	0.0296	pCi/g					
	Uncert:			+/-0.043						
	TPU:			+/-0.0422						
Silver-108m			U	-0.00333	pCi/g					
	Uncert:			+/-0.00892						
	TPU:			+/-0.00874						
Thallium-208			U	0.00354	pCi/g					
	Uncert:			+/-0.0131						
	TPU:			+/-0.0128						
Rad Gas Flow										
Batch 488994										
QC1200998938 151784001 DUP										
Strontium-90		0.0196		0.0144	pCi/g	31		(0% - 100%)	EXW1	12/20/05 20:11
	Uncert:	+/-0.0091		+/-0.0078						
	TPU:	+/-0.00912		+/-0.00781						
QC1200998940 LCS										
Strontium-90	1.47			1.52	pCi/g		104	(75%-125%)		12/20/05 20:11
	Uncert:			+/-0.110						
	TPU:			+/-0.120						
QC1200998937 MB										
Strontium-90			U	0.00716	pCi/g					12/20/05 20:11
	Uncert:			+/-0.00954						
	TPU:			+/-0.00954						
QC1200998939 151784001 MS										
Strontium-90	2.93	0.0196		3.18	pCi/g		108	(75%-125%)		12/20/05 20:11
	Uncert:	+/-0.0091		+/-0.225						
	TPU:	+/-0.00912		+/-0.244						
Rad Liquid Scintillation										
Batch 487540										
QC1200995557 151784001 DUP										
Tritium	U	0.575	U	0.942	pCi/g	48		(0% - 100%)	MXP1	12/15/05 00:25

QC Summary

Workorder: 151784

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 487540										
	Uncert:	+/-0.605		+/-0.714						
	TPU:	+/-0.606		+/-0.714						
QC1200995559 LCS										
Tritium	12.5			11.9	pCi/g		95	(75%-125%)		12/15/05 01:29
	Uncert:			+/-1.37						
	TPU:			+/-1.39						
QC1200995556 MB										
Tritium			U	0.864	pCi/g					12/14/05 23:53
	Uncert:			+/-0.932						
	TPU:			+/-0.932						
QC1200995558 151784001 MS										
Tritium	12.5 U	0.575		13.2	pCi/g		106	(75%-125%)		12/15/05 00:57
	Uncert:	+/-0.605		+/-1.18						
	TPU:	+/-0.606		+/-1.20						

Notes:
The Qualifiers in this report are defined as follows:

- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- d The 2:1 depletion requirement was not met for this sample
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Sump ladder rung	MSR#05-2782	151784001	487705	14331-83-0	Actinium-228	TRG 8	UHASL300	HASL300	REG	3.64	12.3	PCI/G	0	U	14/12/2005	12:06	10.6	PCI/G	5.1	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14596-10-2	Americium-241	TRG 8	UHASL300	HASL300	REG	5.52	13.9	PCI/G	0	U	14/12/2005	12:06	13.4	PCI/G	6.55	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14913-49-6	Bismuth-212	TRG 8	UHASL300	HASL300	REG	13.5	10.3	PCI/G	0	U	14/12/2005	12:06	18	PCI/G	8.59	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14733-03-0	Bismuth-214	TRG 8	UHASL300	HASL300	REG	18.8	6.91	PCI/G	0		14/12/2005	12:06	4.16	PCI/G	1.99	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	13967-70-9	Cesium-134	TRG 8	UHASL300	HASL300	REG	0.929	1.44	PCI/G	0	U	14/12/2005	12:06	2.46	PCI/G	1.17	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	10045-97-3	Cesium-137	TRG 8	UHASL300	HASL300	REG	-0.0386	1.39	PCI/G	0	U	14/12/2005	12:06	2.27	PCI/G	1.09	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	10198-40-0	Cobalt-60	TRG 8	UHASL300	HASL300	REG	1.53	1.34	PCI/G	0	U	14/12/2005	12:06	2.47	PCI/G	1.15	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14683-23-9	Europium-152	TRG 8	UHASL300	HASL300	REG	-0.0192	4.1	PCI/G	0	U	14/12/2005	12:06	6.27	PCI/G	3.04	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	15585-10-1	Europium-154	TRG 8	UHASL300	HASL300	REG	-0.0726	4.01	PCI/G	0	U	14/12/2005	12:06	6.69	PCI/G	3.13	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14391-16-3	Europium-155	TRG 8	UHASL300	HASL300	REG	-0.706	4.94	PCI/G	0	U	14/12/2005	12:06	7.3	PCI/G	3.58	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	15092-94-1	Lead-212	TRG 8	UHASL300	HASL300	REG	6.4	4.78	PCI/G	0		14/12/2005	12:06	3.64	PCI/G	1.78	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	15067-28-4	Lead-214	TRG 8	UHASL300	HASL300	REG	20.5	7.39	PCI/G	0		14/12/2005	12:06	4.44	PCI/G	2.15	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	13966-31-9	Manganese-54	TRG 8	UHASL300	HASL300	REG	-0.116	1.29	PCI/G	0	U	14/12/2005	12:06	2.12	PCI/G	1.01	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14681-63-1	Niobium-94	TRG 8	UHASL300	HASL300	REG	1.6	1.43	PCI/G	0	U	14/12/2005	12:06	2.2	PCI/G	1.05	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	13966-00-2	Potassium-40	TRG 8	UHASL300	HASL300	REG	0	34.4	PCI/G	0	UUI	14/12/2005	12:06	24.6	PCI/G	11.5	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	13982-63-3	Radium-226	TRG 8	UHASL300	HASL300	REG	18.8	6.91	PCI/G	0		14/12/2005	12:06	4.16	PCI/G	1.99	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14391-65-2	Silver-108m	TRG 8	UHASL300	HASL300	REG	0.505	1.37	PCI/G	0	U	14/12/2005	12:06	2.15	PCI/G	1.04	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	488994	10098-97-2	Strontium-90	TRG 45	UE905M	E905M	REG	0.0196	0.0091	PCI/G	0		20/12/2005	8:11	0.0141	PCI/G	0.00672	PCI/G	1	0	10.6	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487705	14913-50-9	Thallium-208	TRG 8	UHASL300	HASL300	REG	3.05	1.52	PCI/G	0		14/12/2005	12:06	2.66	PCI/G	1.29	PCI/G	1	0	0.75	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	151784001	487540	10028-17-8	Tritium	TRG 20	UE906.0	E906.0	REG	0.575	0.605	PCI/G	0	U	14/12/2005	11:21	1.01	PCI/G	0.483	PCI/G	1	0	12	G		PCI/G		PR
	MSR#05-2782	1200995556	487540	10028-17-8	Tritium	TRG	U	E906.0	LB1	0.864	0.932	PCI/G	0	U	14/12/2005	11:53	1.56	PCI/G	0.744	PCI/G	1	0	12	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	1200995557	487540	10028-17-8	Tritium	TRG	U	E906.0	LR1	0.942	0.714	PCI/G	0	U	15/12/2005	12:25	1.17	PCI/G	0.559	PCI/G	1	0	12	G		PCI/G	0.575	PR
Sump ladder rung	MSR#05-2782	1200995558	487540	10028-17-8	Tritium	TRG	U	E906.0	MS1	13.2	1.18	PCI/G	0		15/12/2005	12:57	1.17	PCI/G	0.56	PCI/G	1	0	12	G	12.5	PCI/G	13.1	PR
	MSR#05-2782	1200995559	487540	10028-17-8	Tritium	TRG	U	E906.0	BS1	11.9	1.37	PCI/G	0		15/12/2005	1:29	1.54	PCI/G	0.736	PCI/G	1	0	12	G	12.5	PCI/G		PR
	MSR#05-2782	1200995907	487705	14331-83-0	Actinium-228	TRG	U	HASL300	LB1	0.0149	0.0565	PCI/G	0	U	14/12/2005	5:31	0.0882	PCI/G	0.0402	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14596-10-2	Americium-241	TRG	U	HASL300	LB1	0.00509	0.00934	PCI/G	0	U	14/12/2005	5:31	0.0195	PCI/G	0.00913	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	LB1	0.0159	0.0823	PCI/G	0	U	14/12/2005	5:31	0.159	PCI/G	0.0718	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	LB1	0.0296	0.043	PCI/G	0	U	14/12/2005	5:31	0.0429	PCI/G	0.0198	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	13967-70-9	Cesium-134	TRG	U	HASL300	LB1	0.00707	0.0105	PCI/G	0	U	14/12/2005	5:31	0.0218	PCI/G	0.00978	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	10045-97-3	Cesium-137	TRG	U	HASL300	LB1	-0.0107	0.011	PCI/G	0	U	14/12/2005	5:31	0.0182	PCI/G	0.00815	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	LB1	0.00111	0.0118	PCI/G	0	U	14/12/2005	5:31	0.023	PCI/G	0.00998	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14683-23-9	Europium-152	TRG	U	HASL300	LB1	-0.00391	0.0271	PCI/G	0	U	14/12/2005	5:31	0.0499	PCI/G	0.0232	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	15585-10-1	Europium-154	TRG	U	HASL300	LB1	-0.0189	0.042	PCI/G	0	U	14/12/2005	5:31	0.0617	PCI/G	0.0267	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14391-16-3	Europium-155	TRG	U	HASL300	LB1	-0.00965	0.0179	PCI/G	0	U	14/12/2005	5:31	0.0322	PCI/G	0.015	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	15092-94-1	Lead-212	TRG	U	HASL300	LB1	0.0026	0.0213	PCI/G	0	U	14/12/2005	5:31	0.0308	PCI/G	0.0146	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	15067-28-4	Lead-214	TRG	U	HASL300	LB1	0.00222	0.0197	PCI/G	0	U	14/12/2005	5:31	0.037	PCI/G	0.0172	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	13966-31-9	Manganese-54	TRG	U	HASL300	LB1	0.0104	0.0106	PCI/G	0	U	14/12/2005	5:31	0.0221	PCI/G	0.0101	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14681-63-1	Niobium-94	TRG	U	HASL300	LB1	0.00659	0.0101	PCI/G	0	U	14/12/2005	5:31	0.0203	PCI/G	0.0093	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	13966-00-2	Potassium-40	TRG	U	HASL300	LB1	0.0461	0.173	PCI/G	0	U	14/12/2005	5:31	0.218	PCI/G	0.0937	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	13982-63-3	Radium-226	TRG	U	HASL300	LB1	0.0296	0.043	PCI/G	0	U	14/12/2005	5:31	0.0534	PCI/G	0.0251	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14391-65-2	Silver-108m	TRG	U	HASL300	LB1	-0.00333	0.00892	PCI/G	0	U	14/12/2005	5:31	0.017	PCI/G	0.00779	PCI/G	1	0	190	G		PCI/G		PR
	MSR#05-2782	1200995907	487705	14913-50-9	Thallium-208	TRG	U	HASL300	LB1	0.00354	0.0131	PCI/G	0	U	14/12/2005	5:31	0.0226	PCI/G	0.0104	PCI/G	1	0	190	G		PCI/G		PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14331-83-0	Actinium-228	TRG	U	HASL300	LR1	0.317	0.0957	PCI/G	0		15/12/2005	11:43	0.072	PCI/G	0.0332	PCI/G	1	3.5	178	G		PCI/G	0.412	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14596-10-2	Americium-241	TRG	U	HASL300	LR1	0.0469	0.0767	PCI/G	0	U	15/12/2005	11:43	0.137	PCI/G	0.0657	PCI/G	1	3.5	178	G		PCI/G	0.00602	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	LR1	0.256	0.141	PCI/G	0		15/12/2005	11:43	0.197	PCI/G	0.0929	PCI/G	1	3.5	178	G		PCI/G	0.405	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	LR1	0.305	0.0576	PCI/G	0		15/12/2005	11:43	0.049	PCI/G	0.0232	PCI/G	1	3.5	178	G		PCI/G	0.475	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13967-70-9	Cesium-134	TRG	U	HASL300	LR1	0.0132	0.0132	PCI/G	0	U	15/12/2005	11:43	0.0265	PCI/G	0.0124	PCI/G	1	3.5	178	G		PCI/G	-0.00624	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	10045-97-3	Cesium-137	TRG	U	HASL300	LR1	0.04	0.0162	PCI/G	0		15/12/2005	11:43	0.0193	PCI/G	0.00894	PCI/G	1	3.5	178	G		PCI/G	0.0422	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	LR1	0.00883	0.0127	PCI/G	0	U	15/12/2005	11:43	0.0248	PCI/G	0.0113	PCI/G	1	3.5	178	G		PCI/G	0.00	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14683-23-9	Europium-152	TRG	U	HASL300	LR1	-0.0287	0.0303	PCI/G	0	U	15/12/2005	11:43	0.0546	PCI/G	0.0257	PCI/G	1	3.5	178	G		PCI/G	-0.0485	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15585-10-1	Europium-154	TRG	U	HASL300	LR1	0.017	0.0431	PCI/G	0	U	15/12/2005	11:43	0.0796	PCI/G	0.0369	PCI/G	1	3.5	178	G		PCI/G	0.0547	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14391-16-3	Europium-155	TRG	U	HASL300	LR1	0.0382	0.0412	PCI/G	0	U	15/12/2005	11:43	0.0752	PCI/G	0.0361	PCI/G	1	3.5	178	G		PCI/G	0.0644	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15092-94-1	Lead-212	TRG	U	HASL300	LR1	0.324	0.0374	PCI/G	0		15/12/2005	11:43	0.0367	PCI/G	0.0176	PCI/G	1	3.5	178	G		PCI/G	0.352	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	15067-28-4	Lead-214	TRG	U	HASL300	LR1	0.35	0.0555	PCI/G	0		15/12/2005	11:43	0.0435	PCI/G	0.0206	PCI/G	1	3.5	178	G		PCI/G	0.380	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13966-31-9	Manganese-54	TRG	U	HASL300	LR1	7.91E-05	0.0125	PCI/G	0	U	15/12/2005	11:43	0.0232	PCI/G	0.0108	PCI/G	1	3.5	178	G		PCI/G	0.0132	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14681-63-1	Niobium-94	TRG	U	HASL300	LR1	0.001	0.0124	PCI/G	0	U	15/12/2005	11:43	0.0221	PCI/G	0.0104	PCI/G	1	3.5	178	G		PCI/G	-0.0213	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13966-00-2	Potassium-40	TRG	U	HASL300	LR1	7.45	0.505	PCI/G	0		15/12/2005	11:43	0.178	PCI/G	0.0786	PCI/G	1	3.5	178	G		PCI/G	7.69	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	13982-63-3	Radium-226	TRG	U	HASL300	LR1	0.305	0.0576	PCI/G	0		15/12/2005	11:43	0.049	PCI/G	0.0232	PCI/G	1	3.5	178	G		PCI/G	0.475	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14391-65-2	Silver-108m	TRG	U	HASL300	LR1	2.35E-05	0.0105	PCI/G	0	U	15/12/2005	11:43	0.0197	PCI/G	0.00927	PCI/G	1	3.5	178	G		PCI/G	-0.00276	PR
9801-0280-004-01C	MSR#05-2782	1200995908	487705	14913-50-9	Thallium-208	TRG	U	HASL300	LR1	0.102	0.0298	PCI/G	0		15/12/2005	11:43	0.0214	PCI/G	0.01	PCI/G	1	3.5	178	G		PCI/G	0.118	PR
	MSR#05-2782	1200995909	487705	14331-83-0	Actinium-228	TRG	U	HASL300	BS1	-0.49	0.613	PCI/G	0	U	14/12/2005	8:51	0.982	PCI/G	0.466	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	14596-10-2	Americium-241	TRG	U	HASL300	BS1	25.3	1.4	PCI/G	0		14/12/2005	8:51	1.06	PCI/G	0.517	PCI/G	1	0	100	G	24.4	PCI/G		PR
	MSR#05-2782	1200995909	487705	14913-49-6	Bismuth-212	TRG	U	HASL300	BS1	-0.308	1.02	PCI/G	0	U	14/12/2005	8:51	1.72	PCI/G	0.813	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	14733-03-0	Bismuth-214	TRG	U	HASL300	BS1	0.104	0.239	PCI/G	0	U	14/12/2005	8:51	0.428	PCI/G	0.204	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	13967-70-9	Cesium-134	TRG	U	HASL300	BS1	-0.00252	0.151	PCI/G	0	U	14/12/2005	8:51	0.259	PCI/G	0.122	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	10045-97-3	Cesium-137	TRG	U	HASL300	BS1	10	0.484	PCI/G	0		14/12/2005	8:51	0.247	PCI/G	0.118	PCI/G	1	0	100	G	9.34	PCI/G		PR
	MSR#05-2782	1200995909	487705	10198-40-0	Cobalt-60	TRG	U	HASL300	BS1	14.9	0.673	PCI/G	0		14/12/2005	8:51	0.192	PCI/G	0.0863	PCI/G	1	0	100	G	13.8	PCI/G		PR
	MSR#05-2782	1200995909	487705	14683-23-9	Europium-152	TRG	U	HASL300	BS1	0.249	0.292	PCI/G	0	U	14/12/2005	8:51	0.493	PCI/G	0.235	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	15585-10-1	Europium-154	TRG	U	HASL300	BS1	-0.0813	0.275	PCI/G	0	U	14/12/2005	8:51	0.489	PCI/G	0.218	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	14391-16-3	Europium-155	TRG	U	HASL300	BS1	0.263	0.309	PCI/G	0	U	14/12/2005	8:51	0.56	PCI/G	0.272	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	15092-94-1	Lead-212	TRG	U	HASL300	BS1	0.023	0.161	PCI/G	0	U	14/12/2005	8:51	0.276	PCI/G	0.133	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	15067-28-4	Lead-214	TRG	U	HASL300	BS1	0.0716	0.233	PCI/G	0	U	14/12/2005	8:51	0.395	PCI/G	0.189	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	13966-31-9	Manganese-54	TRG	U	HASL300	BS1	0.00165	0.141	PCI/G	0	U	14/12/2005	8:51	0.241	PCI/G	0.114	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	14681-63-1	Niobium-94	TRG	U	HASL300	BS1	0.0519	0.118	PCI/G	0	U	14/12/2005	8:51	0.21	PCI/G	0.0992	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	13966-00-2	Potassium-40	TRG	U	HASL300	BS1	0.46	1.3	PCI/G	0	U	14/12/2005	8:51	2.21	PCI/G	1.01	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	13982-63-3	Radium-226	TRG	U	HASL300	BS1	0.104	0.239	PCI/G	0	U	14/12/2005	8:51	0.428	PCI/G	0.204	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200995909	487705	14391-65-2	Silver-108m	TRG	U	HASL300	BS1	-0.0919	0.121	PCI/G	0	U	14/12/2005	8:51	0.19	PCI/G	0.0906	PCI/G	1	0	100	G		PCI/G		PR

	MSR#05-2782	1200995909	487705	14913-50-9	Thallium-208	TRG	U	HASL300	BS1	0.038	0.123	PCI/G	0	U	14/12/2005	8:51	0.219	PCI/G	0.104	PCI/G	1	0	100	G		PCI/G		PR
	MSR#05-2782	1200998937	488994	10098-97-2	Strontium-90	TRG	U	E905M	LB1	0.00716	0.00954	PCI/G	0	U	20/12/2005	8:11	0.0161	PCI/G	0.00766	PCI/G	1	0	10.6	G		PCI/G		PR
Sump ladder rung	MSR#05-2782	1200998938	488994	10098-97-2	Strontium-90	TRG	U	E905M	LR2	0.0144	0.0078	PCI/G	0		20/12/2005	8:11	0.0124	PCI/G	0.00592	PCI/G	1	0	10.6	G		PCI/G	0.0196	PR
Sump ladder rung	MSR#05-2782	1200998939	488994	10098-97-2	Strontium-90	TRG	U	E905M	MS2	3.18	0.225	PCI/G	0		20/12/2005	8:11	0.086	PCI/G	0.0376	PCI/G	1	0	5.3	G	2.93	PCI/G	2.95	PR
	MSR#05-2782	1200998940	488994	10098-97-2	Strontium-90	TRG	U	E905M	BS1	1.52	0.11	PCI/G	0		20/12/2005	8:11	0.0488	PCI/G	0.0217	PCI/G	1	0	10.6	G	1.47	PCI/G		PR

Attachment 2
ISFSI Records Entry Form
(Page 1 of 1)

NUCLEAR PLANT RECORDS TRANSMITTAL		NPR USE ONLY CONTROL NO. I U.N. NO. 2262
DEPARTMENT OF ORIGIN **Site Closure**	RECORDS CLASSIFICATION (SEE INSTRUCTIONS): ☐ CONFIDENTIAL ☐ SAFEGUARDS ☐ QA RECORD	DATE: **5/31/06**
TFI #: **11.10**	TFI TITLE: **50.75g Release Records**	RETENTION (Ref. Attachment 1): **L(+)LP+10**

ISFSI: ☐ **Type 1 (Dual Storage)** ✓ **Type 2** ☐ **Type 3** (Ref. Attachment 1)

DESCRIPTION OF RECORDS (NOTE: USE MORE THAN ONE TRANSMITTAL IF REQUIRED)

Work Plan and Inspection Record, WPIR, 24265-000-GEN-5000-00137-000, Underslab Subsurface Soil Sampling, 2004 and 2005 Radiological Characterization Activity.

This submittal is only the following portion of this WPIR: RCB Reactor Containment Building, 20'-6" Elevation, Survey / Sampling Work Plan SSWP Number BCY-SSWP-04-05-001.

Search the database using the WPIR number in the title field to find indexing information on all other components of this WPIR.

Special Instructions for OD processing: Optical Character Recognition (OCR) Required? ☐ YES ✓ NO

RECORDS ENTERED BY (PRINT NAME):	SUPERVISOR/PERSON ENTERING RECORDS (Signature):
AR Bejma/J. McCarthy	

RECEIPT (BY NPR)

DATE: 5/31/06	RECORDS ARE AS DESCRIBED BY ORIGINATOR: ☒ YES ☐ NO
CONDITION OF RECORDS: ☒ GOOD ☐ OTHER (Describe Below)	
RECEIVED AND ACCEPTED BY (SIGNATURE):	TEMPORARY FILE LOCATION NO.: NPR

PROCESSING (By NPR, Except for Adding 'Alternative Storage Ref.' As Applicable)

DATE PROCESSED	ASSIGNED OD NUMBER	SIGNATURE OF NPR PROCESSING PERSONNEL	ALTERNATIVE STORAGE REFERENCE	
			LOCATION	INDEXING REF. (IF ANY)
5/31/06	CY-031			

Survey/Sampling Work Plan – SSWP

GENERAL SECTION

SSWP Number: BCY-SSWP-04-05-001

Survey Unit # : 3002

Type of Survey: Characterization

Area Description : Reactor Containment Building: -20'-6" Elevation

DATA QUALITY OBJECTIVES (DQO)

MSR # 04-1700

1.0 STATE THE PROBLEM

The problem: Obtain additional characterization data in concrete to support remediation and final status survey (FSS) planning.

Stakeholders: The primary stakeholders interested in the answer to this problem are Connecticut Yankee, the CT Department of Environmental Protection (CTDEP) and the US Nuclear Regulatory Commission (USNRC).

The Planning Team: The planning team consisted of Integrated Site Closure Group (ISC) personnel. The primary decision maker for this plan will be the Site Release /Technical Support Lead with input from the planning team.

Schedule: This project has an expected duration of 1 working day including drilling, sample collection and sample cutting.

Resources: The primary resources needed to determine the answer to the problem are one operator and two laborers, one health physics technician and one radiological engineer. Ancillary support will be needed from the on-site Count Room and offsite lab for sample preparation, gamma spectroscopy and Hard to Detect radionuclide analysis.

2.0 IDENTIFY THE DECISION

The following decision needs to be defined to address the stated problem.

Principal Study Question: Is the radiological data obtained from sample analysis sufficient to adequately characterize the survey area?

Alternate Actions: Alternative actions include obtaining additional samples, performing additional analyses at an off-site facility to confirm gamma spectroscopy results and to identify and quantify hard-to-detect (HTD) radionuclides, and no action.

The Decision: Determine that the radiological data adequately characterizes the survey area. Consider additional sampling as necessary under a separate addendum to this sampling plan.

3.0 IDENTIFY THE INPUTS TO THE DECISION

Information Needed: Measurements of sample media are needed to identify and determine the concentration of those radionuclides that could potentially be present in sub-grade structures at the time of remediation, demolition and final status survey. Information is needed in concrete to establish how much neutron activation has occurred over the life of the plant, how much remediation may be required to reduce contamination levels to allow open air building demolition and whether the concrete can be left in place. The sample media is concrete obtained from one location taken directly under the reactor vessel from inside of the Reactor Containment Building (RCB) at the -20'-6" elevation.

Source of the Information: The new measurements will include collection and radionuclide-specific analysis of concrete wafers. The collection process will typically use an electrical drill for coring. Cores

will be sliced into wafers for analysis. Analysis for hard-to-detect (HTD) radionuclides will not be performed under this SSWP as an output of the decision process. All samples will be analyzed for tritium and gamma emitting radionuclides. No QC measurements are necessary given the limited area of investigation, number of samples and the purpose of the survey (i.e., to collect characterization data).

Table 1 shows the required radionuclides for analysis and the necessary detection sensitivity for the analytical and measurement process. The sensitivity or minimum detectable concentration (MDC) is set at 4% of the base-case DCGL values listed in Table 6-4 of the License Termination Plan (LTP). Note, the specified MDC is lower than 10% of the DCGL that is recommended by the Section 5.5 of the LTP for fixed measurements (fixed measurements include samples). However, the MDC is the same as the MDC specified in recent FSS sample plans designed to achieve a 10 mrem/year Total Effective Dose Equivalent (TEDE).

Table 1 – Analytic matrix. Includes radionuclide and Base Case DCGL from Table 6-4 of the LTP and the required sensitivity or MDC for analysis

Nuclide	Concrete $DCGL_{25}$ (pCi/g)	MDC (pCi/g)
H-3	9.05E+01	3.62E+00
C-14	2.05E+01	8.20E-01
Mn-54	5.51E+01	2.20E+00
Fe-55	8.96E+01	3.58E+00
Co-60	9.07E+01	3.63E+00
Ni-63	1.29E+02	5.16E+00
Sr-90	3.77E-01	1.51E-02
Nb-94	7.74E+00	3.10E-01
Tc-99	2.85E+01	1.14E+00
Ag-108m	2.59E+01	1.04E+00
Cs-134	3.21E+02	1.28E+01
Cs-137	6.45E+02	2.58E+01
Eu-152	2.27E+02	9.08E+00
Eu-154	1.94E+02	7.76E+00
Eu-155	9.53E+03	3.81E+02
Pu-238	1.14E+01	4.56E-01
Pu-239/240	1.00E+01	4.00E-01
Pu-241	1.49E+02	5.96E+00
Am-241	4.42E+00	1.77E-01
Cm-243/244	3.83E+00	1.53E-01

4.0 DEFINE THE BOUNDARIES OF THE SURVEY.

Boundaries of the survey: The focus of this SSWP will be to collect one concrete sample at a predetermined location in the In Core Instrumentation cubicle of the RCB (elevation -20'-6", refer to Attachment 1). The concrete core will be identified under a general RCB designator of 3002.

The general orientation of the sample measurement location (SML) is shown in Attachment 1. The sample location may be moved slightly to accommodate demolition debris. Additional sampling may be necessary to determine the need and amount of decontamination and remediation efforts.

Temporal boundaries: Sampling will normally be performed during dayshift.

Constraints: Constraints include inadequate electrical supply, poor lighting, wet surfaces and confined spaces.

5.0 DEVELOP A DECISION RULE

The following decisions rules have been developed to define a logical process for choosing among alternative actions for the principal study questions associated with this survey unit.

Decision Rule (1): If obstruction prevents further travel of the coring drill, determine if there is sufficient sample for analysis. Consider moving the SML location to obtain a new sample of sufficient quantity, otherwise stop sampling at this SML. Document conclusion of the decision in the Daily Survey Journal sheet.

Decision Rule (2): If all analyses meet the required sensitivity with no anomalous or suspect results (e.g., identification of a gamma-emitting radionuclide not contained in Table 1 and not attributable to natural radioactivity) then no further action is required under this SSWP. Otherwise, reanalyze sample or consider performing additional analyses for other hard-to-detect (HTD) radionuclides.

6.0 SPECIFY TOLERABLE LIMITS ON DECISION ERRORS

There are no limits on decision errors for characterization surveys.

7.0 OPTIMIZE DESIGN

Number of biased samples and locations: There is one biased SML for sampling under this SSWP as shown on Attachment 1. This SML was determined by the planning team based on the output of the data quality objectives performed under SSWP 04-05-001, the Decommissioning Request for Proposal (CY-04-001) and the concrete DCGLs in the LTP.

DQO STEPS COMPLETE (signature signifies affirmative response)

K Allen Beck , 5/20/04

ISC Radiological Engineer Date

GENERAL INSTRUCTIONS

1. Characterization activities will be performed under WP&IR number 24265-000-GEN-5000-00137-000.
2. Cognizant radiological engineers to review pictures, radiological surveys and plant drawings of the area.
3. Sampling equipment and supplies will consist of some or all of the following; concrete coring drill and drill bits, new marinelli containers, tape and tamper-evident tape, trowels, hacksaw, marker and new plastic bags for preparing samples and packaging off-site samples. Other equipment may include utility knifes, poly sheeting, location marker paint and hand augers.
4. Ensure obstructions are removed to provide suitable access for equipment and personnel.
5. Sample locations should be identified or labeled when possible.
6. Samples will be obtained in accordance with RPM 5.1-3, *"Collection of Surface and Subsurface Soil, Shoreline Sediment, Asphalt and Liquid Samples for Scoping, Characterization and Final Status Surveys"* and in accordance with the Work Plan and Inspection Record (WP&IR) and this SSWP.
7. Sample nomenclature will be as suggested by RPM 5.1-2, *"Preparation of Characterization, Remedial Action and Turnover Survey Plans"* with some modification to align the procedural format with the need to obtain multiple samples from the same location. For example, 3002-0000-187-C-1C-01 represents the first concrete core wafer from the first core taken at SML #187. The dashes ("-") shown in the procedure are optional and are not required.
8. The cognizant radiological engineer will determine whether sufficient sample media has been collected for analysis in instances where only a partial core sample was obtained.
9. The cognizant radiological engineer will ensure that hole is backfilled or covered, and the liner is sealed. Also, the cognizant radiological engineer will document the method used in the Daily Survey Journal.
10. Samples will be handled in accordance with procedure RPM 5.1-5, *"Chain of Custody for Final Status Survey Samples."*
11. Sample analyses should meet the sensitivity requirements provided in Table 1 to this SSWP.
12. Documents generated during the performance of this SSWP will be complete and legible. Corrections will be made using a single line-out followed by an initial and date.

SPECIFIC INSTRUCTIONS

1. Initiate and utilize the Daily Survey Journal Sheet in accordance with RPM 5.1-11, *"Preparation of Final Status Survey Plans."*
2. Sample instructions (Attachment 1 provides location).
   a. Proceed to the selected SML denoted on Attachment 1 and designated by Table 2.

Table 2 – Sample Measurement Location (SML)

SML	TYPE	Concrete Designation
187	Concrete	3002-0000-187

   b. Implement radiological controls as required by RWP 4121 rev 0.

c. Perform concrete coring at the selected location.

(1). Setup work area with ground fault protected electrical supply.

(2). Attach the drill rig to the sampling location by vacuum system or bolt.

(3). Drill only through the concrete to the liner (estimated thickness is 10 inches).

(4). Identify the top by placing a "T" or arrow on the core, place into a double plastic bag or single vacuum sealed bag to maintain moisture content.

(5). Label in accordance with designation number provided in Table 2 followed by a "C-1C". Subsequent cores are identified as "C-2C", "C-3C" etc.

d. Generate a Sample Control and Accountability form for the samples.

(1). Record sample information on a Sample Control and Accountability form.

(2). Place a security tamper seal on the container or maintain physical control until sample(s) are transferred to an appropriate locked storage area.

(3). Record sample location information on the Sample Control and Accountability form.

e. Disposition samples for analysis.

(1). Set-up area for sample preparation in the Old Chemistry Laboratory (survey area 5114) or where directed by health physics.

(2). Slice the concrete core into approximately 1 inch wafers.

(3). Place the wafers into double plastic bags or into a vacuum sealed single bag, apply tamper proof tape and label each sample with "01", "02" etc, after the core designation.

(4). If a large piece of rebar is present in the core, attempt to remove the rebar from the concrete and place into a separate bag.

f. Generate a COC for samples being analyzed onsite.

(1). Record sample IDs, dates, times and codes.

(2). The analysis code is "CHGAM" for all samples.

g. Generate a COC for samples being analyzed offsite.

(1). Record "General Engineering Laboratories" as the analysis laboratory.

(2). Record sample IDs, dates, times and codes.

(3). The analysis codes are "CHGAM", "H-3", "C-14", Fe-55" and "Ni-63" for all concrete samples. *

(4). If a rebar sample was obtained, the analysis code is "CHGAM" and "Fe-55".

* An additional analysis code of "CHTRU" will be assigned for the first wafer RH 6/7/04 [illegible] 6/7/04

h. Evaluate the data and determine appropriate actions based upon the decision rules in Section 5.

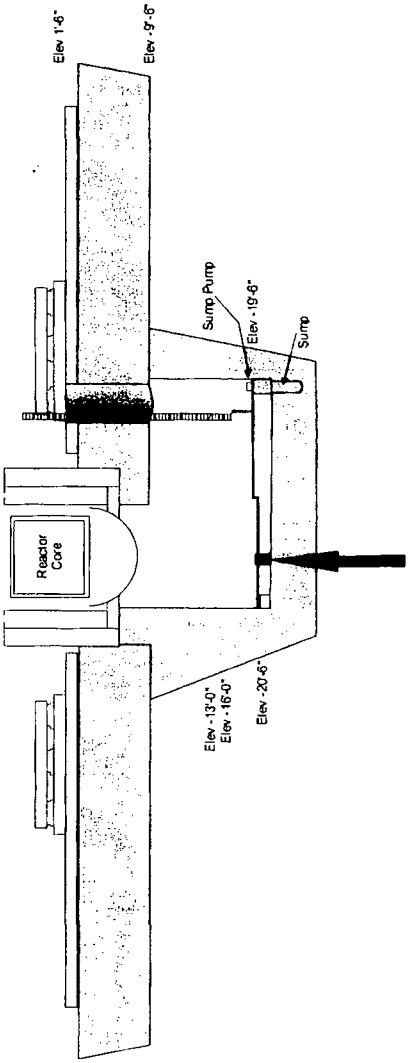
Prepared by P Hollenbeck Date 5/20/04
Radiological Engineer

Reviewed by [illegible] Date 5/20/04

Survey/Sampling Work Plan – SSWP

Attachment 1 – Sample Location Map

Attachment 1



CONNECTICUT YANKEE ATOMIC POWER COMPANY
GENERAL ARRANGEMENT DRAWING
REACTOR BUILDING - ICI CUBICLE
ELEVATION: -20'-6"

INITIAL CREATION DATE:	06/18/97	
REVISION DATE:	06/06/01	
REVISION #:	7	
MAP #:	GAD3000	

LEGEND:
FLOOR WALL INTERSECTION
SURVEY AREA BOUNDARY
SURVEY AREA
SURVEY UNIT BOUNDARY

Plant North

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

June 15, 2004

Mr. Pete Hollenbeck
Connecticut Yankee Atomic Power
Haddam Neck Plant 362 Injun Hollow Road
East Hampton, Connecticut 06424

RE: PO# 002337-Pete Hollenbeck
Work Order: 114018
SDG: MSR#04-1700

BCY-SSWP-04-05-001

Dear Mr. Hollenbeck:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on June 02, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4475.

Sincerely,

Sarah Kozlik
Project Manager

Purchase Order: 002337
Chain of Custody: 2004-00089
Enclosures

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: PO# 002337-Pete Hollenbeck
Work Order: 114018
SDG: MSR#04-1700

June 15, 2004

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt

The samples for the Concrete Project for work order 114018 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina June 2, 2004 for environmental analysis. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following samples:

3002-0000-187-C-1C-01
3002-0000-187-C-1C-02
3002-0000-187-C-1C-03
3002-0000-187-C-1C-04
3002-0000-187-C-1C-05
3002-0000-187-C-1C-06
3002-0000-187-C-1C-07
3002-0000-187-C-1C-08.

Items of Note:

There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Eight concrete samples were analyzed for CHGAM, H-3, Fe-55, C-14, and Ni-63. One of the eight concrete samples was also analyzed for CHTRU.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Sarah Kozlik
Project Manager

CASE NARRATIVE

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CONNECTICUT YANKEE
PO# 002337-Pete Hollenbeck
Work Order: 114018
SDG: MSR#04-1700

114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-00089

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:
P.D. 6/2/04
~~114018~~ / 114018%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Fe-55	C-14	Ni-63	CHTRU	Comment, Preservation	Lab Sample ID
001	3002-0000-187-C-1C-01	5/26/04	1500	CT	CR	BP	X	X	X	X	X	X		
002	3002-0000-187-C-1C-02	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
003	3002-0000-187-C-1C-03	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
004	3002-0000-187-C-1C-04	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
005	3002-0000-187-C-1C-05	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
006	3002-0000-187-C-1C-06	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
007	3002-0000-187-C-1C-07	5/26/04	1500	CT	CR	BP	X	X	X	X	X			
008	3002-0000-187-C-1C-08	5/26/04	1500	CT	CR	BP	X	X	X	X	X			

NOTES: PO #: 002337 MSR #: 04-1700 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
84182803832O
Bill of Lading #

Internal Container Temp.: 22 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By [signature] Date/Time 4/1/04 1245	2) Received By [signature] Date/Time 6-2-04 0915
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Conn. Yankee	SDG/ARCOC/Work Order:
Date Received: 6-2-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: MK	Sarah Kowalski

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓			ice bags blue ice dry ice none other(describe) 2-2C
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected: 1 PER ID
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill & Tracking #'s				FED ex # 8418 2803 8320

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?	✓			Comments:
Radioactivity Screening Results (maximum observed CPM)	CPM 4000			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate

1.2 mR/HR - 01

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-1700

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	338662
Prep Batch Number:	338661
Dry Soil Prep GL-RAD-A-021 Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
1200637950	Method Blank (MB)
1200637953	Laboratory Control Sample (LCS)
1200637951	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637952	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200637952 (3002-0000-187-C-1C-01) and 1200637953 (LCS) were recounted due to tailing.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	338663
Prep Batch Number:	338661
Dry Soil Prep GL-RAD-A-021 Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
1200637954	Method Blank (MB)
1200637957	Laboratory Control Sample (LCS)
1200637955	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637956	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 114018001 (3002-0000-187-C-1C-01), 1200637954 (MB) and 1200637955 (3002-0000-187-C-1C-01) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	338664
Prep Batch Number:	338661
Dry Soil Prep GL-RAD-A-021 Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
1200637958	Method Blank (MB)
1200637961	Laboratory Control Sample (LCS)
1200637959	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637960	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 119581 was generated due to RDL less than MDA. 1. Samples 114018001 and 1200637958 did not meet the detection limit due to small sample volumes used because of limited sample volume. Samples were counted for the maximum lsc count time of 500 minutes. 1. Reporting results.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	338665
Prep Batch Number:	338661
Dry Soil Prep GL-RAD-A-021 Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08
1200637964	Method Blank (MB)

1200637967	Laboratory Control Sample (LCS)
1200637965	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637966	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
The Matrix Spike 1200637966 (3002-0000-187-C-1C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200637967 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	338669
Prep Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08
1200637980	Method Blank (MB)
1200637982	Laboratory Control Sample (LCS)
1200637981	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-137	114018002
		Lead-212	114018008
		Thallium-208	1200637981
		Zinc-65	114018001
UI	Data rejected due to no valid peak.	Potassium-40	114018001
			114018002
			114018003
			114018005
			114018006
			114018007
			114018008
			1200637981

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	338667

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08
1200637972	Method Blank (MB)
1200637975	Laboratory Control Sample (LCS)
1200637973	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637974	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
The Matrix Spike 1200637974 (3002-0000-187-C-1C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
The blank 1200637972 (MB) did not meet the detection limit due to keeping the blank volume consistent with the other sample volumes. All other samples met the detection limit.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	338668

Sample ID	**Client ID**

114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08
1200637976	Method Blank (MB)
1200637979	Laboratory Control Sample (LCS)
1200637977	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200637978	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
The Matrix Spike 1200637978 (3002-0000-187-C-1C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 114018007 (3002-0000-187-C-1C-07) was requenched and recounted due to the quench number being out of calibration range.
Samples 114018001 (3002-0000-187-C-1C-01) and 1200637977 (3002-0000-187-C-1C-01) were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 120076 was generated due to Failed RPD for DUP. 1. Sample 114018001 and dup 1200637977 did not meet the relative percent difference due to the non homogenous matrix of the sample. 1. Reporting reports.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	341858
Prep Batch Number:	338661
Dry Soil Prep GL-RAD-A-021 Batch Number:	338660

Sample ID	Client ID
114018001	3002-0000-187-C-1C-01
114018002	3002-0000-187-C-1C-02
114018003	3002-0000-187-C-1C-03
114018004	3002-0000-187-C-1C-04
114018005	3002-0000-187-C-1C-05
114018006	3002-0000-187-C-1C-06
114018007	3002-0000-187-C-1C-07
114018008	3002-0000-187-C-1C-08
1200645631	Method Blank (MB)
1200645634	Laboratory Control Sample (LCS)
1200645632	114018001(3002-0000-187-C-1C-01) Sample Duplicate (DUP)
1200645633	114018001(3002-0000-187-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 114018001 (3002-0000-187-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to high relative percent difference/relative error ratio.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank result for 1200645631 (MB) is greater than the MDA but less than the detection limit.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Heather A. Cedar 01/21/04

Reviewer:_____

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 119581
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:		Type:
15-JUN-04	Radiochemistry		Process
Instrument Type:	**Quality Criteria:**		**Client Code:**
LSC	Specifications		YANK
Test / Method:	**Matrix Type:**	**Batch ID:**	**Sample Numbers:**
DOE EML HASL-300, Pu-11-RC Modified	Solid	338664	See Below

Potentially affected work order(s)(SDG): 114018(MSR#04-1700)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 114018001 and 1200637958 did not meet the detection limit due to small sample volumes used because of limited sample volume. Samples were counted for the maximum lsc count time of 500 minutes.	1. Reporting results.

Originator's Name:
Melanie Aycock 15-JUN-04

Data Validator/Group Leader:
Joseph Jones 15-JUN-04

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 120076
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:		Type:
16-JUN-04	Radiochemistry		Process
Instrument Type:	**Quality Criteria:**		**Client Code:**
LSC	Specifications		YANK
Test / Method:	**Matrix Type:**	**Batch ID:**	**Sample Numbers:**
EPA EERF C-01 Modified	Solid	338668	See Below

Potentially affected work order(s)(SDG): 114018(MSR#04-1700)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 114018001 and dup 1200637977 did not meet the relative percent difference due to the non homogenous matrix of the sample.	1. Reporting reports.

Originator's Name:
Melanie Aycock 16-JUN-04

Data Validator/Group Leader:
Joseph Jones 16-JUN-04

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

MSR # 04-1700

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-01	Project:	YANK00204
Sample ID:	114018001	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	9.89%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)													
Americium-241		0.289	+/-0.113	0.00	+/-0.117	0.0313	pCi/g		RDD	06/10/04	2224	338662	1
Curium-242	U	0.00	+/-0.0242	0.00	+/-0.0242	0.0335	pCi/g						
Curium-243/244		0.0742	+/-0.0614	0.0206	+/-0.0619	0.0725	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-238		0.165	+/-0.0665	0.0201	+/-0.0676	0.0566	pCi/g		RDD	06/14/04	1525	338663	2
Plutonium-239/240		0.171	+/-0.0675	0.020	+/-0.0687	0.0566	pCi/g						
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	-0.885	+/-5.32	4.25	+/-5.21	8.53	pCi/g		ADD	06/07/04	1523	338669	3
Americium-241	U	1.02	+/-3.23	2.29	+/-3.16	4.60	pCi/g						
Bismuth-212	U	-2.78	+/-9.94	6.59	+/-9.75	13.2	pCi/g						
Bismuth-214	U	-0.0769	+/-2.02	1.35	+/-1.98	2.71	pCi/g						
Cesium-134		6.91	+/-2.14	1.04	+/-2.10	2.09	pCi/g						
Cesium-137		592	+/-67.2	0.809	+/-65.9	1.62	pCi/g						
Cobalt-60		2230	+/-174	0.725	+/-171	1.46	pCi/g						
Europium-152		453	+/-29.9	1.53	+/-29.3	3.08	pCi/g						
Europium-154		55.9	+/-7.54	2.03	+/-7.39	4.10	pCi/g						
Europium-155	U	1.22	+/-1.73	1.24	+/-1.69	2.48	pCi/g						
Lead-212	U	0.299	+/-1.04	0.746	+/-1.02	1.50	pCi/g						
Lead-214	U	-1.31	+/-1.42	1.09	+/-1.40	2.18	pCi/g						
Manganese-54		2.94	+/-1.56	0.997	+/-1.53	2.00	pCi/g						
Niobium-94	U	0.346	+/-0.954	0.727	+/-0.935	1.46	pCi/g						
Potassium-40	U	0.00	+/-14.5	5.41	+/-14.2	10.9	pCi/g						
	UI												
Radium-226	U	-0.0769	+/-2.02	1.35	+/-1.98	2.71	pCi/g						
Silver-108m	U	-0.0476	+/-0.784	0.602	+/-0.768	1.21	pCi/g						
Thallium-208	U	0.910	+/-1.08	0.724	+/-1.06	1.45	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		326	+/-16.5	3.71	+/-37.1	7.42	pCi/g		AAK	06/10/04	1953	338667	4
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		1600	+/-12.4	0.863	+/-28.6	1.79	pCi/g		AAK	06/15/04	1525	338668	6
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		830	+/-9.09	0.811	+/-33.9	1.69	pCi/g		AAK	06/15/04	0900	338665	7

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-01
Sample ID: 114018001

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		791	+/-15.9	2.49	+/-32.4	5.19	pCi/g		AAK	06/18/04	0415	341858	8
Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-241	U	2.04	+/-3.46	2.89	+/-3.46	5.82	pCi/g		RDD	06/13/04	1501	338664	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1210	338661
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	NXL1	06/07/04	1009	338660
GL-RAD-A-026	Laboratory sample composite	ADD	06/04/04	1722	338659

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	EML HASL 300, 4.5.2.3
4	EPA 906.0 Modified
5	GL-RAD-A-026
6	EPA EERF C-01 Modified
7	DOE RESL Fe-1, Modified
8	DOE RESL Ni-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Pu-11-RC Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	91	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	97	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	80	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	34	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	96	

Notes:
The Qualifiers in this report are defined as follows :

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Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-01
Sample ID: 114018001

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-02	Project:	YANK00204
Sample ID:	114018002	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	0.406	+/-2.73	2.12	+/-2.67	4.27	pCi/g		ADD	06/07/04	1524	338669	1
Americium-241	U	0.417	+/-1.28	0.933	+/-1.26	1.88	pCi/g						
Bismuth-212	U	1.17	+/-5.35	3.68	+/-5.25	7.42	pCi/g						
Bismuth-214	U	0.995	+/-1.09	0.754	+/-1.06	1.52	pCi/g						
Cesium-134		5.44	+/-1.28	0.557	+/-1.26	1.12	pCi/g						
Cesium-137	U	0.00	+/-0.585	0.456	+/-0.573	0.919	pCi/g						
	UI												
Cobalt-60		392	+/-26.5	0.314	+/-25.9	0.640	pCi/g						
Europium-152		519	+/-34.5	0.797	+/-33.8	1.61	pCi/g						
Europium-154		52.9	+/-6.03	1.00	+/-5.91	2.04	pCi/g						
Europium-155	U	1.40	+/-1.30	0.780	+/-1.27	1.57	pCi/g						
Lead-212	U	0.647	+/-0.553	0.409	+/-0.542	0.824	pCi/g						
Lead-214	U	0.322	+/-0.764	0.563	+/-0.749	1.14	pCi/g						
Manganese-54	U	0.741	+/-0.643	0.510	+/-0.630	1.03	pCi/g						
Niobium-94	U	0.418	+/-0.514	0.403	+/-0.504	0.812	pCi/g						
Potassium-40	U	0.00	+/-4.46	2.42	+/-4.37	4.98	pCi/g						
	UI												
Radium-226	U	0.995	+/-1.09	0.754	+/-1.06	1.52	pCi/g						
Silver-108m	U	0.232	+/-0.402	0.296	+/-0.394	0.596	pCi/g						
Thallium-208	U	0.648	+/-0.595	0.414	+/-0.583	0.835	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		1590	+/-34.1	3.46	+/-165	6.91	pCi/g		AAK	06/10/04	2024	338667	2
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		5.18	+/-0.532	0.368	+/-0.539	0.747	pCi/g		AAK	06/14/04	2048	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		651	+/-7.37	0.723	+/-26.6	1.50	pCi/g		AAK	06/15/04	1020	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		4.09	+/-0.966	0.724	+/-0.977	1.48	pCi/g		AAK	06/18/04	0517	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-02
Sample ID: 114018002

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	74	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	64	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-03	Project:	YANK00204
Sample ID:	114018003	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	10.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	-0.599	+/-2.63	2.08	+/-2.58	4.20	pCi/g		ADD	06/07/04	1524	338669	1
Americium-241	U	-0.579	+/-1.35	0.965	+/-1.33	1.94	pCi/g						
Bismuth-212	U	4.02	+/-5.60	3.72	+/-5.49	7.49	pCi/g						
Bismuth-214	U	0.344	+/-1.13	0.753	+/-1.11	1.52	pCi/g						
Cesium-134		4.54	+/-1.28	0.562	+/-1.26	1.13	pCi/g						
Cesium-137	U	0.165	+/-0.757	0.446	+/-0.742	0.900	pCi/g						
Cobalt-60		319	+/-25.1	0.360	+/-24.6	0.734	pCi/g						
Europium-152		500	+/-33.6	0.833	+/-32.9	1.68	pCi/g						
Europium-154		47.2	+/-5.74	2.16	+/-5.63	4.35	pCi/g						
Europium-155		2.49	+/-1.48	0.800	+/-1.45	1.61	pCi/g						
Lead-212	U	0.411	+/-0.577	0.417	+/-0.566	0.840	pCi/g						
Lead-214	U	-0.334	+/-0.758	0.580	+/-0.742	1.17	pCi/g						
Manganese-54	U	0.0116	+/-0.655	0.521	+/-0.642	1.05	pCi/g						
Niobium-94	U	0.0998	+/-0.537	0.407	+/-0.526	0.821	pCi/g						
Potassium-40	U	0.00	+/-4.19	2.46	+/-4.11	5.05	pCi/g						
	UI												
Radium-226	U	0.344	+/-1.13	0.753	+/-1.11	1.52	pCi/g						
Silver-108m	U	0.310	+/-0.396	0.305	+/-0.388	0.616	pCi/g						
Thallium-208	U	0.0969	+/-0.621	0.415	+/-0.609	0.837	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		2110	+/-40.8	3.74	+/-224	7.49	pCi/g		AAK	06/10/04	2055	338667	2
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		3.44	+/-0.506	0.370	+/-0.509	0.753	pCi/g		AAK	06/14/04	2149	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		675	+/-8.80	1.02	+/-27.7	2.11	pCi/g		AAK	06/15/04	1152	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		3.34	+/-0.980	0.751	+/-0.987	1.54	pCi/g		AAK	06/18/04	0619	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-03
Sample ID: 114018003

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	74	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	61	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-04	Project:	YANK00204
Sample ID:	114018004	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	9.18%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.387	+/-2.43	1.94	+/-2.39	3.91	pCi/g		ADD 06/07/04	1525	338669	1
Americium-241	U	0.676	+/-1.32	0.868	+/-1.30	1.75	pCi/g					
Bismuth-212	U	-3.37	+/-5.23	3.41	+/-5.13	6.89	pCi/g					
Bismuth-214	U	0.292	+/-0.918	0.703	+/-0.900	1.42	pCi/g					
Cesium-134		3.24	+/-1.13	0.517	+/-1.11	1.04	pCi/g					
Cesium-137	U	0.124	+/-0.541	0.413	+/-0.530	0.833	pCi/g					
Cobalt-60		258	+/-15.7	0.339	+/-15.4	0.693	pCi/g					
Europium-152		418	+/-28.3	0.731	+/-27.7	1.48	pCi/g					
Europium-154		38.2	+/-5.19	2.00	+/-5.08	4.05	pCi/g					
Europium-155	U	0.483	+/-1.34	0.709	+/-1.32	1.43	pCi/g					
Lead-212	U	0.341	+/-0.511	0.372	+/-0.501	0.751	pCi/g					
Lead-214	U	0.843	+/-0.801	0.519	+/-0.785	1.05	pCi/g					
Manganese-54	U	0.0267	+/-0.646	0.488	+/-0.633	0.984	pCi/g					
Niobium-94	U	0.131	+/-0.493	0.375	+/-0.483	0.758	pCi/g					
Potassium-40	U	2.45	+/-4.19	3.25	+/-4.11	6.65	pCi/g					
Radium-226	U	0.292	+/-0.918	0.703	+/-0.900	1.42	pCi/g					
Silver-108m	U	-0.198	+/-0.355	0.271	+/-0.348	0.548	pCi/g					
Thallium-208	U	0.585	+/-0.571	0.387	+/-0.560	0.780	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		3010	+/-47.1	3.51	+/-310	7.02	pCi/g		AAK 06/10/04	2126	338667	2
Laboratory Composite												
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)												
Carbon-14		3.13	+/-0.495	0.366	+/-0.498	0.744	pCi/g		AAK 06/14/04	2250	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55		597	+/-7.39	0.822	+/-24.4	1.70	pCi/g		AAK 06/15/04	1545	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63		3.12	+/-0.979	0.754	+/-0.985	1.54	pCi/g		AAK 06/18/04	0720	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	NXL1	06/07/04	1009	338660

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-04
Sample ID: 114018004

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	73	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	63	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Reviewed by

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-05	Project:	YANK00204
Sample ID:	114018005	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	9.58%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	0.193	+/-3.64	2.83	+/-3.57	5.75	pCi/g		ADD	06/14/04	1458	338669	1
Americium-241	U	0.346	+/-1.78	1.29	+/-1.74	2.62	pCi/g						
Bismuth-212	U	7.30	+/-7.30	5.12	+/-7.16	10.4	pCi/g						
Bismuth-214	U	-1.54	+/-1.35	1.03	+/-1.33	2.09	pCi/g						
Cesium-134		2.30	+/-1.67	0.765	+/-1.64	1.56	pCi/g						
Cesium-137	U	0.0508	+/-0.763	0.597	+/-0.748	1.22	pCi/g						
Cobalt-60		245	+/-17.0	0.417	+/-16.6	0.875	pCi/g						
Europium-152		338	+/-23.0	1.12	+/-22.5	2.28	pCi/g						
Europium-154		28.6	+/-4.60	2.80	+/-4.51	5.71	pCi/g						
Europium-155	U	0.00415	+/-1.49	1.09	+/-1.46	2.20	pCi/g						
Lead-212	U	1.00	+/-0.784	0.588	+/-0.769	1.19	pCi/g						
Lead-214	U	0.977	+/-1.05	0.788	+/-1.03	1.60	pCi/g						
Manganese-54	U	-0.0908	+/-0.928	0.720	+/-0.909	1.47	pCi/g						
Niobium-94	U	-0.323	+/-0.694	0.536	+/-0.680	1.09	pCi/g						
Potassium-40	U	0.00	+/-7.67	3.25	+/-7.52	6.91	pCi/g						
	UI												
Radium-226	U	-1.54	+/-1.35	1.03	+/-1.33	2.09	pCi/g						
Silver-108m	U	-0.217	+/-0.548	0.397	+/-0.537	0.809	pCi/g						
Thallium-208	U	0.411	+/-0.810	0.567	+/-0.793	1.15	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		2350	+/-41.3	3.45	+/-236	6.91	pCi/g		AAK	06/10/04	2157	338667	2
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		2.11	+/-0.487	0.374	+/-0.488	0.761	pCi/g		AAK	06/14/04	2351	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		542	+/-7.01	0.821	+/-22.2	1.70	pCi/g		AAK	06/15/04	1732	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		3.10	+/-1.20	0.942	+/-1.21	1.93	pCi/g		AAK	06/18/04	0822	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-05
Sample ID: 114018005

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	73	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	50	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-06	Project:	YANK00204
Sample ID:	114018006	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	9.16%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.506	+/-1.55	1.19	+/-1.52	2.41	pCi/g		ADD 06/07/04	1526	338669	1
Americium-241	U	0.187	+/-0.641	0.462	+/-0.629	0.932	pCi/g					
Bismuth-212	U	2.60	+/-3.02	2.05	+/-2.96	4.14	pCi/g					
Bismuth-214	U	-1.53	+/-0.584	0.421	+/-0.573	0.849	pCi/g					
Cesium-134		1.84	+/-0.692	0.313	+/-0.678	0.632	pCi/g					
Cesium-137	U	0.203	+/-0.321	0.252	+/-0.315	0.508	pCi/g					
Cobalt-60		216	+/-16.8	0.199	+/-16.5	0.407	pCi/g					
Europium-152		246	+/-16.5	0.498	+/-16.2	1.00	pCi/g					
Europium-154		21.8	+/-2.79	1.13	+/-2.73	2.28	pCi/g					
Europium-155	U	0.342	+/-0.831	0.527	+/-0.814	1.06	pCi/g					
Lead-212	U	0.238	+/-0.459	0.262	+/-0.449	0.528	pCi/g					
Lead-214	U	0.250	+/-0.558	0.342	+/-0.547	0.690	pCi/g					
Manganese-54	U	-0.0762	+/-0.378	0.291	+/-0.370	0.588	pCi/g					
Niobium-94	U	0.181	+/-0.293	0.229	+/-0.287	0.462	pCi/g					
Potassium-40	U	0.00	+/-3.99	1.52	+/-3.91	3.13	pCi/g					
	UI											
Radium-226	U	-1.53	+/-0.584	0.421	+/-0.573	0.849	pCi/g					
Silver-108m	U	-0.18	+/-0.232	0.172	+/-0.227	0.347	pCi/g					
Thallium-208	U	0.140	+/-0.343	0.236	+/-0.337	0.476	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		2890	+/-46.5	3.56	+/-296	7.13	pCi/g		AAK 06/10/04	2228	338667	2
Laboratory Composite												
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)												
Carbon-14		1.39	+/-0.453	0.357	+/-0.453	0.726	pCi/g		AAK 06/15/04	0052	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55		341	+/-5.12	0.692	+/-14.2	1.43	pCi/g		AAK 06/15/04	1926	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63		14.6	+/-2.11	1.47	+/-2.17	3.01	pCi/g		AAK 06/18/04	0923	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-06
Sample ID: 114018006

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	30	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-07	Project:	YANK00204
Sample ID:	114018007	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	8.63%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	0.753	+/-2.76	2.19	+/-2.71	4.45	pCi/g		ADD	06/07/04	1527	338669	1
Americium-241	U	0.137	+/-0.567	0.387	+/-0.556	0.784	pCi/g						
Bismuth-212	U	-2.24	+/-5.70	3.87	+/-5.58	7.88	pCi/g						
Bismuth-214	U	-1.09	+/-1.11	0.805	+/-1.09	1.64	pCi/g						
Cesium-134		1.31	+/-1.16	0.596	+/-1.14	1.21	pCi/g						
Cesium-137	U	0.657	+/-0.917	0.460	+/-0.898	0.937	pCi/g						
Cobalt-60		127	+/-7.29	0.353	+/-7.15	0.737	pCi/g						
Europium-152		192	+/-15.7	0.838	+/-15.3	1.70	pCi/g						
Europium-154		15.2	+/-2.81	1.77	+/-2.75	3.62	pCi/g						
Europium-155	U	0.378	+/-1.09	0.757	+/-1.07	1.53	pCi/g						
Lead-212	U	0.151	+/-0.579	0.436	+/-0.567	0.883	pCi/g						
Lead-214	U	0.590	+/-0.971	0.597	+/-0.951	1.21	pCi/g						
Manganese-54	U	-0.503	+/-0.684	0.530	+/-0.670	1.08	pCi/g						
Niobium-94	U	-0.136	+/-0.563	0.418	+/-0.552	0.852	pCi/g						
Potassium-40	U	0.00	+/-4.92	2.58	+/-4.82	5.49	pCi/g						
	UI												
Radium-226	U	-1.09	+/-1.11	0.805	+/-1.09	1.64	pCi/g						
Silver-108m	U	0.031	+/-0.421	0.317	+/-0.413	0.645	pCi/g						
Thallium-208	U	-0.162	+/-0.674	0.438	+/-0.661	0.891	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		2870	+/-47.4	3.73	+/-300	7.46	pCi/g		AAK	06/10/04	2259	338667	2
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14	U	0.625	+/-0.470	0.385	+/-0.471	0.781	pCi/g		AAK	06/16/04	1316	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		260	+/-4.80	0.736	+/-11.1	1.52	pCi/g		AAK	06/15/04	2127	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63	U	2.04	+/-1.55	1.25	+/-1.55	2.56	pCi/g		AAK	06/18/04	1025	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

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Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-07
Sample ID: 114018007

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	71	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	34	

Notes:
The Qualifiers in this report are defined as follows :

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID:	3002-0000-187-C-1C-08	Project:	YANK00204
Sample ID:	114018008	Client ID:	YANK001
Matrix:	Concrete	Vol. Recv.:	
Collect Date:	26-MAY-04		
Receive Date:	02-JUN-04		
Collector:	Client		
Moisture:	9.74%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
High Rad Testing													
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	1.50	+/-1.99	1.55	+/-1.95	3.16	pCi/g		ADD	06/07/04	1553	338669	1
Americium-241	U	-0.101	+/-0.907	0.632	+/-0.888	1.28	pCi/g						
Bismuth-212	U	0.673	+/-3.91	2.66	+/-3.83	5.41	pCi/g						
Bismuth-214	U	-0.112	+/-0.709	0.553	+/-0.695	1.13	pCi/g						
Cesium-134		0.855	+/-0.707	0.413	+/-0.692	0.841	pCi/g						
Cesium-137		1.57	+/-0.702	0.304	+/-0.688	0.620	pCi/g						
Cobalt-60		98.6	+/-6.45	0.253	+/-6.32	0.528	pCi/g						
Europium-152		128	+/-8.89	0.571	+/-8.71	1.16	pCi/g						
Europium-154		9.16	+/-2.08	1.30	+/-2.04	2.66	pCi/g						
Europium-155	U	0.0703	+/-0.790	0.556	+/-0.774	1.13	pCi/g						
Lead-212	U	0.00	+/-0.400	0.309	+/-0.392	0.626	pCi/g						
	UI												
Lead-214	U	0.798	+/-0.723	0.419	+/-0.708	0.854	pCi/g						
Manganese-54	U	-0.189	+/-0.487	0.374	+/-0.477	0.761	pCi/g						
Niobium-94	U	-0.148	+/-0.371	0.287	+/-0.364	0.584	pCi/g						
Potassium-40	U	0.00	+/-4.14	1.89	+/-4.06	4.01	pCi/g						
	UI												
Radium-226	U	-0.112	+/-0.709	0.553	+/-0.695	1.13	pCi/g						
Silver-108m	U	-0.0634	+/-0.287	0.213	+/-0.281	0.434	pCi/g						
Thallium-208	U	0.227	+/-0.425	0.295	+/-0.416	0.601	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		4850	+/-60.3	3.58	+/-493	7.17	pCi/g		AAK	06/10/04	2330	338667	2
Laboratory Composite													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		0.974	+/-0.426	0.342	+/-0.426	0.694	pCi/g		AAK	06/15/04	0254	338668	4
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		218	+/-5.04	0.884	+/-9.89	1.82	pCi/g		AAK	06/15/04	2328	338665	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63	U	1.13	+/-0.744	0.599	+/-0.745	1.23	pCi/g		AAK	06/18/04	1127	341858	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	NXL1	06/07/04	1211	338661

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: PO# 002337-Pete Hollenbeck

Report Date: June 21, 2004

Client Sample ID: 3002-0000-187-C-1C-08
Sample ID: 114018008

Project: YANK00204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				NXL1	06/07/04	1009	338660			
GL-RAD-A-026	Laboratory sample composite				ADD	06/04/04	1722	338659			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	EPA EERF C-01 Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified
7	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,A1	65	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,A1	74	

Notes:
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Reviewed by

QUALITY CONTROL DATA

QC Summary

Report Date: June 21, 2004
Page 1 of 8

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338662										
QC1200637951 114018001 DUP										
Americium-241		0.289		0.224	pCi/g	25		(0% - 100%)	RDD	06/10/04 22:24
	Uncert:	+/-0.113		+/-0.109						
	TPU:	+/-0.117		+/-0.111						
Curium-242	U	0.00	U	0.0134	pCi/g	29		(0% - 100%)		
	Uncert:	+/-0.0242		+/-0.0263						
	TPU:	+/-0.0242		+/-0.0263						
Curium-243/244		0.0742		0.113	pCi/g	42		(0% - 100%)		
	Uncert:	+/-0.0614		+/-0.0738						
	TPU:	+/-0.0619		+/-0.0747						
QC1200637953 LCS										
Americium-241	12.1			12.4	pCi/g		103	(75%-125%)		06/11/04 08:44
	Uncert:			+/-1.19						
	TPU:			+/-1.96						
Curium-242			U	0.0603	pCi/g					
	Uncert:			+/-0.104						
	TPU:			+/-0.104						
Curium-243/244	15.6			15.1	pCi/g		97	(75%-125%)		
	Uncert:			+/-1.31						
	TPU:			+/-2.30						
QC1200637950 MB										
Americium-241			U	0.0583	pCi/g					06/10/04 22:24
	Uncert:			+/-0.0618						
	TPU:			+/-0.062						
Curium-242				0.0335	pCi/g					
	Uncert:			+/-0.0379						
	TPU:			+/-0.0381						
Curium-243/244			U	0.0314	pCi/g					
	Uncert:			+/-0.0472						
	TPU:			+/-0.0473						
QC1200637952 114018001 MS										
Americium-241	17.3	0.289		17.1	pCi/g		97	(75%-125%)		06/11/04 08:44
	Uncert:	+/-0.113		+/-1.75						
	TPU:	+/-0.117		+/-2.85						
Curium-242	U	0.00	U	0.0629	pCi/g					
	Uncert:	+/-0.0242		+/-0.142						
	TPU:	+/-0.0242		+/-0.142						
Curium-243/244	22.3	0.0742		23.8	pCi/g		106	(75%-125%)		
	Uncert:	+/-0.0614		+/-2.06						
	TPU:	+/-0.0619		+/-3.74						
Batch 338663										
QC1200637955 114018001 DUP										
Plutonium-238		0.165		0.146	pCi/g	12		(0% - 100%)	RDD	06/14/04 15:25

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338663										
	Uncert:	+/-0.0665		+/-0.0754						
	TPU:	+/-0.0676		+/-0.0767						
Plutonium-239/240		0.171		0.0769	pCi/g	76		(0% - 100%)		
	Uncert:	+/-0.0675		+/-0.0476						
	TPU:	+/-0.0687		+/-0.0482						
QC1200637957 LCS										
Plutonium-238			U	-0.101	pCi/g					06/11/04 08:44
	Uncert:			+/-0.233						
	TPU:			+/-0.234						
Plutonium-239/240	10.8			12.5	pCi/g		116			
	Uncert:			+/-1.49						
	TPU:			+/-2.12						
QC1200637954 MB										
Plutonium-238			U	8.890E-10	pCi/g					06/14/04 15:25
	Uncert:			+/-0.0292						
	TPU:			+/-0.0292						
Plutonium-239/240			U	8.890E-10	pCi/g					
	Uncert:			+/-0.0292						
	TPU:			+/-0.0292						
QC1200637956 114018001 MS										
Plutonium-238		0.165	U	0.182	pCi/g					06/11/04 08:44
	Uncert:	+/-0.0665		+/-0.222						
	TPU:	+/-0.0676		+/-0.223						
Plutonium-239/240	15.4	0.171		15.9	pCi/g		102			
	Uncert:	+/-0.0675		+/-1.65						
	TPU:	+/-0.0687		+/-2.40						
Batch 338664										
QC1200637959 114018001 DUP										
Plutonium-241	U	2.04	U	1.96	pCi/g	0		(0% - 100%)	RDD	06/14/04 07:52
	Uncert:	+/-3.46		+/-3.07						
	TPU:	+/-3.46		+/-3.08						
QC1200637961 LCS										
Plutonium-241	355			290	pCi/g		82	(75%-125%)		06/14/04 11:28
	Uncert:			+/-24.8						
	TPU:			+/-34.5						
QC1200637958 MB										
Plutonium-241			U	-0.595	pCi/g					06/13/04 23:26
	Uncert:			+/-4.17						
	TPU:			+/-4.17						
QC1200637960 114018001 MS										
Plutonium-241	656 U	2.04		611	pCi/g		93	(75%-125%)		06/14/04 10:57
	Uncert:	+/-3.46		+/-46.7						
	TPU:	+/-3.46		+/-70.7						
Batch 338665										
QC1200637965 114018001 DUP										
Iron-55		830		736	pCi/g	12		(0% - 20%)	AAK	06/16/04 03:29
	Uncert:	+/-9.09		+/-8.34						
	TPU:	+/-33.9		+/-30.0						
QC1200637967 LCS										

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338665										
Iron-55	14.4			11.9	pCi/g		83	(75%-125%)		
	Uncert:			+/-3.25						
	TPU:			+/-3.29						
QC1200637964 MB										
Iron-55			U	-3.47	pCi/g					06/16/04 01:28
	Uncert:			+/-1.32						
	TPU:			+/-1.33						
QC1200637966 114018001 MS										
Iron-55	53.8	830		810	pCi/g		-39 *	(75%-125%)		06/16/04 04:59
	Uncert:	+/-9.09		+/-18.3						
	TPU:	+/-33.9		+/-36.2						
Batch 338667										
QC1200637973 114018001 DUP										
Tritium		326		356	pCi/g	9		(0% - 20%)	AAK	06/11/04 00:31
	Uncert:	+/-16.5		+/-16.9						
	TPU:	+/-37.1		+/-39.9						
QC1200637975 LCS										
Tritium	32.5			40.4	pCi/g		124	(75%-125%)		06/11/04 01:33
	Uncert:			+/-6.91						
	TPU:			+/-7.98						
QC1200637972 MB										
Tritium			U	0.594	pCi/g					06/11/04 00:01
	Uncert:			+/-4.41						
	TPU:			+/-4.41						
QC1200637974 114018001 MS										
Tritium	32.0	326		417	pCi/g		283*	(75%-125%)		06/11/04 01:02
	Uncert:	+/-16.5		+/-18.3						
	TPU:	+/-37.1		+/-46.9						
Batch 338668										
QC1200637977 114018001 DUP										
Carbon-14		1600		2620	pCi/g	48*		(0% - 20%)	AAK	06/15/04 15:37
	Uncert:	+/-12.4		+/-20.2						
	TPU:	+/-28.6		+/-46.5						
QC1200637979 LCS										
Carbon-14	26.6			28.4	pCi/g		107	(75%-125%)		06/15/04 05:47
	Uncert:			+/-0.798						
	TPU:			+/-0.918						
QC1200637976 MB										
Carbon-14			U	0.0535	pCi/g					06/15/04 03:55
	Uncert:			+/-0.426						
	TPU:			+/-0.426						
QC1200637978 114018001 MS										
Carbon-14	26.5	1600		2480	pCi/g		3310*	(75%-125%)		06/15/04 05:03
	Uncert:	+/-12.4		+/-19.1						
	TPU:	+/-28.6		+/-44.1						
Batch 338669										
QC1200637981 114018001 DUP										
Actinium-228	U	-0.885	U	1.38	pCi/g	N/A		(0% - 100%)	ADD	06/10/04 12:27

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338669										
	Uncert:	+/-5.32		+/-4.27						
	TPU:	+/-5.21		+/-4.18						
Americium-241	U	1.02	U	1.17	pCi/g	14		(0% - 100%)		
	Uncert:	+/-3.23		+/-1.43						
	TPU:	+/-3.16		+/-1.40						
Bismuth-212	U	-2.78	U	2.43	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-9.94		+/-7.53						
	TPU:	+/-9.75		+/-7.38						
Bismuth-214	U	-0.0769	U	-0.0642	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-2.02		+/-1.53						
	TPU:	+/-1.98		+/-1.50						
Cesium-134		6.91		7.44	pCi/g	7		(0% - 100%)		
	Uncert:	+/-2.14		+/-1.96						
	TPU:	+/-2.10		+/-1.92						
Cesium-137		592		596	pCi/g	1		(0% - 20%)		
	Uncert:	+/-67.2		+/-76.2						
	TPU:	+/-65.9		+/-74.7						
Cobalt-60		2230		2220	pCi/g	0		(0% - 20%)		
	Uncert:	+/-174		+/-172						
	TPU:	+/-171		+/-169						
Europium-152		453		437	pCi/g	4		(0% - 20%)		
	Uncert:	+/-29.9		+/-29.4						
	TPU:	+/-29.3		+/-28.8						
Europium-154		55.9		52.3	pCi/g	7		(0% - 20%)		
	Uncert:	+/-7.54		+/-6.80						
	TPU:	+/-7.39		+/-6.67						
Europium-155	U	1.22	U	0.560	pCi/g	74		(0% - 100%)		
	Uncert:	+/-1.73		+/-1.41						
	TPU:	+/-1.69		+/-1.38						
Lead-212	U	0.299	U	-0.0147	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.04		+/-0.829						
	TPU:	+/-1.02		+/-0.813						
Lead-214	U	-1.31	U	-4.34	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.42		+/-1.24						
	TPU:	+/-1.40		+/-1.22						
Manganese-54		2.94		2.65	pCi/g	10		(0% - 100%)		
	Uncert:	+/-1.56		+/-1.26						
	TPU:	+/-1.53		+/-1.23						
Niobium-94	U	0.346	U	0.0649	pCi/g	137		(0% - 100%)		
	Uncert:	+/-0.954		+/-0.719						
	TPU:	+/-0.935		+/-0.705						
Potassium-40	UUI	0.00	UUI	0.00	pCi/g	88		(0% - 100%)		
	Uncert:	+/-14.5		+/-7.09						
	TPU:	+/-14.2		+/-6.95						
Radium-226	U	-0.0769	U	-0.0642	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-2.02		+/-1.53						
	TPU:	+/-1.98		+/-1.50						
Silver-108m	U	-0.0476	U	-0.284	pCi/g	N/A		(0% - 100%)		

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch 338669											
	Uncert:	+/-0.784		+/-0.636							
	TPU:	+/-0.768		+/-0.624							
Thallium-208	U	0.910	UUI	0.00	pCi/g	40*					
	Uncert:	+/-1.08		+/-0.833							
	TPU:	+/-1.06		+/-0.816							
QC1200637982 LCS											
Actinium-228			U	-2.63	pCi/g					06/07/04	18:50
	Uncert:			+/-3.79							
	TPU:			+/-3.72							
Americium-241	234			232	pCi/g		99	(75%-125%)			
	Uncert:			+/-17.5							
	TPU:			+/-17.1							
Bismuth-212			U	-3.79	pCi/g						
	Uncert:			+/-6.54							
	TPU:			+/-6.41							
Bismuth-214			U	-0.434	pCi/g						
	Uncert:			+/-1.43							
	TPU:			+/-1.40							
Cesium-134			U	0.0732	pCi/g						
	Uncert:			+/-0.936							
	TPU:			+/-0.918							
Cesium-137	92.5			95.2	pCi/g		103	(75%-125%)			
	Uncert:			+/-11.6							
	TPU:			+/-11.4							
Cobalt-60	144			145	pCi/g		101	(75%-125%)			
	Uncert:			+/-10.8							
	TPU:			+/-10.6							
Europium-152			U	-1.24	pCi/g						
	Uncert:			+/-1.82							
	TPU:			+/-1.79							
Europium-154			U	-1.5	pCi/g						
	Uncert:			+/-2.29							
	TPU:			+/-2.25							
Europium-155			U	-0.174	pCi/g						
	Uncert:			+/-1.50							
	TPU:			+/-1.47							
Lead-212			U	0.522	pCi/g						
	Uncert:			+/-0.831							
	TPU:			+/-0.814							
Lead-214			U	0.0977	pCi/g						
	Uncert:			+/-1.21							
	TPU:			+/-1.19							
Manganese-54			U	-0.304	pCi/g						
	Uncert:			+/-0.889							
	TPU:			+/-0.871							
Niobium-94			U	-0.153	pCi/g						
	Uncert:			+/-0.793							
	TPU:			+/-0.777							

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338669										
Potassium-40			U	1.10	pCi/g					
	Uncert:			+/-8.63						
	TPU:			+/-8.45						
Radium-226			U	-0.434	pCi/g			(75%-125%)		
	Uncert:			+/-1.43						
	TPU:			+/-1.40						
Silver-108m			U	-0.307	pCi/g					
	Uncert:			+/-0.682						
	TPU:			+/-0.669						
Thallium-208			U	-0.231	pCi/g					
	Uncert:			+/-0.743						
	TPU:			+/-0.728						
QC1200637980 MB										
Actinium-228			U	0.095	pCi/g					06/07/04 18:49
	Uncert:			+/-0.200						
	TPU:			+/-0.196						
Americium-241			U	-0.167	pCi/g					
	Uncert:			+/-0.351						
	TPU:			+/-0.344						
Bismuth-212			U	0.0283	pCi/g					
	Uncert:			+/-0.444						
	TPU:			+/-0.435						
Bismuth-214			U	0.0537	pCi/g					
	Uncert:			+/-0.0964						
	TPU:			+/-0.0945						
Cesium-134			U	-0.032	pCi/g					
	Uncert:			+/-0.0589						
	TPU:			+/-0.0577						
Cesium-137			U	-0.0341	pCi/g					
	Uncert:			+/-0.0562						
	TPU:			+/-0.0551						
Cobalt-60			U	-0.0196	pCi/g					
	Uncert:			+/-0.0708						
	TPU:			+/-0.0694						
Europium-152			U	0.0871	pCi/g					
	Uncert:			+/-0.130						
	TPU:			+/-0.128						
Europium-154			U	-0.124	pCi/g					
	Uncert:			+/-0.192						
	TPU:			+/-0.188						
Europium-155			U	0.0533	pCi/g					
	Uncert:			+/-0.116						
	TPU:			+/-0.114						
Lead-212			U	0.00208	pCi/g					
	Uncert:			+/-0.106						
	TPU:			+/-0.104						
Lead-214			U	-0.00087	pCi/g					
	Uncert:			+/-0.096						

QC Summary

Workorder: 114018

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 338669										
	TPU:			+/-0.0941						
Manganese-54			U	-0.0155	pCi/g					
	Uncert:			+/-0.0477						
	TPU:			+/-0.0468						
Niobium-94			U	0.0564	pCi/g					
	Uncert:			+/-0.048						
	TPU:			+/-0.0471						
Potassium-40			U	0.745	pCi/g					
	Uncert:			+/-0.684						
	TPU:			+/-0.670						
Radium-226			U	0.0537	pCi/g					
	Uncert:			+/-0.0964						
	TPU:			+/-0.0945						
Silver-108m			U	-0.0456	pCi/g					
	Uncert:			+/-0.0421						
	TPU:			+/-0.0413						
Thallium-208			U	0.0387	pCi/g					
	Uncert:			+/-0.0509						
	TPU:			+/-0.0499						
Batch 341858										
QC1200645632 114018001 DUP										
Nickel-63		791		748	pCi/g	6		(0% - 20%)	AAK	06/18/04 12:38
	Uncert:	+/-15.9		+/-14.9						
	TPU:	+/-32.4		+/-30.5						
QC1200645634 LCS										
Nickel-63	60.7			48.5	pCi/g		80	(75%-125%)		06/18/04 13:52
	Uncert:			+/-1.30						
	TPU:			+/-2.16						
QC1200645631 MB										
Nickel-63				1.42	pCi/g					06/18/04 12:28
	Uncert:			+/-0.669						
	TPU:			+/-0.671						
QC1200645633 114018001 MS										
Nickel-63	127	791		903	pCi/g		88	(75%-125%)		06/18/04 12:50
	Uncert:	+/-15.9		+/-18.0						
	TPU:	+/-32.4		+/-36.9						

Notes:
The Qualifiers in this report are defined as follows:

- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.

QC Summary

Workorder: **114018**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Attachment A
Core Bore Sampling Specifications

Sample Number #: 187	Date: 5/20/04	Project Contact:/ ext: John Grinley X3130	Job Supervisor / ext: John Grinley X3130
WPIR: 5000-00137-000	Location: Reactor Containment Building: Elevation -20'- 6"		
Job Description/Scope: Underslab sub-surface soil sampling			

1. SAMPLING REQUIREMENTS

1.1 Core Sample Requirements

- Ensure drill rig is connected to a ground fault protected circuit.
- Drill ten (ten) inches into floor.
- Place each core section into a double plastic bag.
- Identify core sample in accordance with SSWP number: BCY-SSWP-04-05-001.
- Check drill bit for contamination.

1.2 Sectioning Instructions

- Section cores in accordance with SSWP number: BCY-SSWP-04-05-001.

2. LABORATORY ANALYSIS REQUIREMENTS

- Analyze core wafers in accordance with SSWP number: BCY-SSWP-04-05-001.

3. STORAGE AND SHIPMENT REQUIREMENTS

- Store all samples in the EOF rad material storage area.

Signature/Approvals

Prepared by Pete Hollenbeck PH DATE 5/20/04

Job Supervisor John Grinley JG DATE 5/20/04

Rad. Eng./Chem. Env. Engineer [signature] DATE 5/20/04

CONNECTICUT YANKEE ATOMIC POWER COMPANY
SURVEY RECORD FORM

Surveyor Name: (Printed)	Surveyor Name: (Signature)	Location:	Date: 5-05-04	Time: 01:00	Log #:
MOISES BARWIS		CONTAINMENT INCORE SUMP	Area #: 3100	Map #: N/A	Rev. #: N/A

INCORE SUMP AREA
IS POSTED: NOTIFY HP PRIOR TO ENTRY
WITHIN A POSTED: TS LHRA, RM.

RM-14 BKGD ≈ 220 cpm

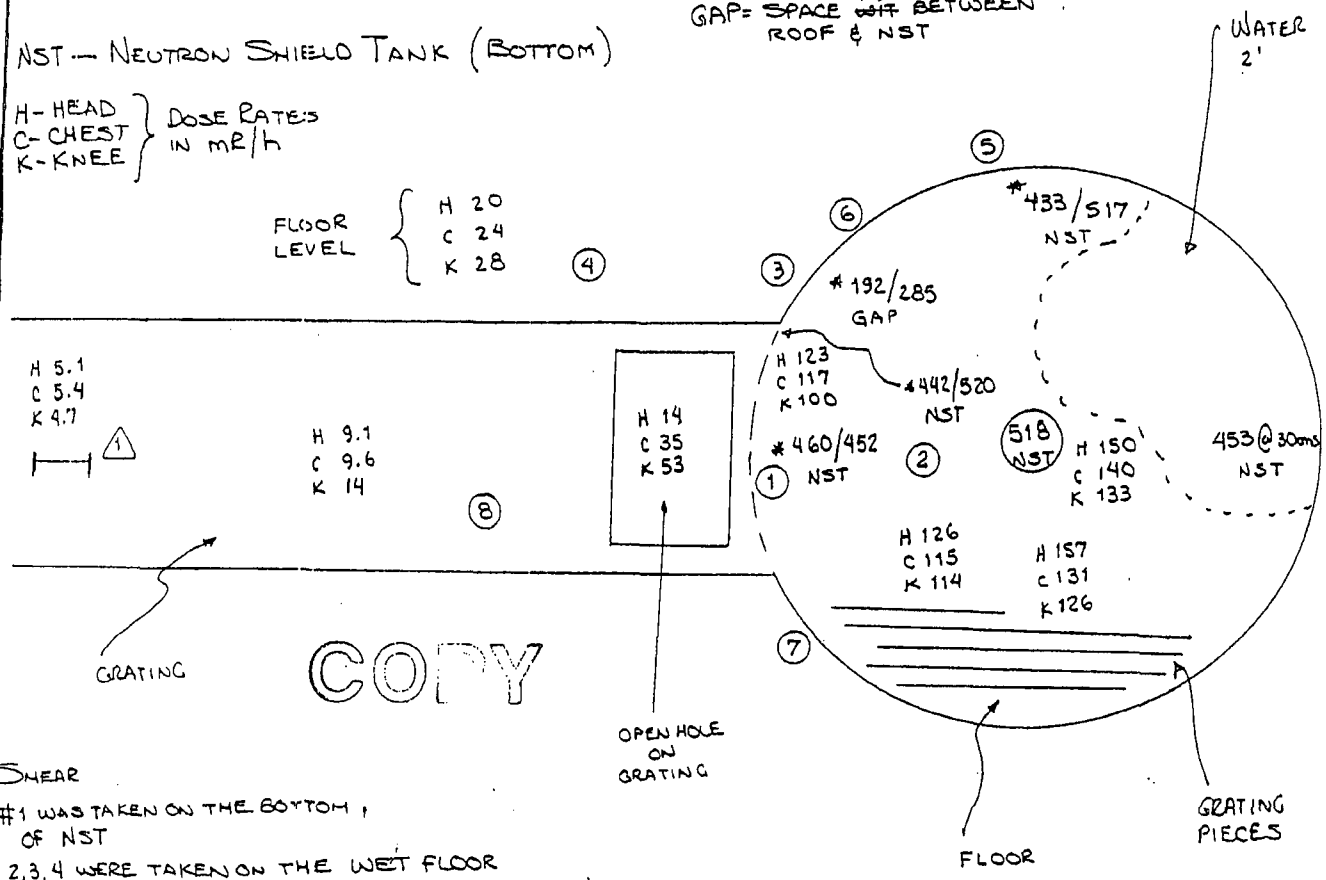
(# NST) DOSE RATE TAKEN ON THE CENTER (AIR)

GAP= SPACE ~~017~~ 05-04 BETWEEN ROOF & NST

NST — NEUTRON SHIELD TANK (BOTTOM)

H - HEAD
C - CHEST
K - KNEE
} DOSE RATES IN mR/h

FLOOR LEVEL { H 20, C 24, K 28 } (4)



COPY

SMEAR
#1 WAS TAKEN ON THE BOTTOM, OF NST
2,3,4 WERE TAKEN ON THE WET FLOOR
#5,6,7 WERE TAKEN ON THE WALLS (CONCRET)
#8 WAS TAKEN ON THE GRATING

DOSE RATES ON THE NST WERE TAKEN ON THE BOTTOM, THE TELEPOLE IS NO LONG ENOUGH TO TAKE DOSE RATES ABOVE. THE EDGE.

INSTRUMENTS USED

MODEL/SERIAL#	CAL DUE	PROBE/SERIAL#	CAL DUE
TELEPOLE 6600 005		N/A	N/A
RM-14 / 2163	5-11-04	HP-210T	N/A
L2200 / 151860	9-2-04	HP-210T	N/A
L2200 / 146534	6-29-04	43-2 / 171006	N/A

REASON FOR SURVEY

- [ ] ROUTINE 4114-1
- [x] RWP PRE-JOB SURVEY
- [x] OTHER N/A

AirSample Control #: Total DAC Fraction:

CONTAMINATION RESULTS (SMEARS) dpm/100cm²

βγ MDA= 367.37 α MDA= 12.52

SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha	SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha
1	3.5K	<MDA			
2	22K	13.02			
3	14K	<MDA			
4	12K	<MDA			
5	1.5K	<MDA			
6	1K	<MDA			
7	<1K	<MDA			
8	2K	<MDA			

Smear Continuation Sheet Used. [ ] YES [x] NO

NDA= No Detectable Activity

Legend:
Dose rates are gamma and are in mrem/hr unless otherwise noted.
All smears in Dpm/100cm² unless otherwise noted.
All LAS's in cpm/LAS unless otherwise noted.

- Large Area Swipe Location
- AirSample Location
- Smear Location
- Contact Exposure Rate
- General Area Exposure Rate
- Indicates Boundary
- STOP Step Off Pad
- RPR Respiratory Protection Required

ARA - Airborne Radioactivity Area
RA - Radiation Area
CA - Contaminated Area
HRA - High Radiation Area
LHRA - Locked High Radiation Area
RM - Radioactive Material(s)
HCA - High Contamination Area
HPA - Hot Particle Area
RCA - Radiologically Controlled Area

HP MANAGER OR DESIGNEE REVIEW: DATE:

Postings [ ] Other WITHIN
[x] RCA [x] RM [ ] CA [x] RA [ ] LHRA
[ ] Outside The RCA [ ] HCA [ ] HRA [ ] Spec 2

[ ] Contact HP Prior to Entering
[ ] Airborne Radioactivity Area
[ ] Respirator Protection Required

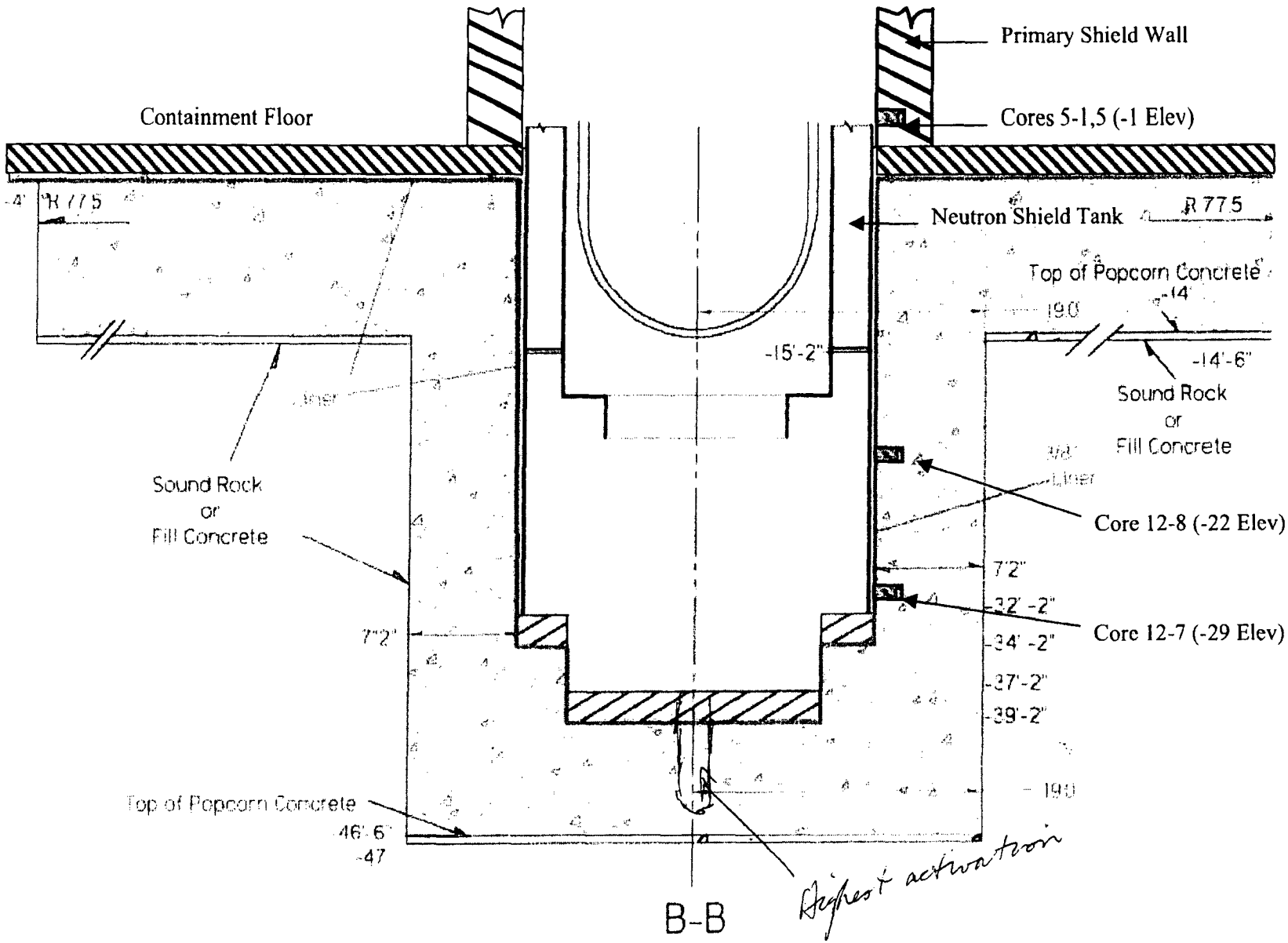


Figure 2 – Core Locations

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-Liner	Project:	YANK01304
Sample ID:	127994001	Client ID:	YANK001
Matrix:	SS	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	~~888800%~~ HGA 111910 NA		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.236	+/-0.313	0.177	+/-0.315	0.564	pCi/g		BJB1	01/15/05	1311	392219	1
Curium-242	U	-0.0212	+/-0.178	0.101	+/-0.178	0.441	pCi/g						
Curium-243/244	U	0.398	+/-0.450	0.307	+/-0.453	0.825	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.0796	+/-0.166	0.235	+/-0.166	0.655	pCi/g		AF1	01/18/05	0838	394891	2
Plutonium-239/240	U	0.0357	+/-0.142	0.111	+/-0.142	0.407	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	3.54	+/-14.3	12.0	+/-14.3	24.3	pCi/g		BJB1	01/17/05	2041	392221	4
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228	U	-0.42	+/-4.52	3.59	+/-4.43	7.56	pCi/g		MJH1	01/19/05	0920	393211	5
Americium-241	U	2.92	+/-3.59	2.40	+/-3.52	5.01	pCi/g						
Bismuth-212	U	2.27	+/-8.71	6.73	+/-8.54	14.2	pCi/g						
Bismuth-214	U	0.00	+/-4.68	1.49	+/-4.58	3.13	pCi/g						
	UI												
Cesium-134	U	0.250	+/-1.22	0.936	+/-1.19	1.98	pCi/g						
Cesium-137		12.6	+/-2.14	0.729	+/-2.10	1.55	pCi/g						
Cobalt-60		135	+/-9.60	0.672	+/-9.40	1.50	pCi/g						
Europium-152	U	-0.488	+/-2.17	1.64	+/-2.13	3.46	pCi/g						
Europium-154	U	1.91	+/-1.48	1.74	+/-1.45	3.89	pCi/g						
Europium-155	U	1.15	+/-2.17	1.59	+/-2.13	3.32	pCi/g						
Lead-212	U	1.84	+/-2.45	1.04	+/-2.40	2.15	pCi/g						
Lead-214	U	0.552	+/-1.56	1.22	+/-1.53	2.57	pCi/g						
Manganese-54	U	0.979	+/-1.21	0.970	+/-1.19	2.05	pCi/g						
Niobium-94	U	-0.129	+/-0.901	0.676	+/-0.883	1.44	pCi/g						
Potassium-40	U	2.18	+/-7.14	5.90	+/-6.99	13.3	pCi/g						
Radium-226	U	0.00	+/-4.68	1.49	+/-4.58	3.13	pCi/g						
	UI												
Silver-108m	U	-0.0257	+/-0.767	0.585	+/-0.752	1.24	pCi/g						
Thallium-208	U	1.05	+/-0.927	0.764	+/-0.909	1.61	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		1.75	+/-0.154	0.0812	+/-0.510	0.168	pCi/g		JMB1	01/14/05	2044	392498	6
Rad Liquid Scintillation Analysis													
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55		2680	+/-110	66.9	+/-148	134	pCi/g		DAJ1	01/19/05	0920	395047	7

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-Liner
Sample ID: 127994001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Liquid Scintillation Analysis											
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)											
Nickel-63		84.7	+/-6.37	4.18	+/-6.97	8.50	pCi/g		DAJ1 01/15/05	0704	392560 9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)											
Technetium-99	U	1.04	+/-0.825	0.679	+/-0.826	1.38	pCi/g		EGD1 01/17/05	1032	393090 10
Solid Preparation											
Percent Leach											

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	DOE RESL Fe-1, Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	Client Requested Procedure

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	86	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	82	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	50	
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 (C	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	38	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,AI	82	

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-Liner
Sample ID: 127994001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-3C-01	Project:	YANK01304
Sample ID:	127994002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.21%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)												
Americium-241	U	0.0191	+/-0.0205	0.0088	+/-0.0206	0.0297	pCi/g		BJB1 01/10/05	1959	390931	1
Curium-242	U	0.00498	+/-0.00976	0.00	+/-0.00978	0.0135	pCi/g					
Curium-243/244	U	0.0025	+/-0.0153	0.0125	+/-0.0153	0.037	pCi/g					
Alphaspec Pu, Solid-TRU2,ALL2 (CT)												
Plutonium-238	U	-0.00556	+/-0.00771	0.0187	+/-0.00773	0.0687	pCi/g		BJB1 01/07/05	1604	390932	2
Plutonium-239/240	U	0.0264	+/-0.0404	0.0229	+/-0.0405	0.0771	pCi/g					
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)												
Plutonium-241	U	1.86	+/-2.43	2.00	+/-2.44	4.09	pCi/g		BJB1 01/11/05	0405	390933	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228	U	0.491	+/-0.331	0.245	+/-0.324	0.496	pCi/g		AKB 01/05/05	1133	391303	4
Americium-241	U	0.0047	+/-0.152	0.141	+/-0.149	0.285	pCi/g					
Bismuth-212	U	-1.22	+/-0.526	0.424	+/-0.516	0.860	pCi/g					
Bismuth-214		0.573	+/-0.170	0.0873	+/-0.167	0.177	pCi/g					
Cesium-134	U	0.0891	+/-0.0754	0.0652	+/-0.0739	0.132	pCi/g					
Cesium-137	U	0.048	+/-0.0613	0.0538	+/-0.0601	0.109	pCi/g					
Cobalt-60		18.0	+/-1.16	0.0318	+/-1.14	0.0662	pCi/g					
Europium-152		20.1	+/-1.45	0.108	+/-1.42	0.220	pCi/g					
Europium-154		1.78	+/-0.287	0.175	+/-0.282	0.357	pCi/g					
Europium-155	U	0.105	+/-0.144	0.129	+/-0.141	0.261	pCi/g					
Lead-212		0.402	+/-0.0943	0.0693	+/-0.0925	0.140	pCi/g					
Lead-214		0.665	+/-0.143	0.0784	+/-0.140	0.159	pCi/g					
Manganese-54	U	-0.0312	+/-0.0699	0.0585	+/-0.0685	0.119	pCi/g					
Niobium-94	U	0.0203	+/-0.0539	0.0467	+/-0.0528	0.0948	pCi/g					
Potassium-40		9.07	+/-1.12	0.225	+/-1.10	0.475	pCi/g					
Radium-226		0.573	+/-0.170	0.0873	+/-0.167	0.177	pCi/g					
Silver-108m	U	-0.00899	+/-0.047	0.040	+/-0.0461	0.0811	pCi/g					
Thallium-208	U	0.0554	+/-0.0764	0.0514	+/-0.0748	0.104	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.021	+/-0.00629	0.00487	+/-0.00987	0.00993	pCi/g		JMB1 01/09/05	2026	390998	5
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		414	+/-8.27	1.20	+/-26.5	2.40	pCi/g		ATH1 12/31/04	0159	391081	6
Liquid Scint C14, Solid-HTD2,ALL2 (CT)												

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-3C-01
Sample ID: 127994002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Liquid Scintillation Analysis											
Liquid Scint C14, Solid-HTD2,ALL2 (CT)											
Carbon-14	U	-0.0426	+/-0.348	0.293	+/-0.348	0.601	pCi/g		LAG1 12/30/04	1455	388611 7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)											
Iron-55		15.7	+/-1.79	1.19	+/-1.93	2.40	pCi/g		DAJ1 01/08/05	1048	391075 8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)											
Nickel-63	U	-0.013	+/-0.598	0.502	+/-0.598	1.02	pCi/g		DAJ1 01/06/05	2018	391076 9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)											
Technetium-99	U	0.536	+/-0.349	0.278	+/-0.350	0.571	pCi/g		EGD1 01/09/05	1323	391077 10
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	87	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	90	(15%-125%)

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-3C-01
Sample ID: 127994002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			76						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 (C			64		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,AI			31						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,AI			57						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,AI			84						

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Heather J. Crowe
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-3C-02	Project:	YANK01304
Sample ID:	127994003	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	8.23%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00918	+/-0.0127	0.00	+/-0.0128	0.0124	pCi/g		BJB1	01/10/05	1959	390931	1
Curium-242	U	0.00	+/-0.010	0.00	+/-0.010	0.0139	pCi/g						
Curium-243/244	U	-0.00202	+/-0.0129	0.0128	+/-0.0129	0.0381	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.0363	+/-0.0444	0.0219	+/-0.0446	0.0737	pCi/g		BJB1	01/07/05	1604	390932	2
Plutonium-239/240	U	0.0168	+/-0.0316	0.0178	+/-0.0316	0.0657	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	-0.222	+/-2.03	1.71	+/-2.03	3.49	pCi/g		BJB1	01/11/05	0507	390933	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.508	+/-0.266	0.139	+/-0.261	0.286	pCi/g		AKB	01/05/05	1134	391303	4
Americium-241	U	-0.0477	+/-0.197	0.179	+/-0.193	0.365	pCi/g						
Bismuth-212	U	0.294	+/-0.401	0.244	+/-0.393	0.505	pCi/g						
Bismuth-214		0.582	+/-0.170	0.0554	+/-0.166	0.114	pCi/g						
Cesium-134	U	0.046	+/-0.0481	0.041	+/-0.0471	0.0844	pCi/g						
Cesium-137	U	0.0405	+/-0.0664	0.0323	+/-0.0651	0.0665	pCi/g						
Cobalt-60		5.49	+/-0.472	0.0245	+/-0.462	0.0522	pCi/g						
Europium-152		7.45	+/-0.641	0.073	+/-0.628	0.150	pCi/g						
Europium-154		0.489	+/-0.197	0.117	+/-0.193	0.243	pCi/g						
Europium-155	U	0.149	+/-0.149	0.0904	+/-0.146	0.184	pCi/g						
Lead-212		0.549	+/-0.0905	0.0438	+/-0.0887	0.0895	pCi/g						
Lead-214		0.654	+/-0.135	0.0516	+/-0.133	0.106	pCi/g						
Manganese-54	U	0.0395	+/-0.0436	0.037	+/-0.0427	0.0761	pCi/g						
Niobium-94	U	0.020	+/-0.0343	0.0293	+/-0.0336	0.0603	pCi/g						
Potassium-40		8.38	+/-1.06	0.159	+/-1.04	0.350	pCi/g						
Radium-226		0.582	+/-0.170	0.0554	+/-0.166	0.114	pCi/g						
Silver-108m	U	0.000413	+/-0.0286	0.0249	+/-0.0281	0.0513	pCi/g						
Thallium-208		0.188	+/-0.0463	0.0294	+/-0.0454	0.0605	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	0.00458	+/-0.00575	0.00473	+/-0.006	0.00965	pCi/g		JMB1	01/09/05	2026	390998	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		172	+/-4.61	1.02	+/-11.6	2.04	pCi/g		ATH1	12/31/04	0230	391081	6
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-3C-02
Sample ID: 127994003
Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	0.0801	+/-0.345	0.287	+/-0.345	0.590	pCi/g		LAG1	12/30/04	1527	388611	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	1.90	+/-1.40	1.04	+/-1.41	2.11	pCi/g		DAJ1	01/09/05	0314	391075	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.0962	+/-0.660	0.556	+/-0.660	1.13	pCi/g		DAJ1	01/06/05	2121	391076	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.371	+/-0.334	0.269	+/-0.334	0.555	pCi/g		EGD1	01/09/05	1355	391077	10
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	75	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	90	(15%-125%)

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-3C-02
Sample ID: 127994003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			92						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 (C			61		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			29						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			52						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,Al			86						

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- h Sample preparation or preservation holding time exceeded.

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Heather D Cole

Reviewed by

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-3C-03	Project:	YANK01304
Sample ID:	127994004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.46%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.384	+/-0.180	0.0911	+/-0.177	0.187	pCi/g		AKB	01/05/05	1134	391303	1
Americium-241	U	-0.00999	+/-0.108	0.0965	+/-0.105	0.197	pCi/g						
Bismuth-212		0.446	+/-0.281	0.152	+/-0.275	0.313	pCi/g						
Bismuth-214		0.913	+/-0.124	0.0371	+/-0.122	0.076	pCi/g						
Cesium-134	U	0.0357	+/-0.0291	0.0258	+/-0.0285	0.0528	pCi/g						
Cesium-137	U	0.0179	+/-0.0226	0.0212	+/-0.0221	0.0435	pCi/g						
Cobalt-60		4.91	+/-0.329	0.0145	+/-0.323	0.0307	pCi/g						
Europium-152		3.29	+/-0.269	0.052	+/-0.264	0.106	pCi/g						
Europium-154	UI	0.309	+/-0.123	0.0708	+/-0.120	0.146	pCi/g						
Europium-155	U	0.0461	+/-0.0732	0.0646	+/-0.0717	0.131	pCi/g						
Lead-212		0.372	+/-0.0617	0.0311	+/-0.0605	0.0634	pCi/g						
Lead-214		1.11	+/-0.139	0.0345	+/-0.136	0.0707	pCi/g						
Manganese-54	U	-0.00604	+/-0.0264	0.0221	+/-0.0259	0.0454	pCi/g						
Niobium-94	U	0.00349	+/-0.0214	0.0184	+/-0.021	0.0379	pCi/g						
Potassium-40		8.50	+/-0.809	0.116	+/-0.793	0.249	pCi/g						
Radium-226		0.913	+/-0.124	0.0371	+/-0.122	0.076	pCi/g						
Silver-108m	U	0.0051	+/-0.0197	0.0168	+/-0.0193	0.0345	pCi/g						
Thallium-208		0.119	+/-0.0416	0.0203	+/-0.0408	0.0417	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		157	+/-4.42	1.02	+/-10.7	2.04	pCi/g		ATH1	12/31/04	0302	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.121	+/-1.48	1.11	+/-1.48	2.25	pCi/g		DAJ1	01/09/05	0417	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.117	+/-0.703	0.588	+/-0.703	1.20	pCi/g		DAJ1	01/06/05	2222	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-3C-03
Sample ID: 127994004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,A1	31	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,A1	52	

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- UI Uncertain identification for gamma spectroscopy.
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-01	Project:	YANK01304
Sample ID:	127994005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.17%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.546	+/-0.166	0.0827	+/-0.163	0.174	pCi/g		AKB 01/05/05	1203	391303 1
Americium-241	U	0.0373	+/-0.124	0.0879	+/-0.121	0.180	pCi/g				
Bismuth-212	U	0.350	+/-0.226	0.187	+/-0.222	0.391	pCi/g				
Bismuth-214		1.08	+/-0.149	0.0376	+/-0.146	0.0786	pCi/g				
Cesium-134	U	0.00792	+/-0.0296	0.0252	+/-0.029	0.0529	pCi/g				
Cesium-137		0.188	+/-0.0532	0.0225	+/-0.0521	0.047	pCi/g				
Cobalt-60		1.64	+/-0.131	0.0168	+/-0.128	0.0368	pCi/g				
Europium-152		1.58	+/-0.175	0.0593	+/-0.172	0.123	pCi/g				
Europium-154	U UI	0.00	+/-0.0909	0.0674	+/-0.0891	0.144	pCi/g				
Europium-155	U	0.0509	+/-0.0641	0.0603	+/-0.0628	0.124	pCi/g				
Lead-212		0.468	+/-0.0688	0.0301	+/-0.0675	0.062	pCi/g				
Lead-214		1.19	+/-0.147	0.0367	+/-0.144	0.0761	pCi/g				
Manganese-54	U	-0.00295	+/-0.0287	0.0238	+/-0.0282	0.0499	pCi/g				
Niobium-94	U	0.00948	+/-0.0235	0.0204	+/-0.023	0.0426	pCi/g				
Potassium-40		8.14	+/-0.907	0.156	+/-0.889	0.344	pCi/g				
Radium-226		1.08	+/-0.149	0.0376	+/-0.146	0.0786	pCi/g				
Silver-108m	U	0.0198	+/-0.0227	0.0196	+/-0.0223	0.0407	pCi/g				
Thallium-208		0.171	+/-0.0496	0.0214	+/-0.0486	0.0447	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		78.6	+/-3.25	1.02	+/-5.86	2.04	pCi/g		ATH1 12/31/04	0334	391081 2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)											
Iron-55	U	0.514	+/-1.92	1.48	+/-1.92	3.01	pCi/g		DAJ1 01/09/05	0520	391075 3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)											
Nickel-63	U	0.200	+/-0.578	0.481	+/-0.578	0.981	pCi/g		DAJ1 01/06/05	2324	391076 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-01
Sample ID: 127994005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							390914			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	20	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	63	

Notes:
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-02	Project:	YANK01304
Sample ID:	127994006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.86%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.417	+/-0.170	0.0743	+/-0.166	0.159	pCi/g		AKB	01/05/05	1301	391303	1
Americium-241	U	0.0333	+/-0.137	0.127	+/-0.134	0.263	pCi/g						
Bismuth-212	U	0.300	+/-0.197	0.181	+/-0.193	0.381	pCi/g						
Bismuth-214		0.612	+/-0.117	0.0331	+/-0.115	0.0704	pCi/g						
Cesium-134	U	0.0418	+/-0.027	0.0249	+/-0.0264	0.0527	pCi/g						
Cesium-137		0.191	+/-0.0455	0.0201	+/-0.0445	0.0427	pCi/g						
Cobalt-60		0.669	+/-0.0885	0.0159	+/-0.0867	0.0357	pCi/g						
Europium-152		0.585	+/-0.147	0.0611	+/-0.144	0.127	pCi/g						
Europium-154	U	0.0461	+/-0.0587	0.0539	+/-0.0576	0.118	pCi/g						
Europium-155	U	-0.000379	+/-0.0706	0.0629	+/-0.0692	0.130	pCi/g						
Lead-212		0.409	+/-0.088	0.0363	+/-0.0862	0.0748	pCi/g						
Lead-214		0.721	+/-0.137	0.038	+/-0.135	0.0795	pCi/g						
Manganese-54	U	0.00122	+/-0.0243	0.0213	+/-0.0238	0.0452	pCi/g						
Niobium-94	U	0.0112	+/-0.0199	0.0175	+/-0.0195	0.0371	pCi/g						
Potassium-40		7.81	+/-0.950	0.157	+/-0.931	0.353	pCi/g						
Radium-226		0.612	+/-0.117	0.0331	+/-0.115	0.0704	pCi/g						
Silver-108m	U	-0.00216	+/-0.0191	0.0165	+/-0.0187	0.0349	pCi/g						
Thallium-208		0.134	+/-0.0491	0.0184	+/-0.0481	0.039	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		13.0	+/-1.75	1.04	+/-1.93	2.07	pCi/g		ATH1	12/31/04	0406	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.0759	+/-1.51	1.12	+/-1.51	2.27	pCi/g		DAJ1	01/09/05	0622	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.296	+/-0.536	0.444	+/-0.536	0.905	pCi/g		DAJ1	01/07/05	0026	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-02
Sample ID: 127994006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	36	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	67	

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-03	Project:	YANK01304
Sample ID:	127994007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.06%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.494	+/-0.124	0.0468	+/-0.121	0.0993	pCi/g		AKB 01/05/05	1301	391303 1
Americium-241	U	0.00834	+/-0.0578	0.0485	+/-0.0566	0.0999	pCi/g				
Bismuth-212		0.504	+/-0.193	0.102	+/-0.189	0.215	pCi/g				
Bismuth-214		0.597	+/-0.102	0.0232	+/-0.0997	0.0488	pCi/g				
Cesium-134	U	0.0225	+/-0.018	0.0162	+/-0.0176	0.034	pCi/g				
Cesium-137		0.0888	+/-0.0268	0.0157	+/-0.0263	0.0329	pCi/g				
Cobalt-60		0.315	+/-0.0531	0.0142	+/-0.0521	0.0306	pCi/g				
Europium-152		0.278	+/-0.069	0.0384	+/-0.0676	0.0798	pCi/g				
Europium-154	U	-0.0114	+/-0.0562	0.0392	+/-0.0551	0.0841	pCi/g				
Europium-155	U	0.0126	+/-0.0462	0.0415	+/-0.0453	0.0856	pCi/g				
Lead-212		0.462	+/-0.0568	0.0212	+/-0.0557	0.0439	pCi/g				
Lead-214		0.761	+/-0.0962	0.0257	+/-0.0943	0.0536	pCi/g				
Manganese-54	U	0.00776	+/-0.0181	0.0136	+/-0.0177	0.0288	pCi/g				
Niobium-94	U	0.00416	+/-0.0137	0.0118	+/-0.0134	0.0249	pCi/g				
Potassium-40		8.55	+/-0.853	0.117	+/-0.836	0.255	pCi/g				
Radium-226		0.597	+/-0.102	0.0232	+/-0.0997	0.0488	pCi/g				
Silver-108m	U	-0.00235	+/-0.013	0.0108	+/-0.0127	0.0227	pCi/g				
Thallium-208		0.121	+/-0.0346	0.0131	+/-0.0339	0.0276	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		19.9	+/-2.00	1.06	+/-2.37	2.13	pCi/g		ATH1 12/31/04	0438	391081 2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)											
Iron-55	U	0.588	+/-1.01	0.703	+/-1.01	1.42	pCi/g		DAJ1 01/09/05	0725	391075 3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)											
Nickel-63	U	0.0808	+/-0.486	0.406	+/-0.486	0.828	pCi/g		DAJ1 01/07/05	0128	391076 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-03
Sample ID: 127994007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	78	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	76	

Notes:
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- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Heather G Crow
Reviewed by

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-04	Project:	YANK01304
Sample ID:	127994008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	6.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.503	+/-0.202	0.080	+/-0.198	0.174	pCi/g		AKB	01/05/05	1302	391303	1
Americium-241	U	0.00324	+/-0.0532	0.0496	+/-0.0521	0.102	pCi/g						
Bismuth-212		0.465	+/-0.260	0.157	+/-0.255	0.341	pCi/g						
Bismuth-214		0.474	+/-0.122	0.0395	+/-0.120	0.0846	pCi/g						
Cesium-134	U UI	0.00	+/-0.0462	0.0306	+/-0.0453	0.0652	pCi/g						
Cesium-137	U	0.0488	+/-0.0577	0.024	+/-0.0566	0.0514	pCi/g						
Cobalt-60		0.256	+/-0.0605	0.0202	+/-0.0593	0.0457	pCi/g						
Europium-152	U	0.0967	+/-0.104	0.0547	+/-0.102	0.115	pCi/g						
Europium-154	U	-0.00466	+/-0.0755	0.0626	+/-0.074	0.139	pCi/g						
Europium-155	U	0.0448	+/-0.0753	0.0592	+/-0.0738	0.122	pCi/g						
Lead-212		0.457	+/-0.0726	0.0332	+/-0.0712	0.0689	pCi/g						
Lead-214		0.533	+/-0.111	0.040	+/-0.108	0.0842	pCi/g						
Manganese-54	U	0.0164	+/-0.0444	0.0204	+/-0.0436	0.0445	pCi/g						
Niobium-94	U	0.0213	+/-0.0257	0.0231	+/-0.0252	0.0491	pCi/g						
Potassium-40		6.05	+/-1.14	0.182	+/-1.11	0.417	pCi/g						
Radium-226		0.474	+/-0.122	0.0395	+/-0.120	0.0846	pCi/g						
Silver-108m	U	0.00177	+/-0.022	0.0193	+/-0.0215	0.041	pCi/g						
Thallium-208		0.144	+/-0.0424	0.0225	+/-0.0415	0.048	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		3.64	+/-1.45	1.08	+/-1.47	2.16	pCi/g		ATH1	12/31/04	0510	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.664	+/-1.29	0.957	+/-1.29	1.94	pCi/g		DAJ1	01/12/05	0852	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.212	+/-0.625	0.521	+/-0.626	1.06	pCi/g		DAJ1	01/07/05	0313	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-04
Sample ID: 127994008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							390914			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	39	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	59	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-05	Project:	YANK01304
Sample ID:	127994009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	7.66%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.460	+/-0.167	0.057	+/-0.164	0.125	pCi/g		AKB 01/05/05	1320	391303 1
Americium-241	U	-0.0329	+/-0.0838	0.0687	+/-0.0821	0.143	pCi/g				
Bismuth-212		0.411	+/-0.315	0.120	+/-0.309	0.260	pCi/g				
Bismuth-214		0.688	+/-0.115	0.0292	+/-0.112	0.0627	pCi/g				
Cesium-134	U UI	0.00	+/-0.0243	0.0226	+/-0.0238	0.0482	pCi/g				
Cesium-137		0.129	+/-0.0349	0.0153	+/-0.0342	0.0331	pCi/g				
Cobalt-60		0.205	+/-0.051	0.0165	+/-0.050	0.0371	pCi/g				
Europium-152	U	0.0255	+/-0.0541	0.0468	+/-0.053	0.0983	pCi/g				
Europium-154	U	0.00654	+/-0.0578	0.0474	+/-0.0566	0.106	pCi/g				
Europium-155	U	0.0396	+/-0.0635	0.048	+/-0.0622	0.0996	pCi/g				
Lead-212		0.502	+/-0.0695	0.0246	+/-0.0681	0.0515	pCi/g				
Lead-214		0.674	+/-0.101	0.0299	+/-0.0988	0.0632	pCi/g				
Manganese-54	U	0.00316	+/-0.0199	0.0169	+/-0.0195	0.0366	pCi/g				
Niobium-94	U	-0.00163	+/-0.0177	0.0149	+/-0.0174	0.0322	pCi/g				
Potassium-40		7.89	+/-0.989	0.167	+/-0.969	0.375	pCi/g				
Radium-226		0.688	+/-0.115	0.0292	+/-0.112	0.0627	pCi/g				
Silver-108m	U	0.00412	+/-0.0178	0.0149	+/-0.0174	0.0317	pCi/g				
Thallium-208		0.202	+/-0.0466	0.0142	+/-0.0457	0.0307	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		2.97	+/-1.41	1.07	+/-1.42	2.14	pCi/g		ATH1 12/31/04	0542	391081 2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)											
Iron-55	U	0.494	+/-0.911	0.633	+/-0.911	1.28	pCi/g		DAJ1 01/12/05	0955	391075 3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)											
Nickel-63	U	-0.0181	+/-0.499	0.419	+/-0.499	0.855	pCi/g		DAJ1 01/07/05	0415	391076 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-05
Sample ID: 127994009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							390914			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	80	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	72	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-4C-06	Project:	YANK01304
Sample ID:	127994010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	4.83%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.334	+/-0.172	0.0812	+/-0.169	0.177	pCi/g		AKB 01/05/05	1321	391303	1
Americium-241	U	-0.072	+/-0.139	0.105	+/-0.136	0.222	pCi/g					
Bismuth-212		0.376	+/-0.308	0.145	+/-0.301	0.319	pCi/g					
Bismuth-214		0.575	+/-0.116	0.0344	+/-0.113	0.0749	pCi/g					
Cesium-134	U	0.00957	+/-0.0256	0.0223	+/-0.025	0.0488	pCi/g					
Cesium-137		0.118	+/-0.0474	0.021	+/-0.0464	0.0456	pCi/g					
Cobalt-60		0.221	+/-0.0637	0.0201	+/-0.0625	0.0459	pCi/g					
Europium-152	U	-0.017	+/-0.0577	0.0472	+/-0.0566	0.102	pCi/g					
Europium-154	U	-0.00574	+/-0.0637	0.0526	+/-0.0624	0.121	pCi/g					
Europium-155	U	0.0269	+/-0.0632	0.0596	+/-0.0619	0.125	pCi/g					
Lead-212		0.419	+/-0.0697	0.0326	+/-0.0683	0.0685	pCi/g					
Lead-214		0.722	+/-0.125	0.037	+/-0.122	0.0791	pCi/g					
Manganese-54	U	0.0141	+/-0.0236	0.021	+/-0.0232	0.0459	pCi/g					
Niobium-94	U	-0.0113	+/-0.0208	0.0165	+/-0.0203	0.0361	pCi/g					
Potassium-40		7.94	+/-1.09	0.132	+/-1.07	0.322	pCi/g					
Radium-226		0.575	+/-0.116	0.0344	+/-0.113	0.0749	pCi/g					
Silver-108m	U	0.000252	+/-0.018	0.0159	+/-0.0176	0.0345	pCi/g					
Thallium-208		0.149	+/-0.0497	0.0196	+/-0.0487	0.0424	pCi/g					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		2.44	+/-1.38	1.07	+/-1.39	2.13	pCi/g		ATH1 12/31/04	0614	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)												
Iron-55	U	-0.725	+/-1.53	1.17	+/-1.53	2.38	pCi/g		DAJ1 01/09/05	1033	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)												
Nickel-63	U	-0.256	+/-0.483	0.411	+/-0.483	0.837	pCi/g		DAJ1 01/07/05	0517	391076	4
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-4C-06
Sample ID: 127994010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	27	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	70	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-01	Project:	YANK01304
Sample ID:	127994011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	7.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.546	+/-0.182	0.0793	+/-0.178	0.173	pCi/g		AKB	01/05/05	1410	391303	1
Americium-241	U	0.0349	+/-0.112	0.105	+/-0.110	0.219	pCi/g						
Bismuth-212		0.441	+/-0.286	0.160	+/-0.280	0.349	pCi/g						
Bismuth-214		0.626	+/-0.123	0.0407	+/-0.120	0.0877	pCi/g						
Cesium-134	U UI	0.00	+/-0.0434	0.0257	+/-0.0425	0.0557	pCi/g						
Cesium-137		0.227	+/-0.0558	0.0241	+/-0.0547	0.0519	pCi/g						
Cobalt-60		0.133	+/-0.0446	0.0192	+/-0.0437	0.0439	pCi/g						
Europium-152	U	0.0506	+/-0.0601	0.0582	+/-0.0589	0.124	pCi/g						
Europium-154	U	-0.0324	+/-0.0734	0.0582	+/-0.0719	0.131	pCi/g						
Europium-155	U	0.0207	+/-0.0768	0.0693	+/-0.0753	0.145	pCi/g						
Lead-212		0.525	+/-0.104	0.0477	+/-0.102	0.0989	pCi/g						
Lead-214		0.709	+/-0.135	0.0399	+/-0.132	0.0851	pCi/g						
Manganese-54	U	0.00713	+/-0.0287	0.0249	+/-0.0281	0.0538	pCi/g						
Niobium-94	U	0.0148	+/-0.0202	0.0188	+/-0.0198	0.0408	pCi/g						
Potassium-40		8.29	+/-1.18	0.187	+/-1.16	0.428	pCi/g						
Radium-226		0.626	+/-0.123	0.0407	+/-0.120	0.0877	pCi/g						
Silver-108m	U	0.0113	+/-0.0247	0.0219	+/-0.0242	0.0466	pCi/g						
Thallium-208		0.197	+/-0.0581	0.0209	+/-0.057	0.0452	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.35	+/-1.34	1.08	+/-1.35	2.15	pCi/g		ATH1	12/31/04	0646	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.2	+/-1.18	0.858	+/-1.18	1.74	pCi/g		DAJ1	01/09/05	1136	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.194	+/-0.662	0.559	+/-0.662	1.14	pCi/g		DAJ1	01/07/05	0618	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-01
Sample ID: 127994011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							390914			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	53	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	54	

Notes:
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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-02	Project:	YANK01304
Sample ID:	127994012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	2.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.397	+/-0.171	0.0546	+/-0.168	0.122	pCi/g		AKB 01/05/05	1411	391303	1
Americium-241	U	-0.0597	+/-0.153	0.0969	+/-0.150	0.203	pCi/g					
Bismuth-212		0.440	+/-0.299	0.125	+/-0.293	0.274	pCi/g					
Bismuth-214		0.628	+/-0.116	0.0285	+/-0.113	0.0624	pCi/g					
Cesium-134	U	0.00684	+/-0.024	0.0205	+/-0.0235	0.0448	pCi/g					
Cesium-137		0.0733	+/-0.0386	0.0186	+/-0.0378	0.0403	pCi/g					
Cobalt-60	U	0.0169	+/-0.0238	0.0219	+/-0.0233	0.049	pCi/g					
Europium-152	U	0.0212	+/-0.0503	0.0462	+/-0.0493	0.0985	pCi/g					
Europium-154	U	-0.00662	+/-0.085	0.0606	+/-0.0833	0.135	pCi/g					
Europium-155	U	0.0122	+/-0.0547	0.050	+/-0.0537	0.105	pCi/g					
Lead-212		0.373	+/-0.0624	0.0318	+/-0.0611	0.0664	pCi/g					
Lead-214		0.715	+/-0.110	0.0294	+/-0.108	0.0631	pCi/g					
Manganese-54	U	-0.00492	+/-0.0238	0.0192	+/-0.0234	0.0418	pCi/g					
Niobium-94	U	0.0222	+/-0.0187	0.0176	+/-0.0184	0.0381	pCi/g					
Potassium-40		8.38	+/-1.05	0.158	+/-1.03	0.368	pCi/g					
Radium-226		0.628	+/-0.116	0.0285	+/-0.113	0.0624	pCi/g					
Silver-108m	U	-0.0155	+/-0.0183	0.0147	+/-0.0179	0.0318	pCi/g					
Thallium-208		0.0989	+/-0.036	0.0194	+/-0.0353	0.0417	pCi/g					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	0.669	+/-1.33	1.09	+/-1.33	2.17	pCi/g		ATH1 12/31/04	0718	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)												
Iron-55	U	-2.61	+/-2.18	1.76	+/-2.19	3.56	pCi/g		DAJ1 01/13/05	1806	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)												
Nickel-63	U	-0.08	+/-0.610	0.513	+/-0.610	1.05	pCi/g		DAJ1 01/07/05	0720	391076	4
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-02
Sample ID: 127994012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	18	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	57	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-03	Project:	YANK01304
Sample ID:	127994013	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	8.31%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.435	+/-0.153	0.0651	+/-0.150	0.143	pCi/g		AKB	01/05/05	1554	391303	1
Americium-241	U	-0.0491	+/-0.096	0.077	+/-0.0941	0.161	pCi/g						
Bismuth-212		0.380	+/-0.253	0.148	+/-0.248	0.322	pCi/g						
Bismuth-214		0.513	+/-0.132	0.0352	+/-0.130	0.0758	pCi/g						
Cesium-134	U	0.0363	+/-0.0232	0.0229	+/-0.0227	0.0497	pCi/g						
Cesium-137		0.106	+/-0.0358	0.019	+/-0.0351	0.0411	pCi/g						
Cobalt-60	U	0.0014	+/-0.0264	0.0223	+/-0.0258	0.0498	pCi/g						
Europium-152	U	-0.0299	+/-0.0619	0.0521	+/-0.0606	0.110	pCi/g						
Europium-154	U	-0.0322	+/-0.0761	0.0607	+/-0.0745	0.135	pCi/g						
Europium-155	U	0.0141	+/-0.0656	0.0591	+/-0.0642	0.123	pCi/g						
Lead-212		0.441	+/-0.0692	0.0291	+/-0.0678	0.0612	pCi/g						
Lead-214		0.691	+/-0.110	0.0362	+/-0.108	0.0769	pCi/g						
Manganese-54	U	0.0154	+/-0.0219	0.0199	+/-0.0214	0.0434	pCi/g						
Niobium-94	U	0.0125	+/-0.0212	0.0192	+/-0.0207	0.0412	pCi/g						
Potassium-40		8.18	+/-1.04	0.155	+/-1.02	0.362	pCi/g						
Radium-226		0.513	+/-0.132	0.0352	+/-0.130	0.0758	pCi/g						
Silver-108m	U	0.00871	+/-0.0193	0.0172	+/-0.0189	0.0367	pCi/g						
Thallium-208		0.175	+/-0.0448	0.0216	+/-0.0439	0.0462	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		2.30	+/-1.30	1.01	+/-1.31	2.01	pCi/g		ATH1	12/31/04	0750	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.705	+/-1.37	1.03	+/-1.37	2.10	pCi/g		DAJ1	01/12/05	1058	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.31	+/-0.899	0.761	+/-0.899	1.55	pCi/g		DAJ1	01/07/05	0822	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-03
Sample ID: 127994013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	33	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	36	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-04	Project:	YANK01304
Sample ID:	127994014	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	5.14%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.362	+/-0.128	0.0566	+/-0.126	0.126	pCi/g		AKB	01/05/05	1554	391303	1
Americium-241	U	-0.0125	+/-0.106	0.094	+/-0.104	0.198	pCi/g						
Bismuth-212		0.418	+/-0.215	0.130	+/-0.210	0.285	pCi/g						
Bismuth-214		0.377	+/-0.0889	0.0277	+/-0.0871	0.0608	pCi/g						
Cesium-134	U	0.0159	+/-0.0219	0.0201	+/-0.0214	0.0439	pCi/g						
Cesium-137		0.0956	+/-0.0344	0.0157	+/-0.0337	0.0344	pCi/g						
Cobalt-60	U	0.0328	+/-0.0231	0.0233	+/-0.0227	0.0517	pCi/g						
Europium-152	U	-0.0113	+/-0.0528	0.0444	+/-0.0517	0.0951	pCi/g						
Europium-154	U	-0.0301	+/-0.0625	0.0488	+/-0.0612	0.111	pCi/g						
Europium-155	U	0.029	+/-0.0534	0.0522	+/-0.0524	0.110	pCi/g						
Lead-212		0.434	+/-0.0718	0.0243	+/-0.0704	0.0516	pCi/g						
Lead-214		0.420	+/-0.0907	0.0293	+/-0.0889	0.0631	pCi/g						
Manganese-54	U	0.0147	+/-0.019	0.0175	+/-0.0186	0.0385	pCi/g						
Niobium-94	U	0.014	+/-0.0259	0.0161	+/-0.0254	0.035	pCi/g						
Potassium-40		7.62	+/-1.03	0.186	+/-1.01	0.423	pCi/g						
Radium-226		0.377	+/-0.0889	0.0277	+/-0.0871	0.0608	pCi/g						
Silver-108m	U	0.00135	+/-0.0165	0.015	+/-0.0162	0.0323	pCi/g						
Thallium-208		0.131	+/-0.0433	0.0139	+/-0.0424	0.0307	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.23	+/-1.28	1.03	+/-1.28	2.06	pCi/g		ATH1	12/31/04	0822	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.95	+/-1.62	1.26	+/-1.63	2.57	pCi/g		DAJ1	01/12/05	1200	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.0596	+/-0.372	0.313	+/-0.372	0.639	pCi/g		DAJ1	01/07/05	0924	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-04
Sample ID: 127994014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	26	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	90	

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-05	Project:	YANK01304
Sample ID:	127994015	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	8.05%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.534	+/-0.191	0.0671	+/-0.187	0.151	pCi/g		AKB	01/05/05	1555	391303	1
Americium-241	U	-0.0119	+/-0.0901	0.0742	+/-0.0883	0.157	pCi/g						
Bismuth-212		0.337	+/-0.279	0.152	+/-0.274	0.335	pCi/g						
Bismuth-214		0.532	+/-0.113	0.0377	+/-0.111	0.0821	pCi/g						
Cesium-134	U	0.0225	+/-0.0293	0.0263	+/-0.0287	0.0573	pCi/g						
Cesium-137		0.117	+/-0.0418	0.0208	+/-0.0409	0.0456	pCi/g						
Cobalt-60	U	0.0378	+/-0.0465	0.026	+/-0.0456	0.0583	pCi/g						
Europium-152	U	-0.0489	+/-0.0681	0.0522	+/-0.0667	0.112	pCi/g						
Europium-154	U	-0.0685	+/-0.0814	0.0583	+/-0.0798	0.134	pCi/g						
Europium-155	U	-0.0208	+/-0.0593	0.0519	+/-0.0581	0.109	pCi/g						
Lead-212		0.462	+/-0.085	0.0431	+/-0.0833	0.0897	pCi/g						
Lead-214		0.435	+/-0.121	0.0366	+/-0.118	0.0786	pCi/g						
Manganese-54	U	-0.00134	+/-0.0219	0.0178	+/-0.0215	0.0399	pCi/g						
Niobium-94	U	-0.00366	+/-0.0225	0.0184	+/-0.022	0.0403	pCi/g						
Potassium-40		7.78	+/-1.10	0.166	+/-1.07	0.395	pCi/g						
Radium-226		0.532	+/-0.113	0.0377	+/-0.111	0.0821	pCi/g						
Silver-108m	U	-0.00171	+/-0.0205	0.0177	+/-0.0201	0.0383	pCi/g						
Thallium-208		0.155	+/-0.0547	0.0182	+/-0.0536	0.0401	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.19	+/-1.30	1.04	+/-1.30	2.08	pCi/g		ATH1	12/31/04	0854	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.638	+/-0.977	0.696	+/-0.977	1.41	pCi/g		DAJ1	01/09/05	1547	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.281	+/-0.607	0.515	+/-0.607	1.05	pCi/g		DAJ1	01/07/05	1026	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-05
Sample ID: 127994015

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,AI	66	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,AI	58	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-187-C-5C-06	Project:	YANK01304
Sample ID:	127994016	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	24-DEC-04		
Collector:	Client		
Moisture:	5.49%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.488	+/-0.154	0.0527	+/-0.151	0.118	pCi/g		AKB	01/05/05	1555	391303	1
Americium-241	U	-0.00377	+/-0.123	0.120	+/-0.121	0.252	pCi/g						
Bismuth-212		0.307	+/-0.248	0.105	+/-0.243	0.234	pCi/g						
Bismuth-214		0.378	+/-0.0924	0.0317	+/-0.0906	0.0686	pCi/g						
Cesium-134	U	0.0303	+/-0.0273	0.0203	+/-0.0267	0.0442	pCi/g						
Cesium-137		0.154	+/-0.0507	0.0145	+/-0.0497	0.0322	pCi/g						
Cobalt-60		0.103	+/-0.0455	0.017	+/-0.0446	0.0389	pCi/g						
Europium-152	U	-0.0227	+/-0.0543	0.0446	+/-0.0532	0.0955	pCi/g						
Europium-154	U	0.0372	+/-0.0642	0.0589	+/-0.0629	0.131	pCi/g						
Europium-155	U	0.0389	+/-0.0561	0.0547	+/-0.055	0.115	pCi/g						
Lead-212		0.332	+/-0.060	0.0276	+/-0.0588	0.0581	pCi/g						
Lead-214		0.532	+/-0.102	0.0301	+/-0.0994	0.0647	pCi/g						
Manganese-54	U	0.0035	+/-0.0184	0.0159	+/-0.018	0.0351	pCi/g						
Niobium-94	U	0.00372	+/-0.018	0.0158	+/-0.0176	0.0344	pCi/g						
Potassium-40		8.00	+/-1.02	0.126	+/-0.999	0.300	pCi/g						
Radium-226		0.378	+/-0.0924	0.0317	+/-0.0906	0.0686	pCi/g						
Silver-108m	U	0.00334	+/-0.0175	0.016	+/-0.0171	0.0343	pCi/g						
Thallium-208		0.0946	+/-0.0399	0.016	+/-0.0391	0.0349	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		2.84	+/-1.40	1.07	+/-1.41	2.14	pCi/g		ATH1	12/31/04	0926	391081	2
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	1.00	+/-1.39	1.01	+/-1.39	2.05	pCi/g		DAJ1	01/12/05	1303	391075	3
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.0104	+/-0.479	0.402	+/-0.479	0.820	pCi/g		DAJ1	01/07/05	1128	391076	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	DLD1	12/30/04	1519	390916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	12/29/04	1222	390915
GL-RAD-A-026	Laboratory sample composite				390914

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-187-C-5C-06
Sample ID: 127994016

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	41	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	75	

Notes:
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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

QUALITY CONTROL DATA

QC Summary

Report Date: January 19, 2005
Page 1 of 15

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390931										
QC1200763586 128121019 DUP										
Americium-241	U	0.0223	U	0.0146	pCi/g	42		(0% - 100%)	BJB1	01/10/05 19:59
	Uncert:	+/-0.0271		+/-0.0261						
	TPU:	+/-0.0272		+/-0.0262						
Curium-242	U	0.00132	U	0.00	pCi/g	200		(0% - 100%)		
	Uncert:	+/-0.0114		+/-0.00914						
	TPU:	+/-0.0114		+/-0.00914						
Curium-243/244	U	0.00244	U	-0.00465	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0149		+/-0.034						
	TPU:	+/-0.0149		+/-0.034						
QC1200763588 LCS										
Americium-241	4.91			4.92	pCi/g		100	(75%-125%)		
	Uncert:			+/-0.271						
	TPU:			+/-0.621						
Curium-242			U	0.00501	pCi/g					
	Uncert:			+/-0.0122						
	TPU:			+/-0.0122						
Curium-243/244	6.08			5.96	pCi/g		98	(75%-125%)		
	Uncert:			+/-0.300						
	TPU:			+/-0.741						
QC1200763585 MB										
Americium-241			U	0.00543	pCi/g					
	Uncert:			+/-0.0378						
	TPU:			+/-0.0378						
Curium-242			U	0.00286	pCi/g					
	Uncert:			+/-0.0175						
	TPU:			+/-0.0175						
Curium-243/244			U	0.0406	pCi/g					
	Uncert:			+/-0.0459						
	TPU:			+/-0.0461						
QC1200763587 128121019 MS										
Americium-241	5.10 U	0.0223		5.31	pCi/g		104	(75%-125%)		
	Uncert:	+/-0.0271		+/-0.302						
	TPU:	+/-0.0272		+/-0.680						
Curium-242	U	0.00132	U	0.00	pCi/g					
	Uncert:	+/-0.0114		+/-0.00944						
	TPU:	+/-0.0114		+/-0.00944						
Curium-243/244	6.33 U	0.00244		6.40	pCi/g		101	(75%-125%)		
	Uncert:	+/-0.0149		+/-0.334						
	TPU:	+/-0.0149		+/-0.808						
Batch 390932										
QC1200763590 128121019 DUP										
Plutonium-238	U	-0.00536	U	0.00318	pCi/g	N/A		(0% - 100%)	BJB1	01/07/05 16:04

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390932										
	Uncert:	+/-0.0231		+/-0.0241						
	TPU:	+/-0.0231		+/-0.0241						
Plutonium-239/240	U	0.00581	U	0.0145	pCi/g	86		(0% - 100%)		
	Uncert:	+/-0.0231		+/-0.0328						
	TPU:	+/-0.0231		+/-0.0328						
QC1200763592 LCS										
Plutonium-238			U	0.0109	pCi/g			(75%-125%)		
	Uncert:			+/-0.0308						
	TPU:			+/-0.0308						
Plutonium-239/240	4.30			4.04	pCi/g		94	(75%-125%)		
	Uncert:			+/-0.405						
	TPU:			+/-0.565						
QC1200763589 MB										
Plutonium-238			U	0.00386	pCi/g					01/07/05 16:04
	Uncert:			+/-0.0293						
	TPU:			+/-0.0293						
Plutonium-239/240			U	-0.00993	pCi/g					
	Uncert:			+/-0.0112						
	TPU:			+/-0.0113						
QC1200763591 128121019 MS										
Plutonium-238	U	-0.00536	U	0.0315	pCi/g			(75%-125%)		01/07/05 16:04
	Uncert:	+/-0.0231		+/-0.0391						
	TPU:	+/-0.0231		+/-0.0392						
Plutonium-239/240	4.47 U	0.00581		4.78	pCi/g		107	(75%-125%)		
	Uncert:	+/-0.0231		+/-0.458						
	TPU:	+/-0.0231		+/-0.656						
Batch 390933										
QC1200763594 128121019 DUP										
Plutonium-241	U	-0.84	U	-1.61	pCi/g	N/A		(0% - 100%)	BJB1	01/11/05 10:17
	Uncert:	+/-2.14		+/-2.03						
	TPU:	+/-2.14		+/-2.04						
QC1200763596 LCS										
Plutonium-241	62.3			55.0	pCi/g		88	(75%-125%)		01/11/05 12:21
	Uncert:			+/-3.14						
	TPU:			+/-5.62						
QC1200763593 MB										
Plutonium-241			U	0.623	pCi/g					01/11/05 09:15
	Uncert:			+/-2.24						
	TPU:			+/-2.24						
QC1200763595 128121019 MS										
Plutonium-241	65.0 U	-0.84		63.8	pCi/g		98	(75%-125%)		01/11/05 11:19
	Uncert:	+/-2.14		+/-3.47						
	TPU:	+/-2.14		+/-6.57						
Batch 392219										
QC1200766822 127994001 DUP										
Americium-241	U	0.236		0.181	pCi/g	26		(0% - 100%)	BJB1	01/15/05 13:11
	Uncert:	+/-0.313		+/-0.204						
	TPU:	+/-0.315		+/-0.206						
Curium-242	U	-0.0212	U	0.00	pCi/g	N/A		(0% - 100%)		

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 392219										
	Uncert:	+/-0.178		+/-0.134						
	TPU:	+/-0.178		+/-0.134						
Curium-243/244	U	0.398	U	0.212	pCi/g	61*		(0% - 100%)		
	Uncert:	+/-0.450		+/-0.240						
	TPU:	+/-0.453		+/-0.242						
QC1200766824 LCS										
Americium-241	25.3			25.0	pCi/g		99	(75%-125%)		
	Uncert:			+/-2.54						
	TPU:			+/-4.55						
Curium-242			U	0.00	pCi/g					
	Uncert:			+/-0.133						
	TPU:			+/-0.133						
Curium-243/244	31.3			35.9	pCi/g		115	(75%-125%)		
	Uncert:			+/-3.04						
	TPU:			+/-6.20						
QC1200766821 MB										
Americium-241			U	-0.108	pCi/g					
	Uncert:			+/-0.080						
	TPU:			+/-0.0816						
Curium-242			U	-0.0312	pCi/g					
	Uncert:			+/-0.135						
	TPU:			+/-0.135						
Curium-243/244			U	-0.0617	pCi/g					
	Uncert:			+/-0.140						
	TPU:			+/-0.140						
QC1200766823 127994001 MS										
Americium-241	26.5 U	0.236		27.2	pCi/g		102	(75%-125%)		
	Uncert:	+/-0.313		+/-2.58						
	TPU:	+/-0.315		+/-4.80						
Curium-242	U	-0.0212	U	-0.0174	pCi/g					
	Uncert:	+/-0.178		+/-0.146						
	TPU:	+/-0.178		+/-0.146						
Curium-243/244	32.9 U	0.398		36.7	pCi/g		110	(75%-125%)		
	Uncert:	+/-0.450		+/-3.00						
	TPU:	+/-0.453		+/-6.22						
Batch 392221										
QC1200766833 127994001 DUP										
Plutonium-241	U	3.54	U	0.673	pCi/g	0		(0% - 100%)	BJB1	01/18/05 02:52
	Uncert:	+/-14.3		+/-10.4						
	TPU:	+/-14.3		+/-10.4						
QC1200766835 LCS										
Plutonium-241	323			290	pCi/g		90	(75%-125%)		01/18/05 10:26
	Uncert:			+/-23.0						
	TPU:			+/-37.2						
QC1200766832 MB										
Plutonium-241			U	-1.95	pCi/g					01/18/05 00:48
	Uncert:			+/-7.83						
	TPU:			+/-7.84						
QC1200766834 127994001 MS										

QC Summary

Workorder: 127994

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec											
Batch 392221											
Plutonium-241	337	U	3.54		305	pCi/g		90	(75%-125%)		
	Uncert:		+/-14.3		+/-30.9						
	TPU:		+/-14.3		+/-51.2						
Batch 394891											
QC1200773239 128122001 DUP											
Plutonium-238		U	0.362	U	0.379	pCi/g	5		(0% - 100%)	AF1	01/18/05 08:38
	Uncert:		+/-0.300		+/-0.335						
	TPU:		+/-0.305		+/-0.340						
Plutonium-239/240		U	0.0298		0.319	pCi/g	166		(0% - 100%)		
	Uncert:		+/-0.160		+/-0.267						
	TPU:		+/-0.160		+/-0.271						
QC1200773241 LCS											
Plutonium-238				U	0.200	pCi/g			(75%-125%)		
	Uncert:				+/-0.344						
	TPU:				+/-0.345						
Plutonium-239/240	22.3				26.7	pCi/g		120	(75%-125%)		
	Uncert:				+/-2.45						
	TPU:				+/-4.50						
QC1200773238 MB											
Plutonium-238				U	0.168	pCi/g					
	Uncert:				+/-0.230						
	TPU:				+/-0.231						
Plutonium-239/240				U	0.00202	pCi/g					
	Uncert:				+/-0.110						
	TPU:				+/-0.110						
QC1200773240 128122001 MS											
Plutonium-238		U	0.362		0.491	pCi/g			(75%-125%)		
	Uncert:		+/-0.300		+/-0.337						
	TPU:		+/-0.305		+/-0.344						
Plutonium-239/240	22.5	U	0.0298		22.6	pCi/g		100	(75%-125%)		
	Uncert:		+/-0.160		+/-2.06						
	TPU:		+/-0.160		+/-3.70						
Rad Gamma Spec											
Batch 391303											
QC1200764529 127994002 DUP											
Actinium-228		U	0.491	UU1	0.00	pCi/g	76		(0% - 100%)	AKB	01/05/05 16:38
	Uncert:		+/-0.331		+/-0.592						
	TPU:		+/-0.324		+/-0.580						
Americium-241		U	0.0047	U	-0.0529	pCi/g	N/A		(0% - 100%)		
	Uncert:		+/-0.152		+/-0.134						
	TPU:		+/-0.149		+/-0.132						
Bismuth-212		U	-1.22	U	0.693	pCi/g	N/A		(0% - 100%)		
	Uncert:		+/-0.526		+/-0.565						
	TPU:		+/-0.516		+/-0.554						
Bismuth-214			0.573		0.715	pCi/g	22		(0% - 100%)		
	Uncert:		+/-0.170		+/-0.179						
	TPU:		+/-0.167		+/-0.176						
Cesium-134		U	0.0891	U	0.113	pCi/g	23		(0% - 100%)		

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391303										
	Uncert:	+/-0.0754		+/-0.076						
	TPU:	+/-0.0739		+/-0.0745						
Cesium-137	U	0.048	U	0.0475	pCi/g	1		(0% - 100%)		
	Uncert:	+/-0.0613		+/-0.0606						
	TPU:	+/-0.0601		+/-0.0594						
Cobalt-60		18.0		17.9	pCi/g	0		(0% - 20%)		
	Uncert:	+/-1.16		+/-1.20						
	TPU:	+/-1.14		+/-1.18						
Europium-152		20.1		20.2	pCi/g	0		(0% - 100%)		
	Uncert:	+/-1.45		+/-1.39						
	TPU:	+/-1.42		+/-1.36						
Europium-154		1.78		1.56	pCi/g	13		(0% - 100%)		
	Uncert:	+/-0.287		+/-0.333						
	TPU:	+/-0.282		+/-0.326						
Europium-155	U	0.105	U	0.0106	pCi/g	163		(0% - 100%)		
	Uncert:	+/-0.144		+/-0.161						
	TPU:	+/-0.141		+/-0.158						
Lead-212		0.402		0.391	pCi/g	3		(0% - 100%)		
	Uncert:	+/-0.0943		+/-0.105						
	TPU:	+/-0.0925		+/-0.103						
Lead-214		0.665		0.692	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.143		+/-0.153						
	TPU:	+/-0.140		+/-0.150						
Manganese-54	U	-0.0312	U	-0.0199	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0699		+/-0.0688						
	TPU:	+/-0.0685		+/-0.0674						
Niobium-94	U	0.0203	U	-0.059	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0539		+/-0.0545						
	TPU:	+/-0.0528		+/-0.0534						
Potassium-40		9.07		8.82	pCi/g	3		(0% - 20%)		
	Uncert:	+/-1.12		+/-1.24						
	TPU:	+/-1.10		+/-1.21						
Radium-226		0.573		0.715	pCi/g	22		(0% - 100%)		
	Uncert:	+/-0.170		+/-0.179						
	TPU:	+/-0.167		+/-0.176						
Silver-108m	U	-0.00899	U	-0.00827	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.047		+/-0.0476						
	TPU:	+/-0.0461		+/-0.0466						
Thallium-208	U	0.0554	U	0.0904	pCi/g	48		(0% - 100%)		
	Uncert:	+/-0.0764		+/-0.0703						
	TPU:	+/-0.0748		+/-0.0689						
QC1200764530 LCS										
Actinium-228			U	0.389	pCi/g					01/05/05 11:35
	Uncert:			+/-0.733						
	TPU:			+/-0.719						
Americium-241	23.4			23.5	pCi/g		101	(75%-125%)		
	Uncert:			+/-1.95						
	TPU:			+/-1.91						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391303										
Bismuth-212			U	-0.0574	pCi/g					
	Uncert:			+/-1.35						
	TPU:			+/-1.32						
Bismuth-214			U	0.161	pCi/g					
	Uncert:			+/-0.328						
	TPU:			+/-0.322						
Cesium-134			U	-0.0289	pCi/g					
	Uncert:			+/-0.188						
	TPU:			+/-0.184						
Cesium-137	9.13			9.49	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.996						
	TPU:			+/-0.976						
Cobalt-60	13.3			13.8	pCi/g		104	(75%-125%)		
	Uncert:			+/-1.13						
	TPU:			+/-1.11						
Europium-152			U	0.181	pCi/g					
	Uncert:			+/-0.354						
	TPU:			+/-0.347						
Europium-154			U	0.708	pCi/g					
	Uncert:			+/-0.711						
	TPU:			+/-0.697						
Europium-155			U	-0.273	pCi/g					
	Uncert:			+/-0.366						
	TPU:			+/-0.358						
Lead-212			U	0.134	pCi/g					
	Uncert:			+/-0.186						
	TPU:			+/-0.183						
Lead-214			U	0.116	pCi/g					
	Uncert:			+/-0.266						
	TPU:			+/-0.260						
Manganese-54			U	-0.0944	pCi/g					
	Uncert:			+/-0.185						
	TPU:			+/-0.182						
Niobium-94			U	0.0365	pCi/g					
	Uncert:			+/-0.153						
	TPU:			+/-0.150						
Potassium-40			U	0.545	pCi/g					
	Uncert:			+/-1.15						
	TPU:			+/-1.13						
Radium-226			U	0.161	pCi/g			(75%-125%)		
	Uncert:			+/-0.328						
	TPU:			+/-0.322						
Silver-108m			U	-0.00243	pCi/g					
	Uncert:			+/-0.169						
	TPU:			+/-0.166						
Thallium-208			U	0.113	pCi/g					
	Uncert:			+/-0.173						
	TPU:			+/-0.170						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391303										
QC1200764528 MB										
Actinium-228			U	0.0946	pCi/g					01/05/05 15:56
	Uncert:			+/-0.0707						
	TPU:			+/-0.0693						
Americium-241			U	0.0159	pCi/g					
	Uncert:			+/-0.139						
	TPU:			+/-0.136						
Bismuth-212			U	0.039	pCi/g					
	Uncert:			+/-0.153						
	TPU:			+/-0.150						
Bismuth-214			U	0.0304	pCi/g					
	Uncert:			+/-0.0475						
	TPU:			+/-0.0465						
Cesium-134			U	0.0213	pCi/g					
	Uncert:			+/-0.0224						
	TPU:			+/-0.022						
Cesium-137			U	-0.00105	pCi/g					
	Uncert:			+/-0.0196						
	TPU:			+/-0.0192						
Cobalt-60			U	-8.610E-05	pCi/g					
	Uncert:			+/-0.0222						
	TPU:			+/-0.0218						
Europium-152			U	-0.0372	pCi/g					
	Uncert:			+/-0.057						
	TPU:			+/-0.0559						
Europium-154			U	-0.0211	pCi/g					
	Uncert:			+/-0.0495						
	TPU:			+/-0.0485						
Europium-155			U	0.00733	pCi/g					
	Uncert:			+/-0.0648						
	TPU:			+/-0.0635						
Lead-212			U	0.0172	pCi/g					
	Uncert:			+/-0.0597						
	TPU:			+/-0.0585						
Lead-214			U	0.041	pCi/g					
	Uncert:			+/-0.0414						
	TPU:			+/-0.0405						
Manganese-54			U	-0.0048	pCi/g					
	Uncert:			+/-0.0241						
	TPU:			+/-0.0237						
Niobium-94			U	0.0112	pCi/g					
	Uncert:			+/-0.021						
	TPU:			+/-0.0206						
Potassium-40			U	0.379	pCi/g					
	Uncert:			+/-0.249						
	TPU:			+/-0.244						
Radium-226			U	0.0304	pCi/g					
	Uncert:			+/-0.0475						
	TPU:			+/-0.0465						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391303										
Silver-108m			U	-0.0133	pCi/g					
	Uncert:			+/-0.0191						
	TPU:			+/-0.0187						
Thallium-208			U	0.0118	pCi/g					
	Uncert:			+/-0.0329						
	TPU:			+/-0.0322						
Batch 393211										
QC1200769292 127994001 DUP										
Actinium-228	U	-0.42	U	3.99	pCi/g	N/A		(0% - 100%)	MJH1	01/18/05 14:17
	Uncert:	+/-4.52		+/-6.56						
	TPU:	+/-4.43		+/-6.43						
Americium-241	U	2.92	U	-0.309	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.59		+/-1.23						
	TPU:	+/-3.52		+/-1.20						
Bismuth-212	U	2.27	U	3.23	pCi/g	35*				
	Uncert:	+/-8.71		+/-10.3						
	TPU:	+/-8.54		+/-10.1						
Bismuth-214	UUI	0.00	U	1.73	pCi/g	106*				
	Uncert:	+/-4.68		+/-2.11						
	TPU:	+/-4.58		+/-2.07						
Cesium-134	U	0.250	U	1.07	pCi/g	124		(0% - 100%)		
	Uncert:	+/-1.22		+/-1.56						
	TPU:	+/-1.19		+/-1.53						
Cesium-137		12.6		16.0	pCi/g	23		(0% - 100%)		
	Uncert:	+/-2.14		+/-3.00						
	TPU:	+/-2.10		+/-2.94						
Cobalt-60		135		146	pCi/g	8		(0% - 20%)		
	Uncert:	+/-9.60		+/-7.14						
	TPU:	+/-9.40		+/-6.99						
Europium-152	U	-0.488	U	1.18	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-2.17		+/-2.53						
	TPU:	+/-2.13		+/-2.48						
Europium-154	U	1.91	U	-0.486	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.48		+/-3.35						
	TPU:	+/-1.45		+/-3.29						
Europium-155	U	1.15	U	0.274	pCi/g	123		(0% - 100%)		
	Uncert:	+/-2.17		+/-1.92						
	TPU:	+/-2.13		+/-1.88						
Lead-212	U	1.84	U	0.686	pCi/g	91		(0% - 20%)		
	Uncert:	+/-2.45		+/-1.97						
	TPU:	+/-2.40		+/-1.93						
Lead-214	U	0.552	U	0.0618	pCi/g	160*				
	Uncert:	+/-1.56		+/-1.78						
	TPU:	+/-1.53		+/-1.74						
Manganese-54	U	0.979	U	-0.235	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.21		+/-1.55						
	TPU:	+/-1.19		+/-1.52						
Niobium-94	U	-0.129	U	0.474	pCi/g	N/A		(0% - 100%)		

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 393211										
	Uncert:	+/-0.901		+/-1.16						
	TPU:	+/-0.883		+/-1.14						
Potassium-40	U	2.18	U	9.70	pCi/g	126*		(0%-20%)		
	Uncert:	+/-7.14		+/-8.53						
	TPU:	+/-6.99		+/-8.36						
Radium-226	UUI	0.00	U	1.73	pCi/g	106*		(0% - 100%)		
	Uncert:	+/-4.68		+/-2.11						
	TPU:	+/-4.58		+/-2.07						
Silver-108m	U	-0.0257	U	0.697	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.767		+/-0.900						
	TPU:	+/-0.752		+/-0.882						
Thallium-208	U	1.05	U	0.715	pCi/g	38		(0% - 20%)		
	Uncert:	+/-0.927		+/-1.26						
	TPU:	+/-0.909		+/-1.23						
QC1200769293 LCS										
Actinium-228			U	1.43	pCi/g					01/19/05 09:39
	Uncert:			+/-2.15						
	TPU:			+/-2.11						
Americium-241	31.2			28.6	pCi/g		92	(75%-125%)		
	Uncert:			+/-6.05						
	TPU:			+/-5.93						
Bismuth-212			U	0.936	pCi/g					
	Uncert:			+/-3.13						
	TPU:			+/-3.06						
Bismuth-214			U	0.000234	pCi/g					
	Uncert:			+/-0.789						
	TPU:			+/-0.773						
Cesium-134			U	-0.206	pCi/g					
	Uncert:			+/-0.456						
	TPU:			+/-0.447						
Cesium-137	12.2			10.3	pCi/g		85	(75%-125%)		
	Uncert:			+/-1.58						
	TPU:			+/-1.55						
Cobalt-60	17.7			17.0	pCi/g		96	(75%-125%)		
	Uncert:			+/-2.20						
	TPU:			+/-2.16						
Europium-152			U	0.663	pCi/g					
	Uncert:			+/-1.10						
	TPU:			+/-1.08						
Europium-154			U	0.346	pCi/g					
	Uncert:			+/-0.815						
	TPU:			+/-0.799						
Europium-155			U	0.0895	pCi/g					
	Uncert:			+/-1.14						
	TPU:			+/-1.12						
Lead-212			U	0.203	pCi/g					
	Uncert:			+/-0.590						
	TPU:			+/-0.578						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 393211										
Lead-214			U	0.115	pCi/g					
	Uncert:			+/-0.659						
	TPU:			+/-0.646						
Manganese-54			U	0.204	pCi/g					
	Uncert:			+/-0.397						
	TPU:			+/-0.389						
Niobium-94			U	-0.11	pCi/g					
	Uncert:			+/-0.373						
	TPU:			+/-0.366						
Potassium-40			U	-0.58	pCi/g					
	Uncert:			+/-3.92						
	TPU:			+/-3.85						
Radium-226			U	0.000234	pCi/g			(75%-125%)		
	Uncert:			+/-0.789						
	TPU:			+/-0.773						
Silver-108m			U	0.0869	pCi/g					
	Uncert:			+/-0.367						
	TPU:			+/-0.359						
Thallium-208			U	-0.0572	pCi/g					
	Uncert:			+/-0.363						
	TPU:			+/-0.356						
QC1200769291 MB										
Actinium-228			U	0.429	pCi/g					01/17/05 11:36
	Uncert:			+/-0.533						
	TPU:			+/-0.522						
Americium-241			U	-0.00749	pCi/g					
	Uncert:			+/-0.156						
	TPU:			+/-0.153						
Bismuth-212			U	0.550	pCi/g					
	Uncert:			+/-0.973						
	TPU:			+/-0.954						
Bismuth-214			U	0.320	pCi/g					
	Uncert:			+/-0.257						
	TPU:			+/-0.252						
Cesium-134			U	0.0154	pCi/g					
	Uncert:			+/-0.136						
	TPU:			+/-0.134						
Cesium-137			U	0.117	pCi/g					
	Uncert:			+/-0.127						
	TPU:			+/-0.125						
Cobalt-60			U	-0.0111	pCi/g					
	Uncert:			+/-0.131						
	TPU:			+/-0.128						
Europium-152			U	-0.0234	pCi/g					
	Uncert:			+/-0.279						
	TPU:			+/-0.273						
Europium-154			U	-0.156	pCi/g					
	Uncert:			+/-0.396						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 393211										
	TPU:			+/-0.388						
Europium-155			U	0.0223	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.247						
Lead-212			UU1	0.00	pCi/g					
	Uncert:			+/-0.313						
	TPU:			+/-0.307						
Lead-214			U	0.130	pCi/g					
	Uncert:			+/-0.371						
	TPU:			+/-0.364						
Manganese-54			U	-0.0297	pCi/g					
	Uncert:			+/-0.139						
	TPU:			+/-0.136						
Niobium-94			U	-0.0296	pCi/g					
	Uncert:			+/-0.117						
	TPU:			+/-0.115						
Potassium-40			U	1.66	pCi/g					
	Uncert:			+/-1.38						
	TPU:			+/-1.35						
Radium-226			U	0.320	pCi/g					
	Uncert:			+/-0.257						
	TPU:			+/-0.252						
Silver-108m			U	0.0689	pCi/g					
	Uncert:			+/-0.123						
	TPU:			+/-0.121						
Thallium-208			U	0.0204	pCi/g					
	Uncert:			+/-0.164						
	TPU:			+/-0.161						
Rad Gas Flow										
Batch 390998										
QC1200763780 127994003 DUP										
Strontium-90		U	0.00458	0.0117	pCi/g	0		(0% - 100%)	JMB1	01/09/05 20:26
	Uncert:		+/-0.00575	+/-0.00531						
	TPU:		+/-0.006	+/-0.00658						
QC1200763782 LCS										
Strontium-90	1.51			1.36	pCi/g		90	(75%-125%)		01/04/05 20:49
	Uncert:			+/-0.0945						
	TPU:			+/-0.418						
QC1200763779 MB										
Strontium-90			U	0.00112	pCi/g					01/09/05 20:26
	Uncert:			+/-0.0042						
	TPU:			+/-0.00421						
QC1200763781 127994003 MS										
Strontium-90	3.35	U	0.00458	2.77	pCi/g		83	(75%-125%)		01/04/05 20:49
	Uncert:		+/-0.00575	+/-0.218						
	TPU:		+/-0.006	+/-1.00						
Batch 392498										
QC1200767448 127994001 DUP										

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 392498										
Strontium-90		1.75		1.50	pCi/g	15		(0% - 20%)	JMB1	01/14/05 20:44
	Uncert:	+/-0.154		+/-0.142						
	TPU:	+/-0.510		+/-0.406						
QC1200767450 LCS										
Strontium-90	18.1			16.8	pCi/g		93	(75%-125%)		01/14/05 13:24
	Uncert:			+/-0.993						
	TPU:			+/-4.06						
QC1200767447 MB										
Strontium-90			U	-0.00886	pCi/g					01/14/05 20:44
	Uncert:			+/-0.0829						
	TPU:			+/-0.0829						
QC1200767449 127994001 MS										
Strontium-90	35.7	1.75		35.0	pCi/g		93	(75%-125%)		01/14/05 13:24
	Uncert:	+/-0.154		+/-1.99						
	TPU:	+/-0.510		+/-8.29						
Rad Liquid Scintillation										
Batch 388611										
QC1200758093 127994003 DUP										
Carbon-14	U	0.0801	U	0.0234	pCi/g	0		(0% - 100%)	LAG1	12/30/04 16:30
	Uncert:	+/-0.345		+/-0.354						
	TPU:	+/-0.345		+/-0.354						
QC1200758095 LCS										
Carbon-14	15.8			16.0	pCi/g		101	(75%-125%)		12/30/04 17:33
	Uncert:			+/-0.695						
	TPU:			+/-0.739						
QC1200758092 MB										
Carbon-14			U	0.185	pCi/g					12/30/04 15:58
	Uncert:			+/-0.369						
	TPU:			+/-0.369						
QC1200758094 127994003 MS										
Carbon-14	16.2 U	0.0801		16.5	pCi/g		101	(75%-125%)		12/30/04 17:02
	Uncert:	+/-0.345		+/-0.714						
	TPU:	+/-0.345		+/-0.760						
Batch 391075										
QC1200766160 127994012 DUP										
Iron-55	U	-2.61	U	-1.24	pCi/g	N/A		(0% - 100%)	DAJ1	01/12/05 14:06
	Uncert:	+/-2.18		+/-1.77						
	TPU:	+/-2.19		+/-1.77						
QC1200763977 LCS										
Iron-55	38.3			36.2	pCi/g		95	(75%-125%)		01/09/05 21:00
	Uncert:			+/-1.07						
	TPU:			+/-1.79						
QC1200763974 MB										
Iron-55			U	-0.505	pCi/g					01/09/05 17:52
	Uncert:			+/-0.711						
	TPU:			+/-0.711						
QC1200766161 127994012 MS										
Iron-55	39.6 U	-2.61		30.3	pCi/g		76	(75%-125%)		01/12/05 15:09
	Uncert:	+/-2.18		+/-2.43						

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch 391075											
	TPU:	+/-2.19		+/-2.97							
Batch 391076											
QC1200766174 127994012 DUP											
Nickel-63	U	-0.08	U	0.352	pCi/g	N/A		(0% - 100%)	DAJ1	01/07/05	13:32
	Uncert:	+/-0.610		+/-0.680							
	TPU:	+/-0.610		+/-0.680							
QC1200763981 LCS											
Nickel-63	30.0			25.3	pCi/g		84	(75%-125%)		01/07/05	15:36
	Uncert:			+/-1.15							
	TPU:			+/-1.43							
QC1200763978 MB											
Nickel-63			U	0.0516	pCi/g					01/07/05	12:30
	Uncert:			+/-0.712							
	TPU:			+/-0.712							
QC1200766175 127994012 MS											
Nickel-63	31.0 U	-0.08		29.0	pCi/g		94	(75%-125%)		01/07/05	14:35
	Uncert:	+/-0.610		+/-1.17							
	TPU:	+/-0.610		+/-1.52							
Batch 391077											
QC1200763983 128122003 DUP											
Technetium-99	U	0.459	U	0.0518	pCi/g	119		(0% - 100%)	EGD1	01/09/05	16:04
	Uncert:	+/-0.340		+/-0.345							
	TPU:	+/-0.340		+/-0.345							
QC1200763985 LCS											
Technetium-99	28.4			30.8	pCi/g		108	(75%-125%)		01/09/05	17:08
	Uncert:			+/-0.911							
	TPU:			+/-1.15							
QC1200763982 MB											
Technetium-99			U	0.418	pCi/g					01/09/05	15:32
	Uncert:			+/-0.330							
	TPU:			+/-0.331							
QC1200763984 128122003 MS											
Technetium-99	28.6 U	0.459		30.5	pCi/g		105	(75%-125%)		01/09/05	16:36
	Uncert:	+/-0.340		+/-0.936							
	TPU:	+/-0.340		+/-1.17							
Batch 391081											
QC1200763998 127994012 DUP											
Tritium	U	0.669	U	0.724	pCi/g	0		(0% - 100%)	ATH1	12/31/04	10:30
	Uncert:	+/-1.33		+/-1.33							
	TPU:	+/-1.33		+/-1.33							
QC1200764000 LCS											
Tritium	7.88			8.70	pCi/g		110	(75%-125%)		12/31/04	11:34
	Uncert:			+/-1.64							
	TPU:			+/-1.73							
QC1200763997 MB											
Tritium			U	0.0283	pCi/g					12/31/04	09:58
	Uncert:			+/-1.28							
	TPU:			+/-1.28							
QC1200763999 127994012 MS											

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 391081										
Tritium	7.92 U	0.669		7.09	pCi/g		81	(75%-125%)		
	Uncert:	+/-1.33		+/-1.61						
	TPU:	+/-1.33		+/-1.67						
Batch 392560										
QC1200767655 128122001 DUP										
Nickel-63		85.8		82.1	pCi/g	4		(0% - 100%)	DAJ1	01/15/05 15:31
	Uncert:	+/-4.42		+/-4.64						
	TPU:	+/-5.28		+/-5.40						
QC1200767657 LCS										
Nickel-63	246			278	pCi/g		113	(75%-125%)		01/15/05 19:18
	Uncert:			+/-7.52						
	TPU:			+/-12.0						
QC1200767654 MB										
Nickel-63			U	1.14	pCi/g					01/15/05 13:25
	Uncert:			+/-3.28						
	TPU:			+/-3.28						
QC1200767656 128122001 MS										
Nickel-63	258	85.8		358	pCi/g		106	(75%-125%)		01/15/05 17:14
	Uncert:	+/-4.42		+/-8.38						
	TPU:	+/-5.28		+/-14.7						
Batch 393090										
QC1200768959 128173001 DUP										
Technetium-99		7.43		8.03	pCi/g	8		(0% - 100%)	EGD1	01/17/05 17:27
	Uncert:	+/-1.40		+/-1.46						
	TPU:	+/-1.41		+/-1.48						
QC1200768961 LCS										
Technetium-99	108			132	pCi/g		123	(75%-125%)		01/17/05 18:31
	Uncert:			+/-3.89						
	TPU:			+/-5.20						
QC1200768958 MB										
Technetium-99			U	0.145	pCi/g					01/17/05 14:44
	Uncert:			+/-0.706						
	TPU:			+/-0.706						
QC1200768960 128173001 MS										
Technetium-99	112	7.43		127	pCi/g		107	(75%-125%)		01/17/05 17:59
	Uncert:	+/-1.40		+/-3.86						
	TPU:	+/-1.41		+/-5.10						
Batch 395047										
QC1200773522 128122001 DUP										
Iron-55		10000		10400	pCi/g	4		(0% - 20%)	DAJ1	01/19/05 11:24
	Uncert:	+/-111		+/-114						
	TPU:	+/-387		+/-403						
QC1200773524 LCS										
Iron-55	3050			2990	pCi/g		98	(75%-125%)		01/19/05 12:26
	Uncert:			+/-77.7						
	TPU:			+/-135						
QC1200773521 MB										
Iron-55				88.3	pCi/g					01/19/05 13:50

QC Summary

Workorder: 127994

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch 395047											
	Uncert:			+/-65.8							
	TPU:			+/-65.9							
QC1200773523 128122001 MS											
Iron-55	3300	10000		13500	pCi/g		106	(75%-125%)		01/19/05	11:55
	Uncert:	+/-111		+/-126							
	TPU:	+/-387		+/-516							

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00250

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☐ 14 D. ☐ 7 D.
Other: 3 day TAT

Lab Use Only
Comments:
22 North Sp Wac
23 Bwall

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	Sr-90	H-3				Comment, Preservation	Lab Sample ID
2228-0000-022-C-1C-01	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-02	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-03	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-04	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-05	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-2C-01	10/27/04	1515	CT	CR	PB	X	X	X					
2228-0000-022-C-3C-01	10/27/04	1525	CT	CR	PB	X	X	X					

NOTES: PO #: 002337 MSR #: 04-3731 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

NOTE: 3 day TAT

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
79196873477
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
J. Gurney	10/28/04 @ 1055	M. Mitchell	10:29:04 0950
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00251

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☐ 14 D. ☐ 7 D.
Other: 3 day TAT

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	Sr-90	H-3				Comment, Preservation	Lab Sample ID
2228-0000-023-C-1C-01	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-02	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-03	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-04	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-05	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-2C-01	10/27/04	1424	CT	CR	PB	X	X	X					
2228-0000-023-C-3C-01	10/27/04	1430	CT	CR	PB	X	X	X					

NOTES: PO #: 002337 MSR #: 04-3731 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

NOTE: 3 day TAT

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
791966873477
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
J. Gerrity	10/28/04 @ 1055	M. Mitchell	10-29-04 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 10/29/04 0950

SDG#: MSR# 04-3731

Work Order Number: 124488

Shipping Container ID: 7919 6687 3477 Chain of Custody # 2004-00251

1. Custody Seals on shipping container intact? Yes [X] No [ ]
2. Custody Seals dated and signed? Yes [X] No [ ]
3. Chain-of-Custody record present? Yes [X] No [ ]
4. Cooler temperature 20 °C
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
6. Number of samples in shipping container: 14 CT pucks (wafers)
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:

_____tape _____hazard labels

_____custody seals X appropriate sample labels

9. Samples are:

X in good condition _____leaking

_____broken _____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [X]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: M Mitchell Date: 10-29-04 0950

Telephoned to:_____On_____By_____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: CT Yank	SDG/ARCOC/Work Order: R44498
Date Received: 10-28-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: UM	[signature] 10/29/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		✓		Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Internal Samples Fedex 7919 6687 3477			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	20 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CA Initials 10/29/04 Date

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3731 GEL Work Order: 124488

The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by _____

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-01
Sample ID: 124488001
Matrix: CT
Collect Date: 27-OCT-04 13:55
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228	UUI	0.00	+/-0.160	0.277	0.800	pCi/g		AKB 11/01/04	1337	377467	1
Americium-241	U	-0.00349	+/-0.161	0.270	1.00	pCi/g					
Bismuth-212	U	0.259	+/-0.226	0.289	0.500	pCi/g					
Bismuth-214		0.421	+/-0.0843	0.0768	0.200	pCi/g					
Cesium-134	U	0.0121	+/-0.0223	0.044	10.0	pCi/g					
Cesium-137	U	0.0233	+/-0.0238	0.0477	20.0	pCi/g					
Cobalt-60	U	0.0075	+/-0.0208	0.0389	3.00	pCi/g					
Europium-152	U	-0.0231	+/-0.0536	0.0936	9.00	pCi/g					
Europium-154	U	0.0102	+/-0.0605	0.120	7.00	pCi/g					
Europium-155	U	0.0585	+/-0.0562	0.116	300	pCi/g					
Lead-212		0.495	+/-0.0629	0.0517	0.100	pCi/g					
Lead-214		0.429	+/-0.0968	0.0712	0.100	pCi/g					
Manganese-54	U	0.00473	+/-0.017	0.0331	2.00	pCi/g					
Niobium-94	U	-0.00108	+/-0.0174	0.0323	0.300	pCi/g					
Potassium-40		8.61	+/-0.904	0.344	1.00	pCi/g					
Radium-226		0.421	+/-0.0843	0.0768	1.00	pCi/g					
Silver-108m	U	0.0104	+/-0.0169	0.0342	1.00	pCi/g					
Thallium-208		0.122	+/-0.0379	0.0333	0.080	pCi/g					
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90		0.0628	+/-0.0341	0.0605	0.100	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		32.3	+/-2.17	2.12	3.00	pCi/g		DAJ1 11/01/04	1838	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-01
Sample ID: 124488001

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-02
Sample ID: 124488002
Matrix: CT
Collect Date: 27-OCT-04 13:55
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.592	+/-0.160	0.158	0.800	pCi/g		AKB	11/01/04	1130	377467	1
Americium-241	U	-0.066	+/-0.0973	0.165	1.00	pCi/g						
Bismuth-212		0.590	+/-0.245	0.300	0.500	pCi/g						
Bismuth-214		0.389	+/-0.0946	0.0797	0.200	pCi/g						
Cesium-134	U	0.0446	+/-0.0258	0.0558	10.0	pCi/g						
Cesium-137	U	-0.0166	+/-0.0244	0.0413	20.0	pCi/g						
Cobalt-60	U	-0.0115	+/-0.0168	0.0279	3.00	pCi/g						
Europium-152	U	-0.0199	+/-0.054	0.100	9.00	pCi/g						
Europium-154	U	-0.001	+/-0.0696	0.115	7.00	pCi/g						
Europium-155	U	0.0607	+/-0.0597	0.120	300	pCi/g						
Lead-212		0.406	+/-0.0625	0.0608	0.100	pCi/g						
Lead-214		0.456	+/-0.0999	0.0762	0.100	pCi/g						
Manganese-54	U	0.0341	+/-0.0342	0.0388	2.00	pCi/g						
Niobium-94	U	0.00652	+/-0.0208	0.0393	0.300	pCi/g						
Potassium-40		7.71	+/-0.912	0.458	1.00	pCi/g						
Radium-226		0.389	+/-0.0946	0.0797	1.00	pCi/g						
Silver-108m	U	-0.00895	+/-0.0182	0.0329	1.00	pCi/g						
Thallium-208		0.142	+/-0.0651	0.039	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0474	+/-0.0423	0.0776	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		55.7	+/-2.73	2.10	3.00	pCi/g		DAJ1	11/01/04	1910	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-03
Sample ID: 124488003
Matrix: CT
Collect Date: 27-OCT-04 13:55
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.586	+/-0.159	0.134	0.800	pCi/g		AKB	11/01/04	1131	377467	1
Americium-241	U	0.0123	+/-0.0239	0.0443	1.00	pCi/g						
Bismuth-212		0.512	+/-0.317	0.274	0.500	pCi/g						
Bismuth-214		0.371	+/-0.082	0.0674	0.200	pCi/g						
Cesium-134	U	0.0193	+/-0.0233	0.0471	10.0	pCi/g						
Cesium-137	U	0.000901	+/-0.0206	0.0392	20.0	pCi/g						
Cobalt-60	U	-0.022	+/-0.0223	0.0358	3.00	pCi/g						
Europium-152	U	0.0538	+/-0.0653	0.0878	9.00	pCi/g						
Europium-154	U	0.0299	+/-0.0792	0.153	7.00	pCi/g						
Europium-155	U	0.0349	+/-0.0409	0.0817	300	pCi/g						
Lead-212		0.464	+/-0.0667	0.0534	0.100	pCi/g						
Lead-214		0.507	+/-0.0817	0.0611	0.100	pCi/g						
Manganese-54	U	0.00781	+/-0.0212	0.0409	2.00	pCi/g						
Niobium-94	U	-0.00684	+/-0.0186	0.0338	0.300	pCi/g						
Potassium-40		7.30	+/-0.924	0.351	1.00	pCi/g						
Radium-226		0.371	+/-0.082	0.0674	1.00	pCi/g						
Silver-108m	U	-0.026	+/-0.0175	0.0276	1.00	pCi/g						
Thallium-208		0.150	+/-0.0417	0.0373	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.00661	+/-0.031	0.0592	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		50.8	+/-2.66	2.16	3.00	pCi/g		DAJ1	11/01/04	1942	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-04
Sample ID: 124488004
Matrix: CT
Collect Date: 27-OCT-04 13:55
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.424	+/-0.144	0.126	0.800	pCi/g		AKB 11/01/04	1131	377467	1
Americium-241	U	-0.069	+/-0.144	0.234	1.00	pCi/g					
Bismuth-212		0.278	+/-0.169	0.274	0.500	pCi/g					
Bismuth-214		0.383	+/-0.0928	0.0623	0.200	pCi/g					
Cesium-134	U	0.0144	+/-0.0198	0.0417	10.0	pCi/g					
Cesium-137	U	0.0165	+/-0.0198	0.0402	20.0	pCi/g					
Cobalt-60	U	0.00581	+/-0.0205	0.0413	3.00	pCi/g					
Europium-152	U	-0.0061	+/-0.0517	0.0938	9.00	pCi/g					
Europium-154	U	-0.00241	+/-0.0595	0.114	7.00	pCi/g					
Europium-155	U	0.00511	+/-0.0502	0.100	300	pCi/g					
Lead-212		0.424	+/-0.0574	0.052	0.100	pCi/g					
Lead-214		0.392	+/-0.0853	0.0595	0.100	pCi/g					
Manganese-54	U	0.00115	+/-0.0195	0.0364	2.00	pCi/g					
Niobium-94	U	0.00982	+/-0.0112	0.0261	0.300	pCi/g					
Potassium-40		7.38	+/-0.837	0.310	1.00	pCi/g					
Radium-226		0.383	+/-0.0928	0.0623	1.00	pCi/g					
Silver-108m	U	2.140E-05	+/-0.0158	0.0309	1.00	pCi/g					
Thallium-208		0.141	+/-0.0409	0.0416	0.080	pCi/g					
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90	U	0.067	+/-0.0483	0.0878	0.100	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		59.6	+/-2.75	2.01	3.00	pCi/g		DAJ1 11/01/04	2014	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-1C-05
Sample ID: 124488005
Matrix: CT
Collect Date: 27-OCT-04 13:55
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.437	+/-0.192	0.165	0.800	pCi/g		AKB	11/01/04	1144	377467	1
Americium-241	U	0.00452	+/-0.0305	0.0595	1.00	pCi/g						
Bismuth-212	U	0.263	+/-0.330	0.363	0.500	pCi/g						
Bismuth-214		0.345	+/-0.0902	0.0874	0.200	pCi/g						
Cesium-134	U	0.037	+/-0.0355	0.0598	10.0	pCi/g						
Cesium-137	U	-0.00644	+/-0.0255	0.0477	20.0	pCi/g						
Cobalt-60	U	-0.000147	+/-0.0339	0.0569	3.00	pCi/g						
Europium-152	U	-0.0155	+/-0.0541	0.0996	9.00	pCi/g						
Europium-154	U	0.0257	+/-0.0707	0.146	7.00	pCi/g						
Europium-155	U	0.0301	+/-0.0493	0.0954	300	pCi/g						
Lead-212		0.463	+/-0.059	0.0564	0.100	pCi/g						
Lead-214		0.456	+/-0.106	0.0792	0.100	pCi/g						
Manganese-54	U	-6.740E-05	+/-0.0253	0.0476	2.00	pCi/g						
Niobium-94	U	0.0151	+/-0.0263	0.052	0.300	pCi/g						
Potassium-40		6.91	+/-0.978	0.399	1.00	pCi/g						
Radium-226		0.345	+/-0.0902	0.0874	1.00	pCi/g						
Silver-108m	U	0.00536	+/-0.0198	0.0378	1.00	pCi/g						
Thallium-208		0.186	+/-0.0502	0.0445	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0451	+/-0.0309	0.0556	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		36.9	+/-2.26	2.07	3.00	pCi/g		DAJ1	11/01/04	2046	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	BJ1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-2C-01
Sample ID: 124488006
Matrix: CT
Collect Date: 27-OCT-04 14:24
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.464	+/-0.161	0.119	0.800	pCi/g		AKB 11/01/04	1225	377467	1
Americium-241	U	0.00843	+/-0.0346	0.138	1.00	pCi/g					
Bismuth-212	U	0.239	+/-0.287	0.299	0.500	pCi/g					
Bismuth-214		0.382	+/-0.0939	0.0606	0.200	pCi/g					
Cesium-134	U	0.0184	+/-0.0261	0.0425	10.0	pCi/g					
Cesium-137	U	0.00525	+/-0.0182	0.036	20.0	pCi/g					
Cobalt-60	U	0.0062	+/-0.0193	0.0404	3.00	pCi/g					
Europium-152	U	0.0249	+/-0.0451	0.0879	9.00	pCi/g					
Europium-154	U	0.0325	+/-0.161	0.129	7.00	pCi/g					
Europium-155	U	0.00925	+/-0.0519	0.102	300	pCi/g					
Lead-212		0.433	+/-0.0622	0.0501	0.100	pCi/g					
Lead-214		0.426	+/-0.0936	0.0703	0.100	pCi/g					
Manganese-54	U	0.0281	+/-0.0203	0.0434	2.00	pCi/g					
Niobium-94	U	0.0027	+/-0.019	0.0362	0.300	pCi/g					
Potassium-40		8.21	+/-1.07	0.370	1.00	pCi/g					
Radium-226		0.382	+/-0.0939	0.0606	1.00	pCi/g					
Silver-108m	U	0.00121	+/-0.0165	0.0304	1.00	pCi/g					
Thallium-208		0.144	+/-0.0423	0.0312	0.080	pCi/g					
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90	U	0.044	+/-0.0335	0.061	0.100	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		3.77	+/-1.14	2.15	3.00	pCi/g		DAJ1 11/01/04	2117	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-023-C-3C-01
Sample ID: 124488007
Matrix: CT
Collect Date: 27-OCT-04 14:30
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.411	+/-0.162	0.120	0.800	pCi/g		AKB	11/01/04	1225	377467	1
Americium-241	U	-0.0701	+/-0.113	0.201	1.00	pCi/g						
Bismuth-212		0.480	+/-0.182	0.261	0.500	pCi/g						
Bismuth-214		0.430	+/-0.0861	0.0666	0.200	pCi/g						
Cesium-134	U	0.0321	+/-0.0265	0.0445	10.0	pCi/g						
Cesium-137	U	0.0204	+/-0.0198	0.0384	20.0	pCi/g						
Cobalt-60	U	0.0206	+/-0.0171	0.0396	3.00	pCi/g						
Europium-152	U	-0.00769	+/-0.0519	0.0935	9.00	pCi/g						
Europium-154	U	-0.036	+/-0.0623	0.109	7.00	pCi/g						
Europium-155	U	0.0303	+/-0.0581	0.117	300	pCi/g						
Lead-212		0.498	+/-0.0609	0.0502	0.100	pCi/g						
Lead-214		0.415	+/-0.0888	0.0678	0.100	pCi/g						
Manganese-54	U	-0.00181	+/-0.0226	0.036	2.00	pCi/g						
Niobium-94	U	-0.019	+/-0.0224	0.0318	0.300	pCi/g						
Potassium-40		8.17	+/-0.830	0.414	1.00	pCi/g						
Radium-226		0.430	+/-0.0861	0.0666	1.00	pCi/g						
Silver-108m	U	0.00287	+/-0.0167	0.0328	1.00	pCi/g						
Thallium-208		0.108	+/-0.0421	0.0349	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90		0.360	+/-0.0489	0.0674	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		22.3	+/-1.91	2.18	3.00	pCi/g		DAJ1	11/01/04	2149	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-01
Sample ID: 124488008
Matrix: CT
Collect Date: 27-OCT-04 15:00
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.503	+/-0.136	0.123	0.800	pCi/g		AKB	11/01/04	1226	377467	1
Americium-241	U	-0.00231	+/-0.0962	0.161	1.00	pCi/g						
Bismuth-212		0.340	+/-0.260	0.297	0.500	pCi/g						
Bismuth-214		0.530	+/-0.0972	0.0643	0.200	pCi/g						
Cesium-134	U	0.0154	+/-0.0211	0.0427	10.0	pCi/g						
Cesium-137	U	0.00239	+/-0.0184	0.0354	20.0	pCi/g						
Cobalt-60	U	-0.00682	+/-0.018	0.0329	3.00	pCi/g						
Europium-152	U	-0.0281	+/-0.0514	0.0884	9.00	pCi/g						
Europium-154	U	-0.0376	+/-0.0581	0.100	7.00	pCi/g						
Europium-155	U	0.0431	+/-0.0514	0.105	300	pCi/g						
Lead-212		0.485	+/-0.0711	0.0559	0.100	pCi/g						
Lead-214		0.617	+/-0.0957	0.0618	0.100	pCi/g						
Manganese-54	U	-0.00803	+/-0.0199	0.0348	2.00	pCi/g						
Niobium-94	U	0.00672	+/-0.0207	0.0394	0.300	pCi/g						
Potassium-40		7.48	+/-0.938	0.312	1.00	pCi/g						
Radium-226		0.530	+/-0.0972	0.0643	1.00	pCi/g						
Silver-108m	U	0.0057	+/-0.0173	0.0342	1.00	pCi/g						
Thallium-208		0.150	+/-0.0406	0.0401	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90		0.266	+/-0.0523	0.0792	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		8.20	+/-1.34	2.12	3.00	pCi/g		DAJ1	11/01/04	2221	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	BJ1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-02
Sample ID: 124488009
Matrix: CT
Collect Date: 27-OCT-04 15:00
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.594	+/-0.155	0.132	0.800	pCi/g		AKB	11/01/04	1226	377467	1
Americium-241	U	0.089	+/-0.107	0.199	1.00	pCi/g						
Bismuth-212		0.409	+/-0.233	0.279	0.500	pCi/g						
Bismuth-214		0.459	+/-0.0983	0.0796	0.200	pCi/g						
Cesium-134	U	0.0421	+/-0.0332	0.0533	10.0	pCi/g						
Cesium-137	U	-0.0156	+/-0.0214	0.038	20.0	pCi/g						
Cobalt-60	U	-0.0102	+/-0.0259	0.0465	3.00	pCi/g						
Europium-152	U	-0.00553	+/-0.0566	0.106	9.00	pCi/g						
Europium-154	U	-0.006	+/-0.0659	0.125	7.00	pCi/g						
Europium-155	U	-0.00103	+/-0.0696	0.131	300	pCi/g						
Lead-212		0.521	+/-0.0697	0.0691	0.100	pCi/g						
Lead-214		0.524	+/-0.105	0.0809	0.100	pCi/g						
Manganese-54	U	0.0139	+/-0.0226	0.0447	2.00	pCi/g						
Niobium-94	U	0.0183	+/-0.0206	0.0418	0.300	pCi/g						
Potassium-40		8.36	+/-0.891	0.430	1.00	pCi/g						
Radium-226		0.459	+/-0.0983	0.0796	1.00	pCi/g						
Silver-108m	U	0.0155	+/-0.0191	0.0382	1.00	pCi/g						
Thallium-208		0.131	+/-0.040	0.043	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90		0.0507	+/-0.0254	0.0444	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		27.4	+/-1.95	1.98	3.00	pCi/g		DAJ1	11/01/04	2253	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	BJ1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-03
Sample ID: 124488010
Matrix: CT
Collect Date: 27-OCT-04 15:00
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.264	+/-0.107	0.120	0.800	pCi/g		AKB	11/01/04	1229	377467	1
Americium-241	U	-0.0099	+/-0.0748	0.132	1.00	pCi/g						
Bismuth-212	U	0.109	+/-0.177	0.223	0.500	pCi/g						
Bismuth-214		0.274	+/-0.0577	0.0563	0.200	pCi/g						
Cesium-134	U	0.0261	+/-0.028	0.032	10.0	pCi/g						
Cesium-137	U	-0.00879	+/-0.0173	0.0305	20.0	pCi/g						
Cobalt-60	U	-0.008	+/-0.0155	0.0273	3.00	pCi/g						
Europium-152	U	-0.0329	+/-0.0438	0.0797	9.00	pCi/g						
Europium-154	U	0.00349	+/-0.0538	0.104	7.00	pCi/g						
Europium-155	U	0.00435	+/-0.0482	0.0934	300	pCi/g						
Lead-212		0.299	+/-0.0462	0.047	0.100	pCi/g						
Lead-214		0.275	+/-0.066	0.067	0.100	pCi/g						
Manganese-54	U	-0.000622	+/-0.0169	0.0325	2.00	pCi/g						
Niobium-94	U	-0.0132	+/-0.016	0.0269	0.300	pCi/g						
Potassium-40		5.62	+/-0.620	0.267	1.00	pCi/g						
Radium-226		0.274	+/-0.0577	0.0563	1.00	pCi/g						
Silver-108m	U	0.00796	+/-0.015	0.0301	1.00	pCi/g						
Thallium-208		0.100	+/-0.0273	0.0343	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0474	+/-0.0329	0.0594	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		28.3	+/-2.10	2.19	3.00	pCi/g		DAJ1	11/01/04	2325	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-04
Sample ID: 124488011
Matrix: CT
Collect Date: 27-OCT-04 15:00
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.476	+/-0.106	0.0948	0.800	pCi/g		AKB	11/01/04	1230	377467	1
Americium-241	U	0.119	+/-0.122	0.179	1.00	pCi/g						
Bismuth-212		0.269	+/-0.230	0.221	0.500	pCi/g						
Bismuth-214		0.299	+/-0.0744	0.0538	0.200	pCi/g						
Cesium-134	U	0.0264	+/-0.0241	0.0341	10.0	pCi/g						
Cesium-137	U	-0.0218	+/-0.0154	0.025	20.0	pCi/g						
Cobalt-60	U	0.0123	+/-0.0315	0.0343	3.00	pCi/g						
Europium-152	U	-0.013	+/-0.0507	0.0791	9.00	pCi/g						
Europium-154	U	0.00669	+/-0.0469	0.0887	7.00	pCi/g						
Europium-155	U	0.0065	+/-0.0557	0.102	300	pCi/g						
Lead-212		0.432	+/-0.0513	0.048	0.100	pCi/g						
Lead-214		0.395	+/-0.0665	0.0616	0.100	pCi/g						
Manganese-54	U	-0.00553	+/-0.0153	0.0269	2.00	pCi/g						
Niobium-94	U	-0.0105	+/-0.0135	0.0233	0.300	pCi/g						
Potassium-40		7.44	+/-0.613	0.235	1.00	pCi/g						
Radium-226		0.299	+/-0.0744	0.0538	1.00	pCi/g						
Silver-108m	U	-0.00586	+/-0.0141	0.0247	1.00	pCi/g						
Thallium-208		0.127	+/-0.0278	0.0284	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0412	+/-0.0333	0.0607	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		50.6	+/-2.63	2.13	3.00	pCi/g		DAJ1	11/01/04	2357	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	BJ1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-04
Sample ID: 124488011
Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-1C-05
Sample ID: 124488012
Matrix: CT
Collect Date: 27-OCT-04 15:00
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.420	+/-0.111	0.065	0.800	pCi/g		AKB	11/01/04	1230	377467	1
Americium-241	U	0.000909	+/-0.0424	0.0748	1.00	pCi/g						
Bismuth-212		0.348	+/-0.153	0.148	0.500	pCi/g						
Bismuth-214		0.432	+/-0.0708	0.037	0.200	pCi/g						
Cesium-134	UUI	0.00	+/-0.0233	0.0232	10.0	pCi/g						
Cesium-137	U	-0.0126	+/-0.0105	0.0176	20.0	pCi/g						
Cobalt-60	U	0.00483	+/-0.0117	0.0217	3.00	pCi/g						
Europium-152	U	0.00165	+/-0.0317	0.0512	9.00	pCi/g						
Europium-154	U	0.020	+/-0.0407	0.0658	7.00	pCi/g						
Europium-155	UUI	0.00	+/-0.0449	0.0612	300	pCi/g						
Lead-212		0.453	+/-0.0474	0.0337	0.100	pCi/g						
Lead-214		0.461	+/-0.0559	0.0367	0.100	pCi/g						
Manganese-54	U	-0.00877	+/-0.0106	0.0178	2.00	pCi/g						
Niobium-94	U	-0.000797	+/-0.00934	0.0168	0.300	pCi/g						
Potassium-40		8.07	+/-0.717	0.180	1.00	pCi/g						
Radium-226		0.432	+/-0.0708	0.037	1.00	pCi/g						
Silver-108m	U	-0.00693	+/-0.0101	0.0173	1.00	pCi/g						
Thallium-208		0.149	+/-0.028	0.0178	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0283	+/-0.0428	0.0803	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		56.0	+/-2.86	2.27	3.00	pCi/g		DAJ1	11/02/04	0029	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	BJ1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-2C-01
Sample ID: 124488013
Matrix: CT
Collect Date: 27-OCT-04 15:15
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.464	+/-0.190	0.191	0.800	pCi/g		AKB	11/01/04	1330	377467	1
Americium-241	U	-0.0237	+/-0.0756	0.126	1.00	pCi/g						
Bismuth-212	U	0.190	+/-0.326	0.412	0.500	pCi/g						
Bismuth-214		0.415	+/-0.119	0.0922	0.200	pCi/g						
Cesium-134	U	0.00786	+/-0.0417	0.0737	10.0	pCi/g						
Cesium-137	U	0.0434	+/-0.072	0.0545	20.0	pCi/g						
Cobalt-60	U	-0.00482	+/-0.0291	0.0546	3.00	pCi/g						
Europium-152	U	0.0373	+/-0.0816	0.142	9.00	pCi/g						
Europium-154	U	-0.0362	+/-0.0838	0.149	7.00	pCi/g						
Europium-155	U	-0.0236	+/-0.0772	0.141	300	pCi/g						
Lead-212		0.342	+/-0.0984	0.0952	0.100	pCi/g						
Lead-214		0.509	+/-0.123	0.105	0.100	pCi/g						
Manganese-54	U	0.0268	+/-0.0315	0.0651	2.00	pCi/g						
Niobium-94	U	0.0243	+/-0.0299	0.0522	0.300	pCi/g						
Potassium-40		7.84	+/-1.24	0.522	1.00	pCi/g						
Radium-226		0.415	+/-0.119	0.0922	1.00	pCi/g						
Silver-108m	U	-0.018	+/-0.0249	0.0434	1.00	pCi/g						
Thallium-208		0.180	+/-0.0664	0.0559	0.080	pCi/g						
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.055	+/-0.040	0.0729	0.100	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.27	+/-1.03	2.21	3.00	pCi/g		DAJ1	11/02/04	0101	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	
3	EPA 906.0 Modified	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-3C-01
Sample ID: 124488014
Matrix: CT
Collect Date: 27-OCT-04 15:25
Receive Date: 29-OCT-04
Collector: Client

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.801	+/-0.240	0.205	0.800	pCi/g		AKB 11/01/04	1333	377467	1
Americium-241	U	-0.0345	+/-0.409	0.571	1.00	pCi/g					
Bismuth-212		0.888	+/-0.414	0.473	0.500	pCi/g					
Bismuth-214		0.615	+/-0.133	0.103	0.200	pCi/g					
Cesium-134		0.0809	+/-0.0613	0.0759	10.0	pCi/g					
Cesium-137	U	-0.00818	+/-0.0334	0.0588	20.0	pCi/g					
Cobalt-60	U	0.0241	+/-0.0275	0.0563	3.00	pCi/g					
Europium-152	U	0.00884	+/-0.0771	0.146	9.00	pCi/g					
Europium-154	U	0.0637	+/-0.0903	0.177	7.00	pCi/g					
Europium-155	U	0.149	+/-0.164	0.277	300	pCi/g					
Lead-212		0.759	+/-0.0941	0.0898	0.100	pCi/g					
Lead-214		0.593	+/-0.124	0.104	0.100	pCi/g					
Manganese-54	U	-0.0223	+/-0.0323	0.057	2.00	pCi/g					
Niobium-94	U	0.00757	+/-0.0346	0.062	0.300	pCi/g					
Potassium-40		21.9	+/-1.41	0.498	1.00	pCi/g					
Radium-226		0.615	+/-0.133	0.103	1.00	pCi/g					
Silver-108m	U	-0.0161	+/-0.0283	0.0508	1.00	pCi/g					
Thallium-208		0.291	+/-0.0595	0.0603	0.080	pCi/g					
Uranium-235		1.35	+/-0.396	0.568	0.500	pCi/g					
Uranium-238		113	+/-5.51	4.14	1.00	pCi/g					
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90	U	0.0213	+/-0.0323	0.0605	0.100	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		12.4	+/-1.58	2.24	3.00	pCi/g		DAJ1 11/02/04	0132	377502	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	
2	EPA 905.0 Modified	

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: **Soils and Concrete PO# 002337**

Report Date: November 2, 2004

Client Sample ID: 2228-0000-022-C-3C-01
Sample ID: 124488014

Project: YANK01304
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
3	EPA 906.0 Modified									

GENERAL ENGINEERING LABORATORIES, LLC

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QC Summary

Report Date: November 2, 2004
Page 1 of 4

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 377467										
QC1200731238 124488001 DUP										
Actinium-228	UUI	0.00 +/-0.160		0.466 +/-0.104	pCi/g	2			AKB	11/01/04 20:49
Americium-241	U	-0.00349 +/-0.161	U	0.0245 +/-0.0965	pCi/g	267				
Bismuth-212	U	0.259 +/-0.226		0.287 +/-0.160	pCi/g	11				
Bismuth-214		0.421 +/-0.0843		0.357 +/-0.0505	pCi/g	16				
Cesium-134	U	0.0121 +/-0.0223	UUI	0.00 +/-0.0197	pCi/g	75				
Cesium-137	U	0.0233 +/-0.0238	U	-0.00668 +/-0.0135	pCi/g	360*		(0%-20%)		
Cobalt-60	U	0.0075 +/-0.0208	U	0.00751 +/-0.0126	pCi/g	0		(0%-20%)		
Europium-152	U	-0.0231 +/-0.0536	U	-0.00781 +/-0.0313	pCi/g	N/A				
Europium-154	U	0.0102 +/-0.0605	U	-0.0149 +/-0.0334	pCi/g	1060				
Europium-155	U	0.0585 +/-0.0562	U	0.0302 +/-0.0407	pCi/g	64				
Lead-212		0.495 +/-0.0629		0.448 +/-0.0378	pCi/g	10				
Lead-214		0.429 +/-0.0968		0.452 +/-0.0575	pCi/g	5				
Manganese-54	U	0.00473 +/-0.017	U	-0.00147 +/-0.0117	pCi/g	380				
Niobium-94	U	-0.00108 +/-0.0174	U	-0.00344 +/-0.0105	pCi/g	N/A				
Potassium-40		8.61 +/-0.904		7.56 +/-0.497	pCi/g	13		(0%-20%)		
Radium-226		0.421 +/-0.0843		0.357 +/-0.0505	pCi/g	16		(0%-20%)		
Silver-108m	U	0.0104 +/-0.0169	U	-0.00191 +/-0.0105	pCi/g	289				
Thallium-208		0.122 +/-0.0379		0.144 +/-0.0255	pCi/g	16				
Uranium-235	U	0.163 +/-0.189	U	0.0125 +/-0.091	pCi/g	171*		(0%-20%)		
Uranium-238	U	-0.134 +/-1.28	U	0.727 +/-0.757	pCi/g	290				
QC1200731239 LCS										
Actinium-228			U	0.0559	pCi/g					11/01/04 14:56

QC Summary

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 377467										
				+/-0.403						
Americium-241	23.4			23.5	pCi/g		101	(75%-125%)	AKB	11/01/04 14:56
				+/-1.25						
Bismuth-212			U	-0.0582	pCi/g					
				+/-0.825						
Bismuth-214			U	0.00397	pCi/g					
				+/-0.151						
Cesium-134			U	-0.0579	pCi/g					
				+/-0.0998						
Cesium-137	9.16			9.67	pCi/g		106	(75%-125%)		
				+/-0.362						
Cobalt-60	13.6			14.9	pCi/g		109	(75%-125%)		
				+/-0.506						
Europium-152			U	0.222	pCi/g					
				+/-0.221						
Europium-154			U	0.0409	pCi/g					
				+/-0.200						
Europium-155			U	-0.318	pCi/g					
				+/-0.277						
Lead-212			U	-0.00791	pCi/g					
				+/-0.125						
Lead-214			U	0.0636	pCi/g					
				+/-0.165						
Manganese-54			U	-0.0521	pCi/g					
				+/-0.0895						
Niobium-94			U	0.0208	pCi/g					
				+/-0.0792						
Potassium-40			U	0.588	pCi/g					
				+/-0.675						
Radium-226			U	0.00397	pCi/g			(75%-125%)		
				+/-0.151						
Silver-108m			U	0.0147	pCi/g					
				+/-0.0858						
Thallium-208			U	0.00372	pCi/g					
				+/-0.078						
Uranium-235			U	-0.232	pCi/g			(75%-125%)		
				+/-0.433						
Uranium-238			U	-6.31	pCi/g					
				+/-4.31						
QC1200731237 MB										
Actinium-228			U	0.0412	pCi/g					11/01/04 13:34
				+/-0.117						
Americium-241			U	0.000754	pCi/g					
				+/-0.0265						
Bismuth-212			U	-0.0092	pCi/g					
				+/-0.205						
Bismuth-214			U	0.0423	pCi/g					

QC Summary

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 377467										
				+/-0.0552						
Cesium-134			U	0.0168 +/-0.0249	pCi/g				AKB	11/01/04 13:34
Cesium-137			U	-0.000879 +/-0.0237	pCi/g					
Cobalt-60			U	-0.0181 +/-0.0262	pCi/g					
Europium-152			U	0.00277 +/-0.0569	pCi/g					
Europium-154			U	0.025 +/-0.0722	pCi/g					
Europium-155			U	0.00948 +/-0.0389	pCi/g					
Lead-212			U	0.0392 +/-0.0616	pCi/g					
Lead-214			U	0.000121 +/-0.0408	pCi/g					
Manganese-54			U	0.00116 +/-0.0199	pCi/g					
Niobium-94			U	0.0031 +/-0.0233	pCi/g					
Potassium-40			UUI	0.00 +/-0.441	pCi/g					
Radium-226			U	0.0423 +/-0.0552	pCi/g					
Silver-108m			U	0.0166 +/-0.0211	pCi/g					
Thallium-208			U	0.017 +/-0.0243	pCi/g					
Uranium-235			U	0.069 +/-0.122	pCi/g					
Uranium-238			U	0.0706 +/-0.406	pCi/g					
Rad Gas Flow										
Batch 377485										
QC1200731297 124488001 DUP										
Strontium-90		0.0628 +/-0.0341	U	0.0219 +/-0.0368	pCi/g	97*		(0%-20%)	JMB1	11/02/04 03:59
QC1200731299 LCS										
Strontium-90	3.88			4.11 +/-0.302	pCi/g		106	(75%-125%)		11/02/04 09:52
QC1200731296 MB										
Strontium-90			U	0.00336 +/-0.0262	pCi/g					11/02/04 03:59
QC1200731298 124488001 MS										
Strontium-90	7.78	0.0628 +/-0.0341		7.13 +/-0.569	pCi/g		91	(75%-125%)		11/02/04 09:52

QC Summary

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 377502										
QC1200731578 124488008 DUP										
Tritium		8.20 +/-1.34		11.2 +/-1.51	pCi/g	31*		(0%-20%)	DAJ1	11/02/04 02:36
QC1200731323 LCS										
Tritium	3.19			3.18 +/-0.340	pCi/g		100	(75%-125%)		11/02/04 03:40
QC1200731320 MB										
Tritium			U	0.0118 +/-0.190	pCi/g					11/02/04 02:04
QC1200731579 124488008 MS										
Tritium	13.5	8.20 +/-1.34		24.6 +/-2.78	pCi/g		121	(75%-125%)		11/02/04 03:08

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

CONNECTICUT YANKEE ATOMIC POWER COMPANY
SURVEY RECORD FORM

Surveyor Name: (Printed): J Doruhla
Surveyor Name: (Signature): [signature]
Location: Pre-Packaging Survey (RM 0010 Rev.1)

Date: 5/4/04 Time: 1430 Log #:
Area #: 9412 Map.#: N/A N/A

Item	Contact dose rate mR/hr	Loose Contamination dpm/100cm2 βγ	Loose Contamination dpm/100cm2 α	Tac-Roller results ccpm/frisk	Container #	Comments
9108-0000-112-C-01	<5	<MDA	<MDA	N/A	N/A	Soil
9108-0000-112-C-02	<5	<MDA	<MDA			
9108-0000-112-C-03	<5	<MDA	<MDA			
9108-0000-112-C-04	<5	<MDA	<MDA			
9108-0000-113-C-01	<5	<MDA	<MDA			
9108-0000-113-C-02	<5	<MDA	<MDA			
9108-0000-114-C-01	<5	<MDA	<MDA			
9108-0000-114-C-02	<5	<MDA	<MDA			
9108-0000-115-C-01	<5	<MDA	<MDA			
9108-0000-115-C-02	<5	<MDA	<MDA	N/A	N/A	Soil
BKG 5 μR/HR						

INSTRUMENTS USED

MODEL/SERIAL#	CAL DUE	PROBE/SERIAL#	CAL DUE
Bicron/24478	5/4/04	N/A	N/A
L2200/144772	7/22/04	HP 210 HB-2	
L2200/145795	8/5/04	PR 16616583	
N/A			N/A

REASON FOR SURVEY
- ☐ ROUTINE
- ☐ RWP
- ☑ OTHER: Pre Packaged Survey of Soil Sample to be Shipped

AirSample Control #: N/A Total DAC Fraction: N/A

CONTAMINATION RESULTS (SMEARS) dpm/100cm²

βγ MDA= 174.63 α MDA= 15.77

SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha	SAMPLE #	RESULTS Beta-Gamma	RESULTS Alpha
N/A			N/A		

Smear Continuation Sheet Used. ☐ YES ☑ NO

Legend:

Dose rates are gamma and are in mRem/hr, unless otherwise noted.

- Large Area Swipe Location
- AirSample Location
- Smear Location
- Contact Exposure Rate
- General Area Exposure Rate
- Indicates Boundary
- RA - Radiation Area
- SOP - Step Off Pad
- HRA - High Radiation Area
- LHRA - Locked High Radiation Area
- HPA - Hot Particle Area
- CA - Contaminated Area
- HCA - High Contamination Area
- ARA - Airborne Radioactivity Area
- RM - Radioactive Material(s)
- RCA - Radiologically Controlled Area

HP MANAGER OR DESIGNEE REVIEW: [signature] DATE: 5/4/04

Standing Order HPM 02-002
Attachment B
Sample Notification

To: Sarah Kozlik

From: P Hollenbeck Tel Number: 860-267-3923

Date: 5/4/04

Please be advised that the samples in this package may contain trace amounts of radioactive material that has been determined to be below the DOT requirement to be regulated in commerce. Please handle them with standard laboratory practices.

Signature P Hollenbeck

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00063

Project Name: Subsurface Soil Sampling

Contact Name & Phone: J. Grinley

Analytical Lab (Name, City, State): On-Site Lab

Priority: ☐ 30 D. ☐ 15 D. ☐ 7 D.
Other: ASAP

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM						Comment, Preservation	Lab Sample ID
9108-0000-112-C-01	4/23/04	1010	TS	CR	1LM	X						2" ↓ from Top	0404 28001
9108-0000-112-C-02	4/23/04	1015	TS	CR	1LM	X						2" ↓	0404 28002
9108-0000-112-C-03	4/23/04	1020	TS	CR	1LM	X						2 1/2" ↓	0404 28003
9108-0000-112-C-04	4/23/04	1030	TS	CR	1LM	X						2" ↓	0404 28004
9108-0000-113-C-01	4/23/04	1050	TS	CR	1LM	X						1" ↓	0404 28005
9108-0000-113-C-02	4/23/04	1055	TS	CR	1LM	X						1 1/2" ↓	0404 28006
9108-0000-114-C-01	4/23/04	1110	TS	CR	1LM	X							0404 28007
9108-0000-114-C-02	4/23/04	1325	TS	CR	1LM	X							0404 28008
9108-0000-115-C-01	4/23/04	1330	TS	CR	1LM	X							0404 28009
9108-0000-115-C-02	4/23/04	1335	TS	CR	1LM	X							0404 28010

NOTES: PO #: MSR #: ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Samples Shipped Via:
☐ Fed Ex
☐ UPS
☒ Hand
☐ Other _____

Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By [signature]	Date/Time 4/27/04 1025
2) Received By [signature]	Date/Time 4/27/4 1025
3) Relinquished By [signature]	Date/Time 05/4/04 1350
4) Received By [signature]	Date/Time 5/4/04 1025
5) Relinquished By	Date/Time
6) Received By	Date/Time

****
28-APR-2004 00:27:17.01

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-112-C-01
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428001 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:10 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 9.45000E+02 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 00:10 * DEADTIME (%) : 0.1%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.5 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428001_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	77.56	108	199	0.98	155.19	152	7	23.8		PB-214
										PB-212
0	89.85	56	143	1.41	179.74	178	5	34.7		
5	238.64	205	149	0.97	476.91	473	16	11.3	9.98E-01	PB-212
5	242.06	73	216	1.87	483.74	473	16	44.0		PB-214
0	294.95	76	101	1.02	589.40	586	7	24.6		PB-214
0	352.10	159	134	1.04	703.57	699	11	16.3		PB-214
0	583.61	88	71	0.98	1166.22	1160	12	22.0		TL-208
0	609.47	116	67	1.04	1217.91	1213	11	16.5		BI-214
0	661.80	1915	118	1.45	1322.52	1315	16	2.6		CS-137
0	1120.67	45	46	1.21	2240.18	2233	12	32.0		BI-214
0	1173.61	1078	53	1.94	2346.08	2336	21	3.5		CO-60
0	1332.86	1017	16	2.20	2664.74	2654	19	3.3		CO-60
0	1461.34	258	0	2.06	2921.91	2914	18	6.2		K-40

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.210E+01	7.863E-01	1.271E-01	2.356E-03	95.203
CO-60	4.616E+00	1.246E-01	4.320E-02	7.993E-04	106.836
CS-137	5.728E+00	1.984E-01	7.211E-02	1.635E-03	79.441
TL-208	2.386E-01	5.288E-02	6.210E-02	1.473E-03	3.842
PB-212	5.357E-01	6.266E-02	9.252E-02	2.657E-03	5.790
BI-214	6.306E-01	9.571E-02	1.353E-01	3.183E-03	4.662
PB-214	6.189E-01	8.190E-02	1.170E-01	2.351E-03	5.290

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-1.341E-01		1.668E-01	5.181E-01	1.154E-02	-0.259
MN-54	-1.117E-02		2.035E-02	7.560E-02	1.363E-03	-0.148
NB-94	-7.648E-03		2.104E-02	7.874E-02	1.357E-03	-0.097
RU-106	-9.376E-02		1.592E-01	6.040E-01	1.412E-02	-0.155
AG-108M	-7.879E-03		1.812E-02	6.902E-02	1.620E-03	-0.114
AG-110M	1.972E-03		2.036E-02	7.405E-02	1.685E-03	0.027
SB-125	2.062E-02		5.768E-02	1.953E-01	4.035E-03	0.106
CS-134	-1.402E-03		1.578E-02	6.157E-02	1.452E-03	-0.023
EU-152	4.647E-02		4.723E-02	2.528E-01	4.698E-03	0.184
EU-154	1.348E-03		5.864E-02	2.282E-01	7.127E-03	0.006
EU-155	2.956E-02		4.477E-02	1.665E-01	4.115E-03	0.178
BI-212	2.778E-01		1.630E-01	6.799E-01	1.428E-02	0.409
RA-223	8.206E-02		9.524E-02	3.387E-01	9.020E-03	0.242
RA-226	6.437E-01		3.773E-01	1.386E+00	3.448E-02	0.464
AC-228	2.645E-01		1.090E-01	4.443E-01	7.364E-03	0.595
TH-228	9.339E-01		1.098E+00	4.099E+00	9.870E-02	0.228
PA-234	3.042E-01	+	7.270E-02	1.193E-01	2.754E-03	2.549
TH-234	1.982E-02		5.074E-01	1.886E+00	1.576E-01	0.011
U-235	1.927E-02		2.239E-02	7.994E-02	1.985E-03	0.241
AM-241	1.729E-01		7.130E-02	2.845E-01	9.252E-03	0.608

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 00:27
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-112-C-01

SAMPLE No. : 040428001
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 00:10:20
SAMPLE TIME : 23-APR-2004 10:10:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 9.45000E+02
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.54	1.210E+01	QA Results OK
CO-60	1332.49	0.37	4.616E+00	QA Results OK
CS-137	661.65	0.15	5.728E+00	QA Results OK
TL-208	583.14	0.47	2.386E-01	QA Results OK
PB-212	238.63	0.01	5.357E-01	QA Results OK
BI-214	609.31	0.16	6.306E-01	QA Results OK
PB-214	351.92	0.18	6.189E-01	QA Results OK
AVG ENERGY DIFF =		0.27	2.447E+01 = TOTAL GAMMA ACTIVITY	

77.56 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
89.85	56.	1.41	2.171E+00	2.297E-03	34.7	~~P~~ U	BI-214 AC-228	2.307E+01 2.976E+00

Total Unidentified/Rejected Peaks = 1
% Unidentified/Rejected Peaks = 7.69

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

Performed by: [signature]

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 00:48:12.68

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-112-C-02
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428002 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:15 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 9.25000E+02 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 00:31 * DEADTIME (%) : 0.0%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.3 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428002_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
3	74.97	75	92	0.97	150.01	144	16	23.3	4.36E-01	PB-212
										PB-214
3	77.16	96	110	1.18	154.38	144	16	21.4		PB-214
										PB-212
2	87.29	45	83	1.10	174.62	171	12	38.8	2.11E+00	PB-212
2	89.81	39	91	1.11	179.66	171	12	42.0		
0	92.83	60	84	1.34	185.69	183	7	28.6		
0	185.57	73	90	1.46	370.90	364	12	28.5		RA-226
4	238.59	206	59	1.01	476.81	473	25	8.9	1.10E+00	PB-212
4	241.70	61	74	1.70	483.03	473	25	33.4		PB-214
0	295.55	52	52	0.91	590.61	586	8	27.6		PB-214
0	352.07	162	52	1.40	703.52	696	15	12.5		PB-214
0	510.77	58	33	1.10	1020.64	1015	12	23.6		
0	583.83	57	59	1.60	1166.67	1160	16	33.2		TL-208
0	609.40	100	36	1.66	1217.78	1210	16	16.8		BI-214
0	661.73	473	34	1.59	1322.37	1315	12	5.2		CS-137
0	912.04	83	9	0.89	1822.87	1813	20	14.4		AC-228
0	1173.53	226	20	1.80	2345.92	2340	16	7.8		CO-60
0	1332.90	242	8	2.26	2664.84	2659	15	6.9		CO-60

Sample ID : 040428002 Acquisition date : 28-APR-2004 00:31:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1461.28	234	7	2.11	2921.78	2915	13	6.9		K-40

Sample ID : 040428002
Acquisition date : 28-APR-2004 00:31:16

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.119E+01	8.018E-01	5.835E-01	1.081E-02	19.181
CO-60	1.051E+00	5.611E-02	4.414E-02	8.166E-04	23.814
CS-137	1.447E+00	8.209E-02	5.536E-02	1.255E-03	26.135
TL-208	1.575E-01	5.247E-02	4.937E-02	1.171E-03	3.191
PB-212	5.542E-01	5.047E-02	6.211E-02	1.784E-03	8.922
BI-214	5.230E-01	8.847E-02	8.785E-02	2.067E-03	5.953
PB-214	5.697E-01	6.476E-02	7.380E-02	1.483E-03	7.720
RA-226	2.285E+00	6.536E-01	7.266E-01	1.808E-02	3.144
AC-228	1.023E+00	1.486E-01	1.412E-01	2.341E-03	7.245

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-7.373E-02		1.047E-01	3.365E-01	7.496E-03	-0.219
MN-54	-1.521E-02		1.205E-02	4.355E-02	7.851E-04	-0.349
NB-94	1.580E-02		1.180E-02	5.520E-02	9.511E-04	0.286
RU-106	2.306E-02		9.198E-02	3.989E-01	9.327E-03	0.058
AG-108M	1.602E-03		1.302E-02	5.048E-02	1.185E-03	0.032
AG-110M	1.071E-02		1.203E-02	5.065E-02	1.153E-03	0.212
SB-125	2.476E-04		3.520E-02	1.233E-01	2.549E-03	0.002
CS-134	5.029E-03		1.002E-02	4.154E-02	9.794E-04	0.121
EU-152	2.296E-02		5.411E-02	2.583E-01	4.800E-03	0.089
EU-154	2.078E-02		3.958E-02	1.761E-01	5.500E-03	0.118
EU-155	2.843E-02		3.450E-02	1.337E-01	3.305E-03	0.213
BI-212	3.308E-01		1.310E-01	5.949E-01	1.250E-02	0.556
RA-223	2.436E-03		6.689E-02	2.364E-01	6.294E-03	0.010
TH-228	8.083E-01		7.974E-01	3.118E+00	7.509E-02	0.259
PA-234	2.739E-01	+	5.885E-02	9.743E-02	2.249E-03	2.811
TH-234	5.393E-01		4.014E-01	1.621E+00	1.355E-01	0.333
U-235	1.386E-01	+	3.964E-02	6.630E-02	1.646E-03	2.090
AM-241	-4.011E-02		4.565E-02	1.660E-01	5.401E-03	-0.242

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 00:48
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-112-C-02

SAMPLE No. : 040428002
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 00:31:16
SAMPLE TIME : 23-APR-2004 10:15:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 9.25000E+02
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.48	1.119E+01	QA Results OK
CO-60	1332.49	0.42	1.051E+00	QA Results OK
CS-137	661.65	0.08	1.447E+00	QA Results OK
TL-208	583.14	0.69	1.575E-01	QA Results OK
PB-212	238.63	-0.04	5.542E-01	QA Results OK
BI-214	609.31	0.09	5.230E-01	QA Results OK
PB-214	351.92	0.15	5.697E-01	QA Results OK
RA-226	186.21	-0.65	2.285E+00	QA Results OK
AC-228	911.07	0.97	1.023E+00	QA Results OK
AVG ENERGY DIFF =		0.24	1.880E+01 = TOTAL GAMMA ACTIVITY	

74.97 KeV Peak was used in identifying 2 isotopes
77.16 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
89.81	39.	1.11	1.532E+00	1.657E-03	42.0	P	BI-214	1.663E+01
						P	AC-228	2.145E+00
92.83	60.	1.34	2.244E+00	2.426E-03	28.6	P	PB_X-RAY	0.000E+00
						P	AC-228	1.885E+00
						U	TH-234	2.440E+00
510.77	58.	1.10	4.171E+00	4.510E-03	23.6	U	ANN-RD	0.000E+00

Total Unidentified/Rejected Peaks = 3
% Unidentified/Rejected Peaks = 16.67

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 00:50:04.21

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-112-C-03
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428003 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:20 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 9.06000E+02 GM
****

DETECTOR : DET 5 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 17:37 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00720E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 00:33 * DEADTIME (%) : 0.1%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.7 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428003_ADC5_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	63.60	112	269	1.07	127.32	123	10	28.9		TH-234
2	74.87	129	173	0.88	149.83	145	14	17.4	1.84E+00	PB-212
										PB-214
2	77.15	235	201	1.06	154.38	145	14	11.6		PB-214
										PB-212
3	87.19	101	204	1.30	174.43	171	12	26.1	3.13E+00	PB-212
3	90.07	54	141	1.02	180.19	171	12	37.8		
0	92.76	113	168	1.12	185.56	183	7	21.1		
0	186.31	59	185	1.44	372.43	367	11	46.4		RA-226
3	238.72	285	111	1.15	477.12	470	18	8.5	7.61E-01	PB-212
3	241.78	63	130	1.57	483.22	470	18	36.9		PB-214
0	295.51	91	141	1.28	590.58	585	11	27.6		PB-214
0	338.57	93	118	2.25	676.60	671	14	26.6		
0	352.11	187	94	1.24	703.66	699	11	12.7		PB-214
0	583.89	87	64	1.33	1166.83	1159	16	23.2		TL-208
0	609.58	132	53	1.01	1218.17	1213	11	13.7		BI-214
0	661.91	1067	48	1.50	1322.76	1315	16	3.4		CS-137
0	912.27	91	24	1.67	1823.25	1818	14	15.5		
0	1173.83	653	42	1.88	2346.30	2339	14	4.4		CO-60

Post-NID Peak Search Report (continued)

Sample ID : 040428003
Acquisition date : 28-APR-2004 00:33:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1333.21	595	17	1.88	2665.11	2659	14	4.4		CO-60
0	1461.51	301	9	2.25	2921.78	2916	12	6.1		K-40

Sample ID : 040428003
Acquisition date : 28-APR-2004 00:33:07

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.010E+01	6.420E-01	3.975E-01	7.129E-03	25.415
CO-60	1.977E+00	6.617E-02	5.157E-02	9.241E-04	38.339
CS-137	2.307E+00	9.303E-02	4.087E-02	8.941E-04	56.434
TL-208	1.707E-01	3.979E-02	3.001E-02	6.870E-04	5.689
PB-212	5.612E-01	4.755E-02	6.441E-02	1.751E-03	8.713
BI-214	4.898E-01	6.806E-02	6.551E-02	1.488E-03	7.476
PB-214	5.469E-01	6.101E-02	8.031E-02	1.535E-03	6.809
RA-226	1.354E+00	6.295E-01	7.532E-01	1.799E-02	1.798
TH-234	1.844E+00	5.536E-01	6.282E-01	5.207E-02	2.935

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	2.248E-01		8.929E-02	3.739E-01	8.043E-03	0.601
MN-54	-1.769E-02		1.312E-02	4.698E-02	8.178E-04	-0.377
NB-94	1.989E-02		1.330E-02	5.683E-02	9.462E-04	0.350
RU-106	3.626E-02		1.011E-01	3.605E-01	8.133E-03	0.101
AG-108M	-9.170E-04		1.153E-02	3.886E-02	8.804E-04	-0.024
AG-110M	9.650E-03		9.454E-03	3.949E-02	8.670E-04	0.244
SB-125	5.797E-02		3.151E-02	1.228E-01	2.445E-03	0.472
CS-134	-8.239E-05		1.113E-02	3.759E-02	8.553E-04	-0.002
EU-152	3.741E-02		4.704E-02	2.220E-01	3.995E-03	0.168
EU-154	-4.009E-02		3.317E-02	1.172E-01	3.622E-03	-0.342
EU-155	4.220E-02		2.863E-02	1.085E-01	2.620E-03	0.389
BI-212	1.518E-01		1.044E-01	4.416E-01	8.947E-03	0.344
RA-223	-1.139E-01		6.380E-02	1.934E-01	4.866E-03	-0.589
AC-228	3.234E-01		6.439E-02	3.002E-01	4.813E-03	1.077
TH-228	2.642E-02		5.422E-01	1.933E+00	4.532E-02	0.014
PA-234	2.870E-01	+	3.378E-02	5.606E-02	1.249E-03	5.118
U-235	8.214E-02	+	3.818E-02	5.780E-02	1.379E-03	1.421
AM-241	3.567E-02		2.026E-02	7.742E-02	2.308E-03	0.461

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 00:50
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-112-C-03

SAMPLE No. : 040428003
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 00:33:07
SAMPLE TIME : 23-APR-2004 10:20:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 9.06000E+02
DETECTOR : DET 5

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.71	1.010E+01	QA Results OK
CO-60	1332.49	0.73	1.977E+00	QA Results OK
CS-137	661.65	0.26	2.307E+00	QA Results OK
TL-208	583.14	0.75	1.707E-01	QA Results OK
PB-212	238.63	0.10	5.612E-01	QA Results OK
BI-214	609.31	0.27	4.898E-01	QA Results OK
PB-214	351.92	0.19	5.469E-01	QA Results OK
RA-226	186.21	0.10	1.354E+00	QA Results OK
TH-234	63.29	0.31	1.844E+00	QA Results OK
AVG ENERGY DIFF =		0.38	1.935E+01	= TOTAL GAMMA ACTIVITY

74.87 KeV Peak was used in identifying 2 isotopes
77.15 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
90.07	54.	1.02	1.067E+00	1.177E-03	37.8	R	BI-214	1.182E+01
						R	AC-228	1.525E+00
92.76	113.	1.12	2.227E+00	2.458E-03	21.1	P	PB_X-RAY	0.000E+00
						R	AC-228	1.911E+00
						P	TH-234	2.474E+00
338.57	93.	2.25	3.379E+00	3.730E-03	26.6	R	AC-228	8.901E-01
912.27	91.	1.67	7.433E+00	8.204E-03	15.5	U		

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Total Unidentified/Rejected Peaks = 4
% Unidentified/Rejected Peaks = 21.05

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 01:10:18.96

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-112-C-04
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428004 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:30 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.07600E+03 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 00:53 * DEADTIME (%) : 0.0%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.3 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428004_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	93.17	95	155	2.05	186.36	183	10	26.6		
0	238.71	168	232	0.95	477.06	473	10	18.6		PB-212
0	274.58	84	173	8.30	548.70	537	24	43.2		
0	295.20	85	88	1.24	589.91	584	10	23.2		PB-214
0	339.12	52	93	0.65	677.65	671	14	42.1		AC-228
0	351.96	153	62	1.25	703.31	696	12	13.0		PB-214
0	510.79	65	36	1.52	1020.68	1016	12	22.2		
0	583.12	70	24	0.97	1165.24	1159	12	18.4		TL-208
0	609.49	127	33	1.28	1217.96	1212	13	12.9		BI-214
0	661.78	358	53	1.35	1322.47	1315	15	6.9		CS-137
0	911.51	50	20	1.03	1821.81	1817	10	22.1		AC-228
0	970.18	43	35	2.39	1939.13	1933	16	33.7		
0	1173.58	371	17	1.80	2346.03	2339	14	5.7		CO-60
0	1332.81	326	9	1.92	2664.65	2657	17	5.9		CO-60
0	1461.27	287	4	1.77	2921.77	2914	16	6.1		K-40

Sample ID : 040428004
Acquisition date : 28-APR-2004 00:53:22

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.183E+01	7.545E-01	3.066E-01	5.682E-03	38.585
CO-60	1.345E+00	5.786E-02	5.356E-02	9.910E-04	25.118
CS-137	9.416E-01	6.821E-02	4.459E-02	1.011E-03	21.116
TL-208	1.669E-01	3.098E-02	3.531E-02	8.373E-04	4.727
PB-212	3.854E-01	7.241E-02	8.298E-02	2.383E-03	4.644
BI-214	5.694E-01	7.444E-02	6.704E-02	1.577E-03	8.493
PB-214	5.449E-01	6.226E-02	7.271E-02	1.461E-03	7.494
AC-228	5.389E-01	1.059E-01	1.597E-01	2.648E-03	3.374

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-5.497E-03		1.006E-01	3.462E-01	7.713E-03	-0.016
MN-54	2.892E-03		1.018E-02	4.343E-02	7.828E-04	0.067
NB-94	-4.412E-03		1.565E-02	5.987E-02	1.032E-03	-0.074
RU-106	2.895E-02		8.425E-02	3.637E-01	8.504E-03	0.080
AG-108M	1.258E-02		8.586E-03	3.957E-02	9.288E-04	0.318
AG-110M	-5.255E-03		1.043E-02	3.831E-02	8.718E-04	-0.137
SB-125	3.305E-02		2.858E-02	1.127E-01	2.329E-03	0.293
CS-134	-7.584E-03		1.190E-02	4.243E-02	1.000E-03	-0.179
EU-152	5.720E-03		5.247E-02	2.312E-01	4.298E-03	0.025
EU-154	3.189E-02		3.625E-02	1.645E-01	5.139E-03	0.194
EU-155	2.466E-02		3.479E-02	1.314E-01	3.248E-03	0.188
BI-212	2.284E-01		1.102E-01	4.918E-01	1.033E-02	0.464
RA-223	5.778E-02		5.991E-02	2.243E-01	5.973E-03	0.258
RA-226	2.488E-01		2.619E-01	9.602E-01	2.389E-02	0.259
TH-228	6.456E-01		7.380E-01	2.840E+00	6.840E-02	0.227
PA-234	-7.311E-02		2.581E-02	8.263E-02	1.907E-03	-0.885
TH-234	1.781E-02		4.025E-01	1.509E+00	1.261E-01	0.012
U-235	2.250E-02		1.607E-02	6.005E-02	1.491E-03	0.375
AM-241	6.908E-02		4.527E-02	1.835E-01	5.969E-03	0.376

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:10
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-112-C-04

SAMPLE No. : 040428004
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 00:53:22
SAMPLE TIME : 23-APR-2004 10:30:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 1.07600E+03
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.47	1.183E+01	QA Results OK
CO-60	1332.49	0.33	1.345E+00	QA Results OK
CS-137	661.65	0.13	9.416E-01	QA Results OK
TL-208	583.14	-0.02	1.669E-01	QA Results OK
PB-212	238.63	0.09	3.854E-01	QA Results OK
BI-214	609.31	0.18	5.694E-01	QA Results OK
PB-214	351.92	0.04	5.449E-01	QA Results OK
AC-228	911.07	0.44	5.389E-01	QA Results OK
AVG ENERGY DIFF =		0.21	1.632E+01 = TOTAL GAMMA ACTIVITY	

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
93.17	95.	2.05	3.537E+00	3.287E-03	26.6	P	AC-228	2.554E+00
						U	TH-234	3.306E+00
274.58	84.	8.30	3.727E+00	3.463E-03	43.2	P	BI-214	5.235E+01
						P	PB-214	2.855E+01
510.79	65.	1.52	4.651E+00	4.322E-03	22.2	U	ANN-RD	0.000E+00
970.18	43.	2.39	5.284E+00	4.910E-03	33.7	U		

Total Unidentified/Rejected Peaks = 4
% Unidentified/Rejected Peaks = 26.67

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Performed by: Inez Conrad

Reviewed by: [illegible]

**** End Of Report (2 Pages) ****

****
28-APR-2004 01:11:43.36

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-113-C-01
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428005 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:50 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.11200E+03 GM
****

DETECTOR : DET 5 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 17:37 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00720E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 00:54 * DEADTIME (%) : 0.1%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.9 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428005_ADC5_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	63.20	109	313	1.02	126.52	123	9	30.8		TH-234
4	74.78	212	232	1.19	149.64	143	18	13.7	2.04E+00	PB-212
										PB-214
4	77.20	304	188	0.98	154.49	143	18	9.2		PB-214
										PB-212
0	87.15	80	178	1.08	174.35	172	6	28.5		PB-212
0	92.84	139	258	1.20	185.72	183	10	23.2		
0	185.49	153	285	1.60	370.79	365	16	25.9		RA-226
0	238.65	299	176	0.99	476.99	473	8	9.6		PB-212
0	295.18	189	108	0.98	589.91	584	12	13.2		PB-214
0	338.22	87	108	1.91	675.90	672	11	25.1		AC-228
0	352.02	188	142	1.05	703.48	699	10	14.0		PB-214
0	510.92	73	59	0.94	1021.00	1016	9	22.1		
0	583.59	122	58	1.02	1166.22	1160	11	15.1		TL-208
0	609.63	174	103	1.27	1218.27	1212	13	14.3		BI-214
0	661.88	594	60	1.50	1322.70	1315	16	5.0		CS-137
0	912.00	76	83	1.56	1822.72	1816	12	26.8		AC-228
0	1120.67	47	60	3.79	2239.97	2233	12	35.9		BI-214
0	1173.81	1089	38	1.83	2346.27	2338	17	3.3		CO-60

Sample ID : 040428005 Acquisition date : 28-APR-2004 00:54:51

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1333.13	1025	18	1.78	2664.95	2657	18	3.3		CO-60
0	1461.55	450	23	2.04	2921.87	2913	16	5.3		K-40
0	1765.21	35	5	1.07	3529.55	3523	11	21.0		BI-214

Sample ID : 040428005
Acquisition date : 28-APR-2004 00:54:51

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.229E+01	6.883E-01	3.533E-01	6.337E-03	34.795
CO-60	2.728E+00	7.170E-02	2.859E-02	5.123E-04	95.440
CS-137	1.046E+00	5.742E-02	3.330E-02	7.285E-04	31.409
TL-208	1.952E-01	2.977E-02	3.800E-02	8.699E-04	5.136
PB-212	4.709E-01	4.446E-02	6.251E-02	1.699E-03	7.532
BI-214	5.764E-01	6.613E-02	6.736E-02	1.530E-03	8.558
PB-214	5.472E-01	5.498E-02	7.692E-02	1.470E-03	7.114
RA-226	2.838E+00	7.374E-01	6.137E-01	1.466E-02	4.624
AC-228	5.970E-01	1.103E-01	1.879E-01	3.012E-03	3.177
TH-234	1.459E+00	4.659E-01	5.411E-01	4.485E-02	2.696

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-1.047E-01		9.550E-02	2.908E-01	6.255E-03	-0.360
MN-54	8.660E-03		1.081E-02	4.438E-02	7.724E-04	0.195
NB-94	-8.019E-03		1.359E-02	5.038E-02	8.388E-04	-0.159
RU-106	-1.049E-01		9.381E-02	2.773E-01	6.257E-03	-0.378
AG-108M	-6.226E-03		9.883E-03	3.113E-02	7.053E-04	-0.200
AG-110M	2.051E-03		8.098E-03	3.156E-02	6.930E-04	0.065
SB-125	3.501E-02		2.561E-02	9.683E-02	1.928E-03	0.362
CS-134	1.068E-02		9.880E-03	3.624E-02	8.246E-04	0.295
EU-152	1.623E-02		4.029E-02	1.797E-01	3.233E-03	0.090
EU-154	1.126E-02		2.385E-02	1.052E-01	3.251E-03	0.107
EU-155	7.251E-03		2.383E-02	8.579E-02	2.072E-03	0.085
BI-212	2.355E-01		1.031E-01	4.369E-01	8.852E-03	0.539
RA-223	1.369E-03		5.602E-02	1.906E-01	4.796E-03	0.007
TH-228	6.789E-01		4.674E-01	1.745E+00	4.093E-02	0.389
PA-234	3.017E-01	+	2.866E-02	5.087E-02	1.133E-03	5.931
U-235	1.721E-01	+	4.472E-02	5.770E-02	1.376E-03	2.983
AM-241	4.550E-02		1.757E-02	6.826E-02	2.035E-03	0.667

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:11
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-113-C-01

SAMPLE No. : 040428005
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 00:54:51
SAMPLE TIME : 23-APR-2004 10:50:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 1.11200E+03
DETECTOR : DET 5

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.75	1.229E+01	QA Results OK
CO-60	1332.49	0.65	2.728E+00	QA Results OK
CS-137	661.65	0.23	1.046E+00	QA Results OK
TL-208	583.14	0.45	1.952E-01	QA Results OK
PB-212	238.63	0.03	4.709E-01	QA Results OK
BI-214	609.31	0.32	5.764E-01	QA Results OK
PB-214	351.92	0.10	5.472E-01	QA Results OK
RA-226	186.21	-0.72	2.838E+00	QA Results OK
AC-228	911.07	0.93	5.970E-01	QA Results OK
TH-234	63.29	-0.09	1.459E+00	QA Results OK
AVG ENERGY DIFF =		0.27	2.275E+01	= TOTAL GAMMA ACTIVITY

74.78 KeV Peak was used in identifying 2 isotopes
77.20 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
92.84	139.	1.20	2.735E+00	2.459E-03	23.2	P	PB_X-RAY	0.000E+00
						P	AC-228	1.912E+00
						P	TH-234	2.475E+00
510.92	73.	0.94	3.647E+00	3.279E-03	22.1	U	ANN-RD	0.000E+00

Total Unidentified/Rejected Peaks = 2
% Unidentified/Rejected Peaks = 10.00

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 01:29:45.83

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-113-C-02
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428006 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 10:55 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.14400E+03 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:12 * DEADTIME (%) : 0.0%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.2 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428006_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	74.12	29	95	1.06	148.31	145	14	58.2	3.15E+00	
2	75.11	84	89	1.07	150.28	145	14	21.2		PB-212
										PB-214
2	77.07	156	73	1.07	154.21	145	14	12.7		PB-214
										PB-212
2	87.29	49	101	1.10	174.62	171	20	37.9	2.70E+00	PB-212
2	90.29	43	106	1.11	180.62	171	20	42.9		
0	238.55	236	115	0.86	476.73	473	8	10.2		PB-212
0	241.75	62	77	1.02	483.13	481	8	29.1		PB-214
0	295.17	133	53	1.14	589.85	584	13	14.2		PB-214
0	338.75	38	50	1.35	676.91	672	9	37.6		AC-228
0	351.95	140	78	1.04	703.28	697	12	15.2		PB-214
0	511.10	53	29	1.82	1021.30	1015	13	25.1		
0	583.31	76	35	1.38	1165.63	1159	15	20.3		TL-208
0	609.38	136	16	1.39	1217.74	1213	9	10.0		BI-214
0	661.65	126	24	1.45	1322.21	1316	11	11.7		CS-137
0	728.44	27	37	1.44	1455.75	1448	16	56.3		
0	911.35	64	10	0.96	1821.48	1816	10	15.5		AC-228
0	1121.63	35	23	1.05	2242.09	2232	15	34.3		

Sample ID : 040428006 Acquisition date : 28-APR-2004 01:12:54

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1173.81	114	9	1.80	2346.49	2340	13	10.9		CO-60
0	1333.02	118	9	1.86	2665.06	2659	11	10.3		CO-60
0	1461.13	281	11	2.01	2921.48	2914	14	6.5		K-40

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.089E+01	7.311E-01	4.718E-01	8.742E-03	23.083
CO-60	4.205E-01	3.215E-02	4.137E-02	7.654E-04	10.166
CS-137	3.117E-01	3.717E-02	4.044E-02	9.170E-04	7.708
TL-208	1.706E-01	3.480E-02	3.741E-02	8.870E-04	4.560
PB-212	5.127E-01	5.236E-02	7.392E-02	2.123E-03	6.935
BI-214	5.767E-01	5.953E-02	7.580E-02	1.784E-03	7.608
PB-214	5.772E-01	5.870E-02	7.102E-02	1.427E-03	8.127
AC-228	5.715E-01	8.392E-02	1.245E-01	2.063E-03	4.591

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	4.228E-03		7.998E-02	2.855E-01	6.359E-03	0.015
MN-54	7.105E-03		1.015E-02	4.431E-02	7.988E-04	0.160
NB-94	-5.766E-03		9.926E-03	3.872E-02	6.671E-04	-0.149
RU-106	-3.247E-02		6.695E-02	2.760E-01	6.453E-03	-0.118
AG-108M	-2.640E-03		9.185E-03	3.721E-02	8.736E-04	-0.071
AG-110M	-2.149E-03		9.005E-03	3.446E-02	7.842E-04	-0.062
SB-125	-1.771E-02		2.364E-02	7.683E-02	1.588E-03	-0.230
CS-134	-7.291E-03		8.132E-03	3.141E-02	7.406E-04	-0.232
EU-152	7.204E-02		5.435E-02	2.690E-01	5.000E-03	0.268
EU-154	1.989E-02		2.514E-02	1.237E-01	3.862E-03	0.161
EU-155	1.052E-02		2.551E-02	9.780E-02	2.418E-03	0.108
BI-212	3.382E-01		1.147E-01	5.212E-01	1.095E-02	0.649
RA-223	4.976E-03		5.569E-02	1.969E-01	5.244E-03	0.025
RA-226	8.704E-01		2.265E-01	9.492E-01	2.361E-02	0.917
TH-228	5.062E-01		6.796E-01	2.607E+00	6.277E-02	0.194
PA-234	3.418E-02		1.940E-02	7.777E-02	1.795E-03	0.439
TH-234	8.756E-01		3.684E-01	1.508E+00	1.260E-01	0.581
U-235	3.366E-02		1.489E-02	5.780E-02	1.435E-03	0.582
AM-241	-2.001E-03		3.851E-02	1.466E-01	4.770E-03	-0.014

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:29
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-113-C-02

SAMPLE No. : 040428006
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 01:12:54
SAMPLE TIME : 23-APR-2004 10:55:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 1.14400E+03
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.33	1.089E+01	QA Results OK
CO-60	1332.49	0.53	4.205E-01	QA Results OK
CS-137	661.65	0.00	3.117E-01	QA Results OK
TL-208	583.14	0.17	1.706E-01	QA Results OK
PB-212	238.63	-0.08	5.127E-01	QA Results OK
BI-214	609.31	0.07	5.767E-01	QA Results OK
PB-214	351.92	0.03	5.772E-01	QA Results OK
AC-228	911.07	0.28	5.715E-01	QA Results OK
AVG ENERGY DIFF =		0.17	1.403E+01	= TOTAL GAMMA ACTIVITY

75.11 KeV Peak was used in identifying 2 isotopes
77.07 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
74.12	29.	1.06	1.526E+00	1.334E-03	58.2	P	PB_X-RAY	0.000E+00
						P	TL-208	1.057E+00
						P	PB-212	3.390E-01
						P	PB-214	5.844E-01
90.29	43.	1.11	1.659E+00	1.450E-03	42.9	P	BI-214	1.456E+01
						P	AC-228	1.878E+00
511.10	53.	1.82	3.802E+00	3.323E-03	25.1	U	ANN-RD	0.000E+00
728.44	27.	1.44	2.572E+00	2.248E-03	56.3	U		
1121.63	35.	1.05	4.886E+00	4.271E-03	34.3	U		

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Total Unidentified/Rejected Peaks = 5
% Unidentified/Rejected Peaks = 25.00

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 01:34:01.98

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-114-C-01
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428007 * SAMPLE GEOMETRY : 1LMARSAND
SAMPLE TIME : 23-APR-2004 11:10 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.52100E+03 GM
****

DETECTOR : DET 5 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 17:37 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00720E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:14 * DEADTIME (%) : 0.3%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1002.9 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428007_ADC5_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	59.52	194	545	1.00	119.16	116	7	21.1		AM-241
0	63.45	99	626	0.99	127.02	124	8	45.2		TH-234
3	74.75	224	500	1.04	149.59	145	14	17.2	5.59E-01	PB-212
										PB-214
3	77.07	385	507	1.03	154.23	145	14	10.6		PB-214
										PB-212
0	90.06	84	461	1.02	180.16	177	6	42.3		
0	92.86	193	578	1.39	185.76	183	8	22.6		
0	238.58	435	858	1.30	476.84	470	12	14.3		PB-212
0	295.00	205	402	1.24	589.56	585	10	19.6		PB-214
0	352.00	329	337	1.78	703.43	699	10	11.8		PB-214
0	584.03	192	229	1.47	1167.10	1162	12	17.6		TL-208
0	609.67	201	289	1.39	1218.35	1213	12	18.5		BI-214
0	661.93	2132	345	1.47	1322.81	1316	13	2.8		CS-137
0	911.51	79	348	1.22	1821.72	1817	11	47.2		AC-228
0	1173.83	6502	199	1.80	2346.29	2338	17	1.3		CO-60
0	1333.12	6002	40	1.82	2664.93	2655	20	1.3		CO-60
0	1461.54	522	34	1.96	2921.84	2914	15	5.0		K-40
0	1765.52	49	0	2.37	3530.16	3525	12	14.3		

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.089E+01	5.780E-01	3.578E-01	6.355E-03	30.429
CO-60	1.235E+01	1.899E-01	3.040E-02	5.398E-04	406.299
CS-137	2.915E+00	1.035E-01	6.332E-02	1.372E-03	46.029
TL-208	2.392E-01	4.234E-02	5.183E-02	1.175E-03	4.614
PB-212	5.295E-01	7.701E-02	7.643E-02	2.044E-03	6.927
BI-214	4.709E-01	8.777E-02	1.002E-01	2.253E-03	4.699
PB-214	6.329E-01	6.466E-02	8.748E-02	1.646E-03	7.235
AC-228	4.333E-01	2.046E-01	2.863E-01	4.547E-03	1.514
TH-234	1.179E+00	5.415E-01	7.357E-01	6.096E-02	1.602
AM-241	2.551E-01	5.445E-02	7.779E-02	2.306E-03	3.279

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-1.934E-02		1.354E-01	4.293E-01	9.139E-03	-0.045
MN-54	9.809E-03		1.881E-02	6.992E-02	1.205E-03	0.140
NB-94	1.775E-02		2.032E-02	7.579E-02	1.250E-03	0.234
RU-106	1.352E-01		1.642E-01	5.346E-01	1.194E-02	0.253
AG-108M	1.699E-02		1.538E-02	5.148E-02	1.155E-03	0.330
AG-110M	-4.548E-03		1.642E-02	5.666E-02	1.232E-03	-0.080
SB-125	2.168E-02		4.111E-02	1.353E-01	2.662E-03	0.160
CS-134	7.527E-03		1.631E-02	5.227E-02	1.178E-03	0.144
EU-152	2.519E-02		5.009E-02	2.031E-01	3.621E-03	0.124
EU-154	7.196E-02		3.936E-02	1.622E-01	4.998E-03	0.444
EU-155	9.278E-02		3.428E-02	1.257E-01	3.023E-03	0.738
BI-212	2.460E-01		1.415E-01	5.466E-01	1.097E-02	0.450
RA-223	7.780E-02		7.444E-02	2.529E-01	6.255E-03	0.308
RA-226	5.980E-01		2.867E-01	1.006E+00	2.372E-02	0.594
TH-228	6.708E-01		6.026E-01	2.146E+00	5.009E-02	0.313
PA-234	3.013E-02		1.643E-02	5.928E-02	1.315E-03	0.508
U-235	3.652E-02		1.755E-02	6.154E-02	1.448E-03	0.594

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:34
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-114-C-01

SAMPLE No. : 040428007
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 01:14:07
SAMPLE TIME : 23-APR-2004 11:10:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMARSAND
SAMPLE QUANTITY : 1.52100E+03
DETECTOR : DET 5

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.74	1.089E+01	QA Results OK
CO-60	1332.49	0.64	1.235E+01	QA Results OK
CS-137	661.65	0.29	2.915E+00	QA Results OK
TL-208	583.14	0.89	2.392E-01	QA Results OK
PB-212	238.63	-0.05	5.295E-01	QA Results OK
BI-214	609.31	0.36	4.709E-01	QA Results OK
PB-214	351.92	0.08	6.329E-01	QA Results OK
AC-228	911.07	0.44	4.333E-01	QA Results OK
TH-234	63.29	0.16	1.179E+00	QA Results OK
AM-241	59.54	-0.02	2.551E-01 ✓	QA Results OK
AVG ENERGY DIFF =		0.35	2.989E+01 = TOTAL GAMMA ACTIVITY	

74.75 KeV Peak was used in identifying 2 isotopes
77.07 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
90.06	84.	1.02	1.873E+00	1.231E-03	42.3	P	BI-214	1.239E+01
						P	AC-228	1.599E+00
92.86	193.	1.39	4.309E+00	2.833E-03	22.6	P	PB_X-RAY	0.000E+00
						P	AC-228	2.206E+00
						P	TH-234	2.856E+00
1765.52	49.	2.37	6.994E+00	4.598E-03	14.3	U		

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Total Unidentified/Rejected Peaks = 3
% Unidentified/Rejected Peaks = 17.65

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 01:52:23.65

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-114-C-02
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428008 * SAMPLE GEOMETRY : 1LMARSAND
SAMPLE TIME : 23-APR-2004 13:25 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.67400E+03 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:32 * DEADTIME (%) : 0.2%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1002.0 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428008_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	59.65	80	547	0.74	119.41	116	7	49.8		AM-241
0	74.82	102	495	1.13	149.72	147	6	35.9		PB-212
										PB-214
0	77.35	66	522	0.79	154.77	152	6	56.3		PB-214
										PB-212
0	238.64	224	968	0.91	476.92	471	11	27.7		PB-212
0	295.21	113	497	0.80	589.92	585	9	36.9		PB-214
0	351.76	178	578	0.93	702.90	697	12	28.1		PB-214
0	583.42	51	236	1.10	1165.84	1163	7	51.8		TL-208
0	609.70	167	343	1.61	1218.36	1213	12	23.5		BI-214
0	661.72	1960	373	1.56	1322.36	1316	13	3.0		CS-137
0	1173.46	7334	340	1.92	2345.79	2336	18	1.3		CO-60
0	1332.74	6739	139	2.03	2664.51	2655	21	1.3		CO-60
0	1461.11	345	15	2.11	2921.43	2914	17	6.0		K-40

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	9.603E+00	6.045E-01	4.474E-01	8.246E-03	21.465
CO-60	1.845E+01	2.867E-01	6.915E-02	1.263E-03	266.799
CS-137	3.568E+00	1.306E-01	9.105E-02	1.855E-03	39.191
TL-208	8.507E-02	4.408E-02	8.523E-02	1.803E-03	0.998
PB-212	3.476E-01	9.656E-02	1.071E-01	2.217E-03	3.246
BI-214	5.226E-01	1.233E-01	1.509E-01	3.169E-03	3.462
PB-214	4.519E-01	1.012E-01	1.337E-01	2.478E-03	3.381
AM-241	3.737E-01	1.867E-01	2.566E-01	8.560E-03	1.456

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	1.158E-01		1.869E-01	6.078E-01	1.248E-02	0.191
MN-54	1.773E-03		2.868E-02	1.034E-01	1.780E-03	0.017
NB-94	-3.047E-02		2.990E-02	1.042E-01	1.739E-03	-0.292
RU-106	4.105E-02		2.004E-01	7.460E-01	1.558E-02	0.055
AG-108M	1.670E-02		2.314E-02	8.198E-02	1.718E-03	0.204
AG-110M	-1.249E-02		2.432E-02	8.213E-02	1.679E-03	-0.152
SB-125	6.340E-02		6.485E-02	2.134E-01	4.189E-03	0.297
CS-134	1.501E-02		1.950E-02	7.382E-02	1.553E-03	0.203
EU-152	3.572E-02		6.407E-02	2.599E-01	4.788E-03	0.137
EU-154	1.686E-02		5.264E-02	1.979E-01	6.152E-03	0.085
EU-155	-4.826E-02		5.207E-02	1.771E-01	3.994E-03	-0.272
BI-212	1.862E-01		2.090E-01	7.784E-01	1.497E-02	0.239
RA-223	-4.832E-02		1.004E-01	3.253E-01	6.442E-03	-0.149
RA-226	7.165E-01		3.608E-01	1.274E+00	2.641E-02	0.563
AC-228	4.074E-01		1.368E-01	5.151E-01	8.373E-03	0.791
TH-228	1.201E+00		1.074E+00	3.891E+00	1.046E-01	0.309
PA-234	1.152E-01	+	6.496E-02	1.001E-01	2.695E-03	1.151
TH-234	6.445E-01		5.812E-01	2.134E+00	1.785E-01	0.302
U-235	1.744E-02		2.177E-02	7.473E-02	1.549E-03	0.233

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:52
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-114-C-02

SAMPLE No. : 040428008
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 01:32:29
SAMPLE TIME : 23-APR-2004 13:25:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMARSAND
SAMPLE QUANTITY : 1.67400E+03
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.31	9.603E+00	QA Results OK
CO-60	1332.49	0.26	1.845E+01	QA Results OK
CS-137	661.65	0.07	3.568E+00	QA Results OK
TL-208	583.14	0.28	8.507E-02	* Count Rate Error = 52.
PB-212	238.63	0.02	3.476E-01	QA Results OK
BI-214	609.31	0.38	5.226E-01	QA Results OK
PB-214	351.92	-0.16	4.519E-01	QA Results OK
AM-241	59.54	0.11	3.737E-01	QA Results OK
AVG ENERGY DIFF =		0.16	3.340E+01	= TOTAL GAMMA ACTIVITY

74.82 KeV Peak was used in identifying 2 isotopes
77.35 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
No Unidentified/Rejected Peaks								

Performed by: _____

Reviewed by: _____

**** End Of Report (1 Page) ****

****
28-APR-2004 01:52:14.60

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-115-C-01
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428009 * SAMPLE GEOMETRY : 1LMARSAND
SAMPLE TIME : 23-APR-2004 13:30 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 1.46500E+03 GM
****

DETECTOR : DET 5 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 17:37 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00720E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:35 * DEADTIME (%) : 0.1%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.8 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428009_ADC5_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY : _____
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
2	74.86	174	213	1.15	149.81	143	16	16.3	2.11E+00	PB-212
										PB-214
2	77.11	273	166	0.92	154.30	143	16	9.2		PB-214
										PB-212
0	93.32	77	269	1.20	186.67	182	8	38.4		
1	185.21	36	57	1.05	370.22	368	9	35.8	5.67E+00	
1	186.20	106	97	1.23	372.20	368	9	19.1		RA-226
4	238.73	377	102	1.19	477.14	471	17	6.8	7.69E-01	PB-212
4	241.62	119	127	1.73	482.91	471	17	22.8		PB-214
0	295.42	149	125	1.05	590.39	585	11	16.7		PB-214
0	338.17	75	105	1.06	675.80	671	11	29.0		AC-228
0	352.01	256	108	1.35	703.47	697	12	10.3		PB-214
0	583.62	128	43	1.11	1166.29	1161	12	13.4		TL-208
0	609.59	193	38	1.58	1218.18	1213	11	9.5		BI-214
0	661.95	553	48	1.32	1322.85	1317	12	4.9		CS-137
0	727.06	46	48	1.73	1452.98	1447	12	33.5		BI-212
0	795.97	31	39	1.92	1590.73	1583	12	43.5		
0	912.07	72	66	1.52	1822.84	1816	11	24.8		AC-228
0	969.70	56	56	1.32	1938.08	1934	10	28.4		AC-228

Sample ID : 040428009 Acquisition date : 28-APR-2004 01:35:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	1122.21	31	56	1.31	2243.06	2235	15	55.1		
0	1173.90	677	48	1.70	2346.44	2340	16	4.5		CO-60
0	1333.22	627	12	1.81	2665.12	2658	17	4.2		CO-60
0	1461.50	458	4	1.82	2921.77	2915	14	4.8		K-40

Sample ID : 040428009 Acquisition date : 28-APR-2004 01:35:17

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	9.922E+00	5.033E-01	1.576E-01	2.799E-03	62.972
CO-60	1.339E+00	4.414E-02	2.529E-02	4.490E-04	52.931
CS-137	7.849E-01	4.230E-02	2.890E-02	6.259E-04	27.161
TL-208	1.654E-01	2.256E-02	2.528E-02	5.731E-04	6.543
BI-212	5.099E-01	1.713E-01	2.283E-01	4.581E-03	2.233
PB-212	4.758E-01	3.486E-02	3.890E-02	1.040E-03	12.231
BI-214	4.696E-01	4.591E-02	3.741E-02	8.413E-04	12.552
PB-214	5.206E-01	4.359E-02	4.931E-02	9.280E-04	10.558
RA-226	1.578E+00	3.042E-01	5.033E-01	1.186E-02	3.136
AC-228	4.582E-01	7.259E-02	1.548E-01	2.459E-03	2.960

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	5.412E-02		5.608E-02	2.122E-01	4.517E-03	0.255
MN-54	-7.770E-03		8.529E-03	3.153E-02	5.436E-04	-0.246
NB-94	6.795E-03		8.741E-03	3.588E-02	5.918E-04	0.189
RU-106	1.447E-01		6.152E-02	2.662E-01	5.946E-03	0.544
AG-108M	-3.803E-03		6.465E-03	2.077E-02	4.660E-04	-0.183
AG-110M	7.451E-03		6.834E-03	2.812E-02	6.114E-04	0.265
SB-125	2.472E-03		2.205E-02	7.540E-02	1.484E-03	0.033
CS-134	4.555E-03		8.279E-03	2.892E-02	6.516E-04	0.158
EU-152	4.099E-02		3.641E-02	1.686E-01	3.005E-03	0.243
EU-154	3.001E-02		2.199E-02	1.011E-01	3.114E-03	0.297
EU-155	1.025E-02		2.333E-02	8.340E-02	2.005E-03	0.123
RA-223	5.860E-02		4.258E-02	1.565E-01	3.870E-03	0.374
TH-228	3.804E-01		4.184E-01	1.530E+00	3.572E-02	0.249
PA-234	2.407E-01	+	2.278E-02	3.982E-02	8.831E-04	6.044
TH-234	6.172E-01		1.685E-01	6.410E-01	5.311E-02	0.963
U-235	9.574E-02	+	1.845E-02	4.671E-02	1.099E-03	2.050
AM-241	2.105E-02		1.638E-02	6.126E-02	1.816E-03	0.344

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 01:52
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-115-C-01

SAMPLE No. : 040428009
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 01:35:17
SAMPLE TIME : 23-APR-2004 13:30:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMARSAND
SAMPLE QUANTITY : 1.46500E+03
DETECTOR : DET 5

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.70	9.922E+00	QA Results OK
CO-60	1332.49	0.73	1.339E+00	QA Results OK
CS-137	661.65	0.31	7.849E-01	QA Results OK
TL-208	583.14	0.48	1.654E-01	QA Results OK
BI-212	727.17	-0.11	5.099E-01	QA Results OK
PB-212	238.63	0.11	4.758E-01	QA Results OK
BI-214	609.31	0.27	4.696E-01	QA Results OK
PB-214	351.92	0.09	5.206E-01	QA Results OK
RA-226	186.21	-0.01	1.578E+00	QA Results OK
AC-228	911.07	1.00	4.582E-01	QA Results OK
AVG ENERGY DIFF =		0.36	1.622E+01 = TOTAL GAMMA ACTIVITY	

74.86 KeV Peak was used in identifying 2 isotopes
77.11 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
93.32	77.	1.20	1.723E+00	1.176E-03	38.4	~~P~~	AC-228	9.144E-01
						~~U~~	TH-234	1.184E+00
185.21	36.	1.05	9.408E-01	6.422E-04	35.8	~~P~~	U-235	3.218E-02
795.97	31.	1.92	2.409E+00	1.645E-03	43.5	~~R~~	~~CS-134~~	5.226E-02
1122.21	31.	1.31	3.195E+00	2.181E-03	55.1	~~U~~		

Total Unidentified/Rejected Peaks = 4
% Unidentified/Rejected Peaks = 19.05

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

****
28-APR-2004 02:14:16.88

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-115-C-02
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428010 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 13:35 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 9.99000E+02 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:57 * DEADTIME (%) : 0.0%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.3 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428010_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY :
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
3	74.77	92	146	1.15	149.62	146	13	23.3	2.23E+00	PB-212
										PB-214
3	77.21	149	106	1.07	154.48	146	13	13.9		PB-214
										PB-212
1	92.42	37	57	1.01	184.86	183	11	33.1	1.92E+00	
1	93.49	38	79	0.92	187.00	183	11	42.4		
0	186.32	115	91	1.20	372.40	368	11	18.9		RA-226
0	209.76	30	84	1.04	419.23	414	9	57.3		AC-228
2	238.65	271	51	1.14	476.93	473	15	7.4	1.50E+00	PB-212
2	241.07	35	45	1.27	481.77	473	15	49.1		
2	242.30	55	43	1.40	484.22	473	15	27.8		PB-214
0	295.25	93	46	0.96	589.99	585	8	16.3		PB-214
0	338.27	65	66	1.16	675.95	669	14	29.5		AC-228
0	351.92	196	32	1.12	703.21	698	12	9.2		PB-214
0	408.76	42	15	0.66	816.80	810	12	24.1		
0	510.44	34	37	1.00	1019.98	1015	10	37.9		
0	583.20	107	27	1.26	1165.40	1158	13	13.8		TL-208
0	609.49	112	24	1.43	1217.96	1213	12	12.9		BI-214
0	661.90	113	30	1.17	1322.72	1317	11	13.3		CS-137

****
28-APR-2004 02:14:16.88

CONNECTICUT YANKEE
HADDAM NECK STATION
****

SAMPLE TITLE : - SOIL 9108-0000-115-C-02
REASON FOR ANALYSIS: Site Characterization
SAMPLE ID : 040428010 * SAMPLE GEOMETRY : 1LMAR
SAMPLE TIME : 23-APR-2004 13:35 * GEO EFFICIENCY DATE: 30-JUL-2003
SAMPLE TYPE : DIRT/SEDIMENT * SAMPLE QUANTITY : 9.99000E+02 GM
****

DETECTOR : DET 2 * LIBRARY : FSS_DIRT
LAST ENERGY CAL : 27-APR-2004 09:47 * ENERGY TOLERANCE: 1.00000
KEV/CHANNEL : 5.00804E-01 * HALF LIFE RATIO : 9.00000
START CHANNEL : 100 * END CHANNEL : 4096
ACQ DATE & TIME : 28-APR-2004 01:57 * DEADTIME (%) : 0.0%
PRESET LIVE TIME : 0 00:16:40 * SENSITIVITY : 5.00000
ELAPSED REAL TIME : 1000.3 Secs * GAUSSIAN SEN : 10.00000
ELAPSED LIVE TIME : 1000.0 Secs * CORRECTION FACTOR: 1.00000E+06
DECAYED TO 4 DAYS HOURS
FILE IDENT : CAS$DISK:[NEU.SAMPLE.RP.NEW]040428010_ADC2_DIRTSEDIMENT.CNF;1

****
ANALYSES : PEAK V16.8 NID V3.2 MINACT V2.8 WTMEAN V1.8
****

Collected by : GRINLEY
REVIEWED BY :
COMMENTS :

****

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
3	74.77	92	146	1.15	149.62	146	13	23.3	2.23E+00	PB-212
										PB-214
3	77.21	149	106	1.07	154.48	146	13	13.9		PB-214
										PB-212
1	92.42	37	57	1.01	184.86	183	11	33.1	1.92E+00	
1	93.49	38	79	0.92	187.00	183	11	42.4		
0	186.32	115	91	1.20	372.40	368	11	18.9		RA-226
0	209.76	30	84	1.04	419.23	414	9	57.3		AC-228
2	238.65	271	51	1.14	476.93	473	15	7.4	1.50E+00	PB-212
2	241.07	35	45	1.27	481.77	473	15	49.1		
2	242.30	55	43	1.40	484.22	473	15	27.8		PB-214
0	295.25	93	46	0.96	589.99	585	8	16.3		PB-214
0	338.27	65	66	1.16	675.95	669	14	29.5		AC-228
0	351.92	196	32	1.12	703.21	698	12	9.2		PB-214
0	408.76	42	15	0.66	816.80	810	12	24.1		
0	510.44	34	37	1.00	1019.98	1015	10	37.9		
0	583.20	107	27	1.26	1165.40	1158	13	13.8		TL-208
0	609.49	112	24	1.43	1217.96	1213	12	12.9		BI-214
0	661.90	113	30	1.17	1322.72	1317	11	13.3		CS-137

Sample ID : 040428010 Acquisition date : 28-APR-2004 01:57:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
0	727.61	21	17	1.31	1454.09	1449	11	43.5		BI-212
0	859.53	38	10	2.29	1717.86	1711	14	24.3		TL-208
0	911.62	72	26	1.23	1822.03	1816	13	18.8		AC-228
0	969.34	59	14	2.46	1937.45	1932	12	18.3		AC-228
0	1120.15	20	17	2.92	2239.13	2232	13	46.3		BI-214
0	1173.66	177	33	1.75	2346.18	2340	12	9.9		CO-60
0	1332.86	180	10	1.69	2664.74	2658	14	8.4		CO-60
0	1461.14	266	4	1.94	2921.51	2913	16	6.4		K-40

Sample ID : 040428010 Acquisition date : 28-APR-2004 01:57:20

---- Identified Nuclides ----

Nuclide	Activity (pCi/GM)	Act error	MDA (pCi/GM)	MDA error	Act/MDA
K-40	1.180E+01	7.817E-01	4.840E-01	8.968E-03	24.371
CO-60	7.474E-01	4.890E-02	4.737E-02	8.764E-04	15.778
CS-137	3.207E-01	4.318E-02	5.571E-02	1.263E-03	5.756
TL-208	2.941E-01	3.797E-02	3.803E-02	9.018E-04	7.734
BI-212	4.643E-01	2.024E-01	3.528E-01	7.410E-03	1.316
PB-212	6.693E-01	5.301E-02	5.443E-02	1.563E-03	12.296
BI-214	5.407E-01	6.811E-02	7.220E-02	1.699E-03	7.488
PB-214	7.196E-01	5.676E-02	6.459E-02	1.298E-03	11.140
RA-226	3.322E+00	6.340E-01	7.049E-01	1.754E-02	4.712
AC-228	8.985E-01	1.076E-01	1.964E-01	3.255E-03	4.575

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GM)	K.L. Ided	Act error	MDA (pCi/GM)	MDA error	Act/MDA
BE-7	-1.068E-01		9.922E-02	3.016E-01	6.718E-03	-0.354
MN-54	5.264E-03		1.062E-02	4.646E-02	8.374E-04	0.113
NB-94	-7.045E-03		1.131E-02	4.393E-02	7.569E-04	-0.160
RU-106	1.057E-01		1.072E-01	4.684E-01	1.095E-02	0.226
AG-108M	6.386E-03		1.203E-02	4.830E-02	1.134E-03	0.132
AG-110M	3.546E-04		9.240E-03	3.719E-02	8.464E-04	0.010
SB-125	2.977E-03		2.756E-02	1.002E-01	2.070E-03	0.030
CS-134	3.784E-03		9.289E-03	3.999E-02	9.429E-04	0.095
EU-152	1.157E-02		5.757E-02	2.558E-01	4.754E-03	0.045
EU-154	2.680E-03		3.384E-02	1.456E-01	4.546E-03	0.018
EU-155	-2.448E-02		3.175E-02	1.122E-01	2.774E-03	-0.218
RA-223	-2.142E-03		6.929E-02	2.409E-01	6.414E-03	-0.009
TH-228	1.698E+00		7.977E-01	3.233E+00	7.786E-02	0.525
PA-234	3.949E-01	+	5.546E-02	9.369E-02	2.163E-03	4.214
TH-234	-4.786E-02		4.344E-01	1.617E+00	1.351E-01	-0.030
U-235	2.015E-01	+	3.845E-02	7.998E-02	1.986E-03	2.519
AM-241	-1.800E-02		4.368E-02	1.631E-01	5.305E-03	-0.110

REPORT NAME : QA_CHECK (V9.1)
REPORT DATE : 28-APR-2004 02:14
REQUESTOR : CAS

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

TITLE : - SOIL 9108-0000-115-C-02

SAMPLE No. : 040428010
SAMPLE TYPE : DIRT/SEDIMENT
COUNT TIME : 28-APR-2004 01:57:20
SAMPLE TIME : 23-APR-2004 13:35:00
LIBRARY : FSS_DIRT

OPERATOR NAME : CAS
SAMPLE GEOMETRY : 1LMAR
SAMPLE QUANTITY : 9.99000E+02
DETECTOR : DET 2

ISOTOPE	PEAK ENERGY	ENERGY DIFF (KEV)	DECAY CORR pCi/GM	COMMENTS
K-40	1460.80	0.34	1.180E+01	QA Results OK
CO-60	1332.49	0.37	7.474E-01	QA Results OK
CS-137	661.65	0.25	3.207E-01	QA Results OK
TL-208	583.14	0.06	2.941E-01	QA Results OK
BI-212	727.17	0.44	4.643E-01	QA Results OK
PB-212	238.63	0.02	6.693E-01	QA Results OK
BI-214	609.31	0.18	5.407E-01	QA Results OK
PB-214	351.92	0.00	7.196E-01	QA Results OK
RA-226	186.21	0.11	3.322E+00	QA Results OK
AC-228	911.07	0.55	8.985E-01	QA Results OK
AVG ENERGY DIFF =		0.23	1.977E+01	= TOTAL GAMMA ACTIVITY

74.77 KeV Peak was used in identifying 2 isotopes
77.21 KeV Peak was used in identifying 2 isotopes

UNIDENTIFIED/REJECTED PEAKS

ENERGY	NET AREA	FWHM	GAMMA/SEC	GAMMA/SEC /GM	% ERROR	FLAG	POTENTIAL ID	ACTIVITY
92.42	37.	1.01	1.396E+00	1.398E-03	33.1	~~P~~	PB_X-RAY	0.000E+00
						P	AC-228	1.086E+00
						U	TH-234	1.406E+00
93.49	38.	0.92	1.417E+00	1.418E-03	42.4	P	AC-228	1.102E+00
						U	TH-234	1.427E+00
241.07	35.	1.27	1.439E+00	1.441E-03	49.1	P	PB-214	5.233E-01
408.76	42.	0.66	2.509E+00	2.512E-03	24.1	~~U~~	~~SB-125~~	3.741E+01
						P	AC-228	3.206E+00
510.44	34.	1.00	2.423E+00	2.425E-03	37.9	P	AC-228	1.403E+01
						U	ANN-RD	0.000E+00

CYAPCO
HADDAM NECK STATION

POST NID QA ANALYSIS

Total Unidentified/Rejected Peaks = 5
% Unidentified/Rejected Peaks = 20.00

Flags: U - Unknown Line
R - Rejected During Analysis
P - Positively Identified (line not in analysis library)

Performed by: _____

Reviewed by: _____

**** End Of Report (2 Pages) ****

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GENERAL NARRATIVE

CASE NARRATIVE
FOR
CONNECTICUT YANKEE
RE: Soil and Concrete
PO# 002337
Work Order: 129519

January 31, 2005

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 26, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures except in items of note located below.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
129519004	3002-0000-188-C-1C-03
129519005	3002-0000-188-C-1C-04
129519006	3002-0000-188-C-2C-05
129519007	3002-0000-188-C-2C-06
129519008	3002-0000-188-C-2C-07
129519009	3002-0000-188-C-2C-08
129519010	3002-0000-188-C-3C-09
129519011	3002-0000-188-C-3C-010
129519012	3002-0000-188-C-3C-011
129519013	3002-0000-188-C-3C-012
129519014	3002-0000-188-C-3C-013

Items of Note:

Due to the special matrix of sample 3002-0000-188-Liner, Pete Hollenbeck was contacted for technical guidance. Based on the assumption that the sample matrix was uniformly activated, a small portion of the sample was dissolved for analytical preparation. H_3 & C_{14} are not reported on this sample, due to the acid dissolution preparation.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One solid sample was analyzed for CHALL. (except H-3 and C14)
Two concrete samples were analyzed for CHALL.
Eleven concrete samples were analyzed for CHGAM, H-3, Ni-63, & Fe-55.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2005-00016

129519%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 Att: Cheryl Jones

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55	CHALL		Comment, Preservation	Lab Sample ID
01	3002-0000-188-Liner	1/4/05	0930	SS	CR	BP					X			
02	3002-0000-188-C-1C-01	1/4/05	1000	CT	CR	BP					X		2"	
03	3002-0000-188-C-1C-02	1/4/05	1000	CT	CR	BP					X		2"	
04	3002-0000-188-C-1C-03	1/4/05	1000	CT	CR	BP	X	X	X	X			2"	
05	3002-0000-188-C-1C-04	1/4/05	1000	CT	CR	BP	X	X	X	X			1.5"	
06	3002-0000-188-C-2C-05	1/4/05	1015	CT	CR	BP	X	X	X	X			2"	
07	3002-0000-188-C-2C-06	1/4/05	1015	CT	CR	BP	X	X	X	X			2"	
08	3002-0000-188-C-2C-07	1/4/05	1015	CT	CR	BP	X	X	X	X			2"	
09	3002-0000-188-C-2C-08	1/4/05	1015	CT	CR	BP	X	X	X	X			1.5"	
010	3002-0000-188-C-3C-09	1/4/05	1055	CT	CR	BP	X	X	X	X			3"	

NOTES: PO #: 002337 MSR #: 05-0190 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: ____ Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By [signature] Date/Time 1/25/05 1110	2) Received By [signature] Date/Time 1/25/05 1110
3) Relinquished By [signature] Date/Time 1/25/05	4) Received By [signature] Date/Time 1/26/05 0930
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2005-00017

129519'/.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 Att: Cheryl Jones

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55			Comment, Preservation	Lab Sample ID
11	3002-0000-188-C-3C-010	1/4/05	1055	CT	CR	BP	X	X	X	X			2"	
12	3002-0000-188-C-3C-011	1/4/05	1055	CT	CR	BP	X	X	X	X			2"	
13	3002-0000-188-C-3C-012	1/4/05	1055	CT	CR	BP	X	X	X	X			2"	
14	3002-0000-188-C-3C-013	1/4/05	1055	CT	CR	BP	X	X	X	X			1.5"	

NOTES: PO #: 002337 MSR #: 05-0190 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: John J. Hoot — Date/Time 1/25/05 1110	2) Received By: S. Hemenfel — Date/Time 1/25/05 1110
3) Relinquished By: S. Hemenfel — Date/Time 1/25/05	4) Received By: Judy Hann — Date/Time 1/26/05 0930
5) Relinquished By — Date/Time	6) Received By — Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-26-05 0930

SDG#: MSR #05-0190

Work Order Number: 129519

Shipping Container ID: _____ Chain of Custody # 2005-000116

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 17°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 14
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape	____hazard labels
____custody seals	✓ appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: [signature] Date: 1-26-05

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Conn. Yankee	SDG/ARCOC/Work Order: 129519
Date Received: 1-26-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: TH	1/26/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?			✓	Comments:
Radioactivity Screening Results (maximum observed CPM)	CPM 1000			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CJ Initials 1/26/05 Date:

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0190

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	397378
Prep Batch Number:	397376

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200778829	Method Blank (MB)
1200778830	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200778831	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200778832	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200778829 (MB) was recounted due to a peak shift.
Samples 1200778829 (MB), 1200778830 (3002-0000-188-C-1C-01), 129519001 (3002-0000-188-Liner), 129519002 (3002-0000-188-C-1C-01) and 129519003 (3002-0000-188-C-1C-02) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 178100 was generated due to RDL less than MDA. 1. The RDL is less than the MDA for Cm-3/4 in sample 129519001. 1. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	397379
Prep Batch Number:	397376

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200778833	Method Blank (MB)
1200778834	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200778835	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200778836	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200778834 (3002-0000-188-C-1C-01), 129519001 (3002-0000-188-Liner) and 129519002 (3002-0000-188-C-1C-01) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	399858
Prep Batch Number:	397376
Dry Soil Prep GL-RAD-A-021 Batch Number:	397375

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200784947	Method Blank (MB)
1200784948	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200784949	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200784950	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering

Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
The entire batch was reprepped due to not meeting the RDL.

Miscellaneous Information:

NCR Documentation
NCR ID 179320 129519001 (3002-0000-188-Liner). The following NCR was generated for this SDG:
NCR 179320 was generated due to RDL less than MDA. 1. The following sample did not meet RDL due to matrix interference: 129519 001 1. The results are reported.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	399566

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200784196	Method Blank (MB)
1200784197	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200784198	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200784199	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
The entire batch was reprepped due to failed RPD, MS, and LCS.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	397382
Prep Batch Number:	397376

Sample ID	Client ID
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
129519004	3002-0000-188-C-1C-03
129519005	3002-0000-188-C-1C-04
129519006	3002-0000-188-C-2C-05
129519007	3002-0000-188-C-2C-06
129519008	3002-0000-188-C-2C-07
129519009	3002-0000-188-C-2C-08
129519010	3002-0000-188-C-3C-09
129519011	3002-0000-188-C-3C-010
129519012	3002-0000-188-C-3C-011
129519013	3002-0000-188-C-3C-012
129519014	3002-0000-188-C-3C-013
1200778845	Method Blank (MB)
1200778846	129519004(3002-0000-188-C-1C-03) Sample Duplicate (DUP)
1200778847	129519004(3002-0000-188-C-1C-03) Matrix Spike (MS)
1200778848	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519004(3002-0000-188-C-1C-03).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 179264 was generated due to RDL less than MDA. 1. The following samples did not meet RDL due aliquot size restrictions associated with the matrix. 129519 009,010,011,012,013,014. 1. The results are reported.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank sample 1200778845 (MB) failed the detection limit due to keeping the sample volume consistent with the other sample aliquots.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	399836
Prep Batch Number:	397376
Dry Soil Prep GL-RAD-A-021 Batch Number:	397375

Sample ID	Client ID
129519001	3002-0000-188-Liner
1200784852	Method Blank (MB)
1200784853	129519001(3002-0000-188-Liner) Sample Duplicate (DUP)
1200784854	129519001(3002-0000-188-Liner) Matrix Spike (MS)
1200784855	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519001 (3002-0000-188-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 129519001 (3002-0000-188-Liner) was removed from batch 397382 and reprepped due to a high quench number.
Sample 1200784853 (3002-0000-188-Liner) was recounted due to high relative percent difference/relative error ratio.
Sample 1200784854 (3002-0000-188-Liner) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 179715 was generated due to Failed Recovery for LCS/MS/PS. 1. The matrix spike 1200784854 did not meet the recovery requirement due to the matrix of the sample. Project manager notified. 1. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200784852 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information
Product: **Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)**

Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	397383
Prep Batch Number:	397376

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
129519004	3002-0000-188-C-1C-03
129519005	3002-0000-188-C-1C-04
129519006	3002-0000-188-C-2C-05
129519007	3002-0000-188-C-2C-06
129519008	3002-0000-188-C-2C-07
129519009	3002-0000-188-C-2C-08
129519010	3002-0000-188-C-3C-09
129519011	3002-0000-188-C-3C-010
129519012	3002-0000-188-C-3C-011
129519013	3002-0000-188-C-3C-012
129519014	3002-0000-188-C-3C-013
1200778849	Method Blank (MB)
1200778850	129519004(3002-0000-188-C-1C-03) Sample Duplicate (DUP)
1200778851	129519004(3002-0000-188-C-1C-03) Matrix Spike (MS)
1200778852	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519004 (3002-0000-188-C-1C-03).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	397377
Prep Batch Number:	397375

Sample ID	Client ID
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
129519004	3002-0000-188-C-1C-03
129519005	3002-0000-188-C-1C-04
129519006	3002-0000-188-C-2C-05
129519007	3002-0000-188-C-2C-06
129519008	3002-0000-188-C-2C-07
129519009	3002-0000-188-C-2C-08
129519010	3002-0000-188-C-3C-09
129519011	3002-0000-188-C-3C-010
129519012	3002-0000-188-C-3C-011
129519013	3002-0000-188-C-3C-012
129519014	3002-0000-188-C-3C-013
1200778822	Method Blank (MB)
1200778823	129519001(3002-0000-188-Liner) Sample Duplicate (DUP)
1200778824	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519001 (3002-0000-188-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200778824 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Actinium-228	129519014
		Bismuth-214	129519008
			129519013
		Cesium-134	1200778822
		Europium-152	1200778822
		Lead-212	129519005
			129519008
			129519009
			129519013
			129519014
		Lead-214	129519007
			129519009
			129519010

		Potassium-40	129519003
		Radium-226	129519008
		Thallium-208	129519013
UI	Data rejected due to no valid peak.	Cesium-137	129519008
		Lead-214	129519011
			129519012
			129519013
		Potassium-40	1200778822
			129519005

Method/Analysis Information

Product:	**GFPC, Sr90, solid High Rad (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	397381
Prep Batch Number:	397376

Sample ID	**Client ID**
129519001	3002-0000-188-Liner
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200778841	Method Blank (MB)
1200778842	129519003(3002-0000-188-C-1C-02) Sample Duplicate (DUP)
1200778843	129519003(3002-0000-188-C-1C-02) Matrix Spike (MS)
1200778844	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519003 (3002-0000-188-C-1C-02).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200778841 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	397385

Sample ID	Client ID
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
129519004	3002-0000-188-C-1C-03
129519005	3002-0000-188-C-1C-04
129519006	3002-0000-188-C-2C-05
129519007	3002-0000-188-C-2C-06
129519008	3002-0000-188-C-2C-07
129519009	3002-0000-188-C-2C-08
129519010	3002-0000-188-C-3C-09
129519011	3002-0000-188-C-3C-010
129519012	3002-0000-188-C-3C-011
129519013	3002-0000-188-C-3C-012
129519014	3002-0000-188-C-3C-013
1200778857	Method Blank (MB)
1200778858	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200778859	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200778860	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
The Matrix Spike sample 1200778859 (3002-0000-188-C-1C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200778857 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	397386

Sample ID	**Client ID**
129519002	3002-0000-188-C-1C-01
129519003	3002-0000-188-C-1C-02
1200778861	Method Blank (MB)
1200778862	129519002(3002-0000-188-C-1C-01) Sample Duplicate (DUP)
1200778863	129519002(3002-0000-188-C-1C-01) Matrix Spike (MS)
1200778864	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129519002 (3002-0000-188-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather G Chou 02/14/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 178100
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-FEB-05	Radiochemistry	Specifications	Process
Instrument Type: ALPHA SPECTROMETER	**Test / Method:** DOE EML HASL-300, Am-05-RC Modified	**Matrix Type:** Solid	**Client Code:** YANK
Batch ID: 397378	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 129519(MSR#05-0190)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The RDL is less than the MDA for Cm-3/4 in sample 129519001.	1. Reporting results.

Originator's Name:
Jessica Downey 07-FEB-05

Data Validator/Group Leader:
Melanie Aycock 14-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 179320
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
10-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE EML HASL-300, Pu-11-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
399858	See Below		

Potentially affected work order(s)(SDG): 129519(MSR#05-0190)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The following sample did not meet RDL due to matrix interference: 129519 001	1. The results are reported.

Originator's Name:
Keith Doran 10-FEB-05

Data Validator/Group Leader:
Heather Anderson 14-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 179264
Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
10-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
397382	See Below		

Potentially affected work order(s)(SDG): 129519(MSR#05-0190)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The following samples did not meet RDL due aliquot size restrictions associated with the matrix. 129519 009,010,011,012,013,014.	1. The results are reported.

Originator's Name:
Keith Doran 10-FEB-05

Data Validator/Group Leader:
Heather Anderson 14-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 179715
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
399836	See Below		

Potentially affected work order(s)(SDG): 129519(MSR#05-0190)

Application Issues:

Failed Recovery for LCS/MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The matrix spike 1200784854 did not meet the recovery requirement due to the matrix of the sample. Project manager notified.	1. Reporting results.

Originator's Name:
Melanie Aycock 14-FEB-05

Data Validator/Group Leader:
Heather Anderson 14-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0190 GEL Work Order: 129519

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-Liner	Project:	YANK01304
Sample ID:	129519001	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	0%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)												
Americium-241		1.18	+/-0.475	0.294	+/-0.500	0.650	pCi/g		RDD 02/02/05	1521	397378	1
Curium-242	U	-0.0774	+/-0.168	0.159	+/-0.168	0.387	pCi/g					
Curium-243/244	U	0.455	+/-0.389	0.280	+/-0.394	0.622	pCi/g					
Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)												
Plutonium-238		0.758	+/-0.272	0.145	+/-0.288	0.332	pCi/g		RDD 02/02/05	1521	397379	2
Plutonium-239/240		0.318	+/-0.136	0.00	+/-0.142	0.0411	pCi/g					
GFPC, Sr90, solid High Rad (CT)												
Strontium-90		7.00	+/-0.122	0.0247	+/-1.77	0.0509	pCi/g		AAK 02/04/05	0423	397381	3
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	1.30	+/-9.59	7.71	+/-9.40	15.6	pCi/g		ADD 01/28/05	1033	397377	4
Americium-241	U	2.20	+/-6.66	4.19	+/-6.53	8.49	pCi/g					
Bismuth-212	U	-0.203	+/-15.5	11.8	+/-15.2	24.0	pCi/g					
Bismuth-214	U	2.20	+/-3.17	2.45	+/-3.11	4.99	pCi/g					
Cesium-134	U	-0.879	+/-2.51	1.89	+/-2.46	3.85	pCi/g					
Cesium-137		126	+/-9.82	1.45	+/-9.62	2.95	pCi/g					
Cobalt-60		1050	+/-62.8	0.900	+/-61.5	1.88	pCi/g					
Europium-152	U	3.56	+/-5.05	2.92	+/-4.95	5.92	pCi/g					
Europium-154	U	-0.349	+/-3.39	2.69	+/-3.32	5.59	pCi/g					
Europium-155	U	1.67	+/-3.57	2.54	+/-3.50	5.15	pCi/g					
Lead-212	U	1.07	+/-2.14	1.64	+/-2.09	3.33	pCi/g					
Lead-214	U	3.74	+/-3.14	2.17	+/-3.07	4.40	pCi/g					
Manganese-54	U	0.807	+/-2.39	1.83	+/-2.34	3.71	pCi/g					
Niobium-94	U	-0.0876	+/-1.73	1.32	+/-1.69	2.67	pCi/g					
Potassium-40	U	6.99	+/-14.5	6.40	+/-14.2	13.6	pCi/g					
Radium-226	U	2.20	+/-3.17	2.45	+/-3.11	4.99	pCi/g					
Silver-108m	U	-0.422	+/-1.45	1.10	+/-1.42	2.24	pCi/g					
Thallium-208	U	-0.53	+/-1.71	1.30	+/-1.68	2.64	pCi/g					
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55		9550	+/-191	57.2	+/-473	117	pCi/g		AAK 02/08/05	1435	399836	5
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63		296	+/-6.66	2.27	+/-12.2	4.63	pCi/g		AAK 02/03/05	0036	397383	7
Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)												
Plutonium-241	U	5.91	+/-14.7	12.3	+/-14.8	24.9	pCi/g		RDD 02/09/05	1745	399858	8

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-Liner
Sample ID: 129519001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)											
Technetium-99	U	0.274	+/-0.338	0.279	+/-0.338	0.567	pCi/g		NXL1 02/12/05	1333	399566 10

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	EPA 905.0 Modified
4	EML HASL 300, 4.5.2.3
5	DOE RESL Fe-1, Modified
6	DOE RESL Fe-1, Modified
7	DOE RESL Ni-1, Modified
8	DOE EML HASL-300, Pu-11-RC Modified
9	DOE EML HASL-300, Pu-11-RC Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	18 *	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	29	(15%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid High Rad (CT)	75	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	66	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	52	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	44	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid RADII -I	45	

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.

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Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-Liner
Sample ID: 129519001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–1C–01	Project:	YANK01304
Sample ID:	129519002	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	6.44%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Alphaspec Am241, Cm, Solid–TRU2,ALL2 High Rad (CT)													
Americium–241	U	0.0269	+/–0.0277	0.0147	+/–0.0279	0.0416	pCi/g		RDD	02/03/05	1621	397378	1
Curium–242	U	–0.0102	+/–0.0142	0.0168	+/–0.0142	0.0474	pCi/g						
Curium–243/244	U	0.00449	+/–0.0264	0.0209	+/–0.0264	0.0539	pCi/g						
Alphaspec Pu, Solid–TRU2,ALL2 High Rad (CT)													
Plutonium–238	U	0.0108	+/–0.0368	0.0291	+/–0.0368	0.068	pCi/g		RDD	02/01/05	2049	397379	2
Plutonium–239/240	U	0.0253	+/–0.0255	0.0145	+/–0.0256	0.0389	pCi/g						
GFPC, Sr90, solid High Rad (CT)													
Strontium–90		0.0958	+/–0.0158	0.0108	+/–0.027	0.0221	pCi/g		AAK	02/04/05	0423	397381	3
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)													
Actinium–228	U	–2.2	+/–4.61	3.57	+/–4.52	7.22	pCi/g		ADD	01/28/05	1034	397377	4
Americium–241	U	4.95	+/–5.28	2.72	+/–5.17	5.49	pCi/g						
Bismuth–212	U	2.44	+/–9.69	6.61	+/–9.50	13.4	pCi/g						
Bismuth–214	U	1.45	+/–1.98	1.36	+/–1.94	2.75	pCi/g						
Cesium–134		4.54	+/–1.92	0.978	+/–1.88	1.98	pCi/g						
Cesium–137	U	–0.0376	+/–1.02	0.793	+/–0.996	1.61	pCi/g						
Cobalt–60		301	+/–17.4	0.543	+/–17.1	1.12	pCi/g						
Europium–152		515	+/–36.1	1.52	+/–35.4	3.07	pCi/g						
Europium–154		50.9	+/–7.12	3.60	+/–6.97	7.30	pCi/g						
Europium–155	U	–0.571	+/–2.23	1.59	+/–2.18	3.19	pCi/g						
Lead–212	U	0.298	+/–1.07	0.782	+/–1.05	1.58	pCi/g						
Lead–214	U	–3.58	+/–1.49	1.03	+/–1.46	2.08	pCi/g						
Manganese–54	U	0.0107	+/–1.19	0.925	+/–1.16	1.87	pCi/g						
Niobium–94	U	–0.156	+/–0.913	0.710	+/–0.894	1.44	pCi/g						
Potassium–40		9.28	+/–3.93	3.77	+/–3.85	7.92	pCi/g						
Radium–226	U	1.45	+/–1.98	1.36	+/–1.94	2.75	pCi/g						
Silver–108m	U	–0.35	+/–0.735	0.536	+/–0.720	1.09	pCi/g						
Thallium–208	U	0.572	+/–0.977	0.746	+/–0.958	1.51	pCi/g						
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)													
Tritium		3340	+/–65.9	6.61	+/–233	13.2	pCi/g		NXL1	02/01/05	1600	397385	5
Laboratory Composite – RADII													
Liquid Scint C14, Solid–HTD2,ALL2 High Rad (CT)													
Carbon–14		2.35	+/–0.376	0.266	+/–0.378	0.545	pCi/g		NXL1	02/02/05	1457	397386	7
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)													

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-01
Sample ID: 129519002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		403	+/-12.1	4.24	+/-22.4	8.67	pCi/g		AAK	02/10/05	0024	397382	8
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		2.56	+/-1.09	0.868	+/-1.09	1.77	pCi/g		AAK	02/03/05	0208	397383	9
Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-241	U	0.359	+/-1.78	1.49	+/-1.78	3.02	pCi/g		RDD	02/09/05	1949	399858	10
Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)													
Technetium-99	U	0.269	+/-0.435	0.361	+/-0.435	0.733	pCi/g		NXL1	02/12/05	1538	399566	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
GL-RAD-A-026	Laboratory sample composite	ADD	01/27/05	1532	397374

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	EPA 905.0 Modified
4	EML HASL 300, 4.5.2.3
5	EPA 906.0 Modified
6	GL-RAD-A-026
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Pu-11-RC Modified
11	DOE EML HASL-300, Pu-11-RC Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	86	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	91	(15%-125%)

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-01
Sample ID: 129519002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, solid High Rad (CT)			69		(25%–125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			79						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			70						
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			89						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid RADII -I			42						

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–1C–02	Project:	YANK01304
Sample ID:	129519003	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	5.44%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Alphaspec Am241, Cm, Solid–TRU2,ALL2 High Rad (CT)												
Americium–241	U	0.0222	+/–0.0288	0.0179	+/–0.0289	0.0477	pCi/g		RDD 02/03/05	1621	397378	1
Curium–242	U	0.00506	+/–0.0222	0.0166	+/–0.0222	0.0469	pCi/g					
Curium–243/244	U	0.0222	+/–0.0337	0.0231	+/–0.0338	0.0583	pCi/g					
Alphaspec Pu, Solid–TRU2,ALL2 High Rad (CT)												
Plutonium–238	U	0.021	+/–0.0574	0.0479	+/–0.0574	0.139	pCi/g		RDD 02/01/05	1116	397379	2
Plutonium–239/240	U	0.0444	+/–0.0644	0.0404	+/–0.0646	0.124	pCi/g					
GFPC, Sr90, solid High Rad (CT)												
Strontium–90		0.159	+/–0.0317	0.023	+/–0.0543	0.0471	pCi/g		AAK 02/04/05	0423	397381	3
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	0.145	+/–3.55	2.74	+/–3.48	5.54	pCi/g		ADD 01/28/05	1035	397377	4
Americium–241	U	0.418	+/–1.76	1.22	+/–1.73	2.47	pCi/g					
Bismuth–212	U	5.97	+/–7.23	4.94	+/–7.08	10.0	pCi/g					
Bismuth–214	U	0.974	+/–1.43	0.983	+/–1.40	1.99	pCi/g					
Cesium–134		2.92	+/–1.56	0.736	+/–1.52	1.49	pCi/g					
Cesium–137	U	0.130	+/–0.861	0.585	+/–0.844	1.19	pCi/g					
Cobalt–60		229	+/–14.7	0.423	+/–14.4	0.875	pCi/g					
Europium–152		407	+/–27.6	1.07	+/–27.0	2.17	pCi/g					
Europium–154		37.4	+/–5.69	1.42	+/–5.57	2.91	pCi/g					
Europium–155	U	1.63	+/–1.52	1.07	+/–1.49	2.16	pCi/g					
Lead–212	U	0.207	+/–0.731	0.550	+/–0.717	1.11	pCi/g					
Lead–214	U	–0.213	+/–1.02	0.758	+/–0.998	1.54	pCi/g					
Manganese–54	U	–0.488	+/–0.911	0.698	+/–0.893	1.41	pCi/g					
Niobium–94	U	–0.102	+/–0.691	0.536	+/–0.677	1.09	pCi/g					
Potassium–40	U	0.00	+/–5.81	4.72	+/–5.69	9.73	pCi/g					
	UI											
Radium–226	U	0.974	+/–1.43	0.983	+/–1.40	1.99	pCi/g					
Silver–108m	U	–0.296	+/–0.524	0.386	+/–0.514	0.782	pCi/g					
Thallium–208	U	0.506	+/–0.819	0.564	+/–0.803	1.14	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		2490	+/–49.4	5.70	+/–175	11.4	pCi/g		NXL1 02/01/05	1612	397385	5
Laboratory Composite – RADII												
Liquid Scint C14, Solid–HTD2,ALL2 High Rad (CT)												
Carbon–14		1.48	+/–0.357	0.267	+/–0.357	0.547	pCi/g		NXL1 02/02/05	1559	397386	7

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Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-02
Sample ID: 129519003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													
Iron-55		371	+/-8.90	2.99	+/-18.2	6.09	pCi/g		AAK	02/03/05	1005	397382	8
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)													
Nickel-63		2.62	+/-1.12	0.896	+/-1.12	1.82	pCi/g		AAK	02/03/05	0340	397383	9
Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-241	U	1.06	+/-1.74	1.44	+/-1.74	2.92	pCi/g		RDD	02/09/05	2153	399858	10
Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)													
Technetium-99	U	0.404	+/-0.363	0.298	+/-0.363	0.605	pCi/g		NXL1	02/12/05	1743	399566	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
GL-RAD-A-026	Laboratory sample composite	ADD	01/27/05	1532	397374

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	EPA 905.0 Modified
4	EML HASL 300, 4.5.2.3
5	EPA 906.0 Modified
6	GL-RAD-A-026
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Pu-11-RC Modified
11	DOE EML HASL-300, Pu-11-RC Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TR1	93	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	93	(15%-125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-02
Sample ID: 129519003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, solid High Rad (CT)			42		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			83						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			64						
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			82						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid RADII -I			50						

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–1C–03	Project:	YANK01304
Sample ID:	129519004	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	4.66%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	4.46	+/–3.59	2.75	+/–3.52	5.61	pCi/g		ADD 01/28/05	1035	397377	1
Americium–241	U	0.164	+/–2.85	1.85	+/–2.79	3.76	pCi/g					
Bismuth–212	U	–7.52	+/–6.83	5.02	+/–6.69	10.2	pCi/g					
Bismuth–214	U	1.01	+/–1.28	0.991	+/–1.25	2.02	pCi/g					
Cesium–134	U	1.45	+/–1.27	0.757	+/–1.24	1.54	pCi/g					
Cesium–137	U	0.351	+/–0.639	0.591	+/–0.626	1.21	pCi/g					
Cobalt–60		154	+/–10.3	0.430	+/–10.1	0.905	pCi/g					
Europium–152		296	+/–20.8	1.06	+/–20.3	2.16	pCi/g					
Europium–154		24.8	+/–4.45	1.41	+/–4.36	2.94	pCi/g					
Europium–155	U	0.552	+/–1.51	1.10	+/–1.48	2.22	pCi/g					
Lead–212	U	0.195	+/–0.920	0.545	+/–0.902	1.11	pCi/g					
Lead–214	U	–0.117	+/–1.04	0.743	+/–1.02	1.52	pCi/g					
Manganese–54	U	0.160	+/–0.917	0.697	+/–0.899	1.42	pCi/g					
Niobium–94	U	0.893	+/–0.702	0.548	+/–0.688	1.12	pCi/g					
Potassium–40		9.73	+/–6.93	2.87	+/–6.79	6.19	pCi/g					
Radium–226	U	1.01	+/–1.28	0.991	+/–1.25	2.02	pCi/g					
Silver–108m	U	–0.241	+/–0.488	0.371	+/–0.479	0.759	pCi/g					
Thallium–208	U	0.543	+/–0.808	0.555	+/–0.792	1.13	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		1900	+/–37.8	5.03	+/–135	10.1	pCi/g		NXL1 02/01/05	1627	397385	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		230	+/–6.10	2.41	+/–11.2	4.90	pCi/g		AAK 02/03/05	1109	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	0.756	+/–1.12	0.923	+/–1.12	1.88	pCi/g		AAK 02/03/05	0726	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	ADD	01/28/05	0858	397375
GL–RAD–A–026	Laboratory sample composite	ADD	01/27/05	1532	397374

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-03
Sample ID: 129519004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	86	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	67	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-C-1C-04	Project:	YANK01304
Sample ID:	129519005	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	4.59%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	2.91	+/-3.76	1.95	+/-3.69	4.01	pCi/g		ADD 01/28/05	1036	397377	1
Americium-241	U	0.247	+/-1.47	0.957	+/-1.44	1.96	pCi/g					
Bismuth-212	U	0.462	+/-5.27	3.57	+/-5.17	7.35	pCi/g					
Bismuth-214	U	1.06	+/-1.35	0.788	+/-1.32	1.62	pCi/g					
Cesium-134	U	0.795	+/-0.717	0.568	+/-0.702	1.17	pCi/g					
Cesium-137	U	0.447	+/-0.559	0.442	+/-0.548	0.910	pCi/g					
Cobalt-60		79.9	+/-5.60	0.309	+/-5.49	0.665	pCi/g					
Europium-152		154	+/-11.4	0.813	+/-11.1	1.67	pCi/g					
Europium-154		8.94	+/-2.79	1.79	+/-2.73	3.71	pCi/g					
Europium-155	U	0.761	+/-1.05	0.768	+/-1.02	1.57	pCi/g					
Lead-212	U	0.00	+/-0.943	0.436	+/-0.924	0.891	pCi/g					
	UI											
Lead-214	U	0.528	+/-0.762	0.566	+/-0.746	1.16	pCi/g					
Manganese-54	U	0.780	+/-0.805	0.476	+/-0.789	0.982	pCi/g					
Niobium-94	U	-0.0219	+/-0.476	0.366	+/-0.466	0.755	pCi/g					
Potassium-40	U	0.00	+/-6.78	2.56	+/-6.65	5.61	pCi/g					
	UI											
Radium-226	U	1.06	+/-1.35	0.788	+/-1.32	1.62	pCi/g					
Silver-108m	U	0.407	+/-0.405	0.304	+/-0.397	0.626	pCi/g					
Thallium-208	U	0.735	+/-0.596	0.427	+/-0.584	0.877	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		1140	+/-22.9	3.88	+/-79.4	7.76	pCi/g		NXL1 02/01/05	1651	397385	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55		155	+/-5.10	2.49	+/-7.99	5.03	pCi/g		AAK 02/03/05	1302	397382	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	1.64	+/-1.25	1.03	+/-1.26	2.09	pCi/g		AAK 02/03/05	0858	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
		ADD	01/27/05	1532	397374

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-1C-04
Sample ID: 129519005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL-RAD-A-026 Laboratory sample composite											

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	72	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	66	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-C-2C-05	Project:	YANK01304
Sample ID:	129519006	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	4.97%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	2.05	+/-1.59	1.26	+/-1.56	2.61	pCi/g		ADD 01/28/05	1037	397377	1
Americium-241	U	0.673	+/-0.893	0.589	+/-0.875	1.21	pCi/g					
Bismuth-212	U	-0.37	+/-3.40	2.25	+/-3.33	4.67	pCi/g					
Bismuth-214	U	0.565	+/-0.696	0.469	+/-0.682	0.972	pCi/g					
Cesium-134	U	-0.0656	+/-0.449	0.339	+/-0.440	0.703	pCi/g					
Cesium-137	U	0.162	+/-0.343	0.268	+/-0.336	0.556	pCi/g					
Cobalt-60		36.4	+/-2.56	0.201	+/-2.51	0.439	pCi/g					
Europium-152		68.4	+/-5.19	0.498	+/-5.09	1.03	pCi/g					
Europium-154		4.91	+/-1.58	1.15	+/-1.55	2.40	pCi/g					
Europium-155	U	0.145	+/-0.644	0.465	+/-0.631	0.952	pCi/g					
Lead-212	U	0.354	+/-0.453	0.282	+/-0.444	0.579	pCi/g					
Lead-214	U	0.587	+/-0.601	0.369	+/-0.589	0.764	pCi/g					
Manganese-54	U	0.168	+/-0.408	0.315	+/-0.399	0.655	pCi/g					
Niobium-94	U	0.261	+/-0.313	0.247	+/-0.306	0.513	pCi/g					
Potassium-40		7.03	+/-3.93	1.55	+/-3.85	3.47	pCi/g					
Radium-226	U	0.565	+/-0.696	0.419	+/-0.682	0.873	pCi/g					
Silver-108m	U	-0.0167	+/-0.232	0.178	+/-0.227	0.370	pCi/g					
Thallium-208	U	0.327	+/-0.392	0.276	+/-0.384	0.571	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		718	+/-15.5	3.19	+/-49.4	6.38	pCi/g		NXL1 02/01/05	1723	397385	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55		73.0	+/-4.63	2.71	+/-5.43	5.48	pCi/g		AAK 02/03/05	1505	397382	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.234	+/-1.17	0.982	+/-1.17	2.00	pCi/g		AAK 02/03/05	1030	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
GL-RAD-A-026	Laboratory sample composite	ADD	01/27/05	1532	397374

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–2C–05
Sample ID: 129519006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	75	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–2C–06	Project:	YANK01304
Sample ID:	129519007	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	4.86%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	0.528	+/–1.11	0.875	+/–1.09	1.82	pCi/g		ADD 01/28/05	1045	397377	1
Americium–241	U	–0.262	+/–0.643	0.440	+/–0.630	0.908	pCi/g					
Bismuth–212	U	1.71	+/–2.37	1.68	+/–2.32	3.48	pCi/g					
Bismuth–214	U	0.513	+/–0.445	0.364	+/–0.437	0.754	pCi/g					
Cesium–134	U	0.322	+/–0.349	0.260	+/–0.342	0.539	pCi/g					
Cesium–137	U	0.0455	+/–0.244	0.193	+/–0.239	0.402	pCi/g					
Cobalt–60		22.0	+/–1.61	0.184	+/–1.58	0.394	pCi/g					
Europium–152		39.4	+/–3.34	0.387	+/–3.27	0.801	pCi/g					
Europium–154		2.79	+/–0.978	0.739	+/–0.959	1.55	pCi/g					
Europium–155	U	0.232	+/–0.495	0.353	+/–0.485	0.724	pCi/g					
Lead–212	U	0.403	+/–0.429	0.226	+/–0.420	0.463	pCi/g					
Lead–214	U	0.00	+/–0.653	0.328	+/–0.640	0.677	pCi/g					
	UI											
Manganese–54	U	–0.0182	+/–0.286	0.222	+/–0.280	0.461	pCi/g					
Niobium–94	U	0.0469	+/–0.218	0.172	+/–0.213	0.358	pCi/g					
Potassium–40		14.0	+/–3.96	1.02	+/–3.88	2.31	pCi/g					
Radium–226	U	0.513	+/–0.445	0.364	+/–0.437	0.754	pCi/g					
Silver–108m	U	–0.111	+/–0.175	0.127	+/–0.172	0.264	pCi/g					
Thallium–208	U	0.377	+/–0.293	0.183	+/–0.287	0.379	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		506	+/–13.5	3.32	+/–36.4	6.65	pCi/g		NXL1 02/01/05	1755	397385	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		30.7	+/–3.43	2.15	+/–3.63	4.35	pCi/g		AAK 02/03/05	1709	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	0.392	+/–1.22	1.01	+/–1.22	2.06	pCi/g		AAK 02/03/05	1202	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	ADD	01/28/05	0858	397375
GL–RAD–A–026	Laboratory sample composite	ADD	01/27/05	1532	397374

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Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–2C–06
Sample ID: 129519007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	85	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	82	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–2C–07	Project:	YANK01304
Sample ID:	129519008	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	4.71%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	–0.208	+/–0.685	0.502	+/–0.671	1.08	pCi/g		ADD 01/28/05	1045	397377	1
Americium–241	U	0.258	+/–0.593	0.387	+/–0.581	0.814	pCi/g					
Bismuth–212	U	–0.55	+/–1.53	0.971	+/–1.50	2.07	pCi/g					
Bismuth–214	U	0.00	+/–0.301	0.254	+/–0.295	0.535	pCi/g					
	UI											
Cesium–134	U	0.0713	+/–0.182	0.143	+/–0.178	0.306	pCi/g					
Cesium–137	U	0.00	+/–0.290	0.0983	+/–0.284	0.213	pCi/g					
	UI											
Cobalt–60		6.30	+/–0.684	0.0852	+/–0.670	0.200	pCi/g					
Europium–152		9.98	+/–1.05	0.219	+/–1.02	0.465	pCi/g					
Europium–154		1.31	+/–0.593	0.458	+/–0.581	0.997	pCi/g					
Europium–155	U	–0.0453	+/–0.312	0.220	+/–0.306	0.460	pCi/g					
Lead–212	U	0.00	+/–0.254	0.150	+/–0.249	0.313	pCi/g					
	UI											
Lead–214	U	0.245	+/–0.332	0.199	+/–0.325	0.417	pCi/g					
Manganese–54	U	0.0122	+/–0.172	0.131	+/–0.168	0.280	pCi/g					
Niobium–94	U	0.0226	+/–0.132	0.102	+/–0.129	0.218	pCi/g					
Potassium–40		8.16	+/–2.35	1.18	+/–2.30	2.66	pCi/g					
Radium–226	U	0.00	+/–0.301	0.254	+/–0.295	0.535	pCi/g					
	UI											
Silver–108m	U	0.049	+/–0.118	0.0833	+/–0.116	0.178	pCi/g					
Thallium–208	U	0.158	+/–0.151	0.123	+/–0.148	0.261	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		242	+/–9.69	3.29	+/–18.5	6.59	pCi/g		NXL1 02/01/05	1827	397385	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		9.95	+/–3.48	2.34	+/–3.50	4.74	pCi/g		AAK 02/03/05	1913	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	0.0356	+/–1.24	1.04	+/–1.24	2.12	pCi/g		AAK 02/03/05	1334	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0732	397376

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-2C-07
Sample ID: 129519008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				ADD	01/28/05	0858	397375			
GL-RAD-A-026	Laboratory sample composite				ADD	01/27/05	1532	397374			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	82	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	76	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-C-2C-08	Project:	YANK01304
Sample ID:	129519009	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	6.26%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.329	+/-0.752	0.612	+/-0.737	1.31	pCi/g		ADD 01/28/05	1046	397377	1
Americium-241	U	-0.18	+/-0.545	0.367	+/-0.534	0.769	pCi/g					
Bismuth-212	U	1.24	+/-1.48	1.07	+/-1.45	2.31	pCi/g					
Bismuth-214	U	0.308	+/-0.407	0.249	+/-0.399	0.530	pCi/g					
Cesium-134	U	-0.122	+/-0.197	0.146	+/-0.194	0.317	pCi/g					
Cesium-137	U	0.0579	+/-0.180	0.134	+/-0.176	0.288	pCi/g					
Cobalt-60		4.75	+/-0.728	0.122	+/-0.713	0.281	pCi/g					
Europium-152		6.26	+/-0.867	0.257	+/-0.850	0.547	pCi/g					
Europium-154	U	0.900	+/-0.531	0.505	+/-0.521	1.11	pCi/g					
Europium-155	U	-0.273	+/-0.344	0.228	+/-0.337	0.479	pCi/g					
Lead-212	U	0.00	+/-0.294	0.181	+/-0.289	0.376	pCi/g					
	UI											
Lead-214	U	0.00	+/-0.459	0.242	+/-0.450	0.507	pCi/g					
	UI											
Manganese-54	U	0.0144	+/-0.173	0.137	+/-0.170	0.297	pCi/g					
Niobium-94	U	-0.0928	+/-0.156	0.110	+/-0.153	0.238	pCi/g					
Potassium-40		13.5	+/-3.35	0.867	+/-3.29	2.11	pCi/g					
Radium-226	U	0.308	+/-0.407	0.216	+/-0.399	0.465	pCi/g					
Silver-108m	U	-0.0261	+/-0.118	0.0872	+/-0.116	0.188	pCi/g					
Thallium-208	U	0.0938	+/-0.173	0.136	+/-0.170	0.290	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		116	+/-7.31	3.32	+/-10.6	6.63	pCi/g		NXL1 02/01/05	1859	397385	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	1.03	+/-3.82	2.64	+/-3.82	5.33	pCi/g		AAK 02/03/05	2117	397382	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.14	+/-1.33	1.12	+/-1.33	2.28	pCi/g		AAK 02/03/05	1506	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
		ADD	01/27/05	1532	397374

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-2C-08
Sample ID: 129519009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL-RAD-A-026 Laboratory sample composite											

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	71	

Notes:
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X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–3C–09	Project:	YANK01304
Sample ID:	129519010	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	5.48%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228		1.21	+/–0.631	0.264	+/–0.618	0.604	pCi/g		ADD 01/28/05	1248	397377	1
Americium–241	U	–0.366	+/–0.517	0.301	+/–0.506	0.645	pCi/g					
Bismuth–212	U	–0.171	+/–0.883	0.652	+/–0.865	1.45	pCi/g					
Bismuth–214		0.490	+/–0.305	0.166	+/–0.299	0.361	pCi/g					
Cesium–134	U	0.0123	+/–0.119	0.0912	+/–0.116	0.204	pCi/g					
Cesium–137	U	0.0371	+/–0.107	0.0846	+/–0.104	0.187	pCi/g					
Cobalt–60		1.56	+/–0.367	0.0823	+/–0.359	0.197	pCi/g					
Europium–152		2.43	+/–0.559	0.198	+/–0.547	0.425	pCi/g					
Europium–154	U	0.123	+/–0.306	0.262	+/–0.300	0.608	pCi/g					
Europium–155	U	0.110	+/–0.242	0.177	+/–0.237	0.376	pCi/g					
Lead–212		0.510	+/–0.226	0.0905	+/–0.221	0.194	pCi/g					
Lead–214	U UI	0.00	+/–0.289	0.183	+/–0.283	0.387	pCi/g					
Manganese–54	U	–0.0197	+/–0.119	0.0881	+/–0.117	0.196	pCi/g					
Niobium–94	U	–0.0102	+/–0.102	0.0763	+/–0.0998	0.168	pCi/g					
Potassium–40		12.9	+/–2.97	0.844	+/–2.91	2.01	pCi/g					
Radium–226		0.490	+/–0.305	0.166	+/–0.299	0.361	pCi/g					
Silver–108m	U	0.044	+/–0.0813	0.0657	+/–0.0796	0.143	pCi/g					
Thallium–208	U	0.143	+/–0.125	0.105	+/–0.123	0.226	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		93.7	+/–6.54	3.12	+/–8.91	6.25	pCi/g		NXL1 02/01/05	1931	397385	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55	U	–2.32	+/–2.94	2.03	+/–2.94	4.11	pCi/g		AAK 02/03/05	2320	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	–1.03	+/–1.18	1.01	+/–1.18	2.05	pCi/g		AAK 02/03/05	1638	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0732	397376
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	ADD	01/28/05	0858	397375
GL–RAD–A–026	Laboratory sample composite	ADD	01/27/05	1532	397374

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–3C–09
Sample ID: 129519010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	97	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	66	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–3C–010	Project:	YANK01304
Sample ID:	129519011	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	5.45%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	0.883	+/–0.677	0.601	+/–0.664	1.31	pCi/g		ADD 01/28/05	1249	397377	1
Americium–241	U	–0.665	+/–0.630	0.336	+/–0.618	0.715	pCi/g					
Bismuth–212	U	–0.471	+/–1.54	0.938	+/–1.51	2.07	pCi/g					
Bismuth–214	U	0.410	+/–0.339	0.283	+/–0.333	0.606	pCi/g					
Cesium–134	U	0.142	+/–0.172	0.148	+/–0.168	0.326	pCi/g					
Cesium–137	U	0.103	+/–0.153	0.125	+/–0.150	0.274	pCi/g					
Cobalt–60		1.06	+/–0.348	0.147	+/–0.341	0.340	pCi/g					
Europium–152		1.32	+/–0.608	0.252	+/–0.596	0.544	pCi/g					
Europium–154	U	0.00372	+/–0.492	0.385	+/–0.482	0.891	pCi/g					
Europium–155	U	–0.262	+/–0.313	0.202	+/–0.307	0.432	pCi/g					
Lead–212		0.760	+/–0.336	0.127	+/–0.329	0.272	pCi/g					
Lead–214	U	0.00	+/–0.492	0.176	+/–0.483	0.382	pCi/g					
	UI											
Manganese–54	U	0.0587	+/–0.159	0.130	+/–0.155	0.289	pCi/g					
Niobium–94	U	0.0459	+/–0.139	0.109	+/–0.136	0.240	pCi/g					
Potassium–40		10.5	+/–3.88	1.30	+/–3.80	3.05	pCi/g					
Radium–226	U	0.410	+/–0.339	0.283	+/–0.333	0.606	pCi/g					
Silver–108m	U	0.0672	+/–0.113	0.0906	+/–0.111	0.197	pCi/g					
Thallium–208	U	0.307	+/–0.163	0.145	+/–0.160	0.311	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		58.8	+/–5.94	3.35	+/–7.14	6.69	pCi/g		NXL1 02/01/05	2003	397385	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55	U	–0.324	+/–3.45	2.40	+/–3.45	4.85	pCi/g		AAK 02/04/05	0124	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	–0.855	+/–0.906	0.775	+/–0.907	1.58	pCi/g		AAK 02/03/05	1809	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0733	397376
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	ADD	01/28/05	0858	397375
GL–RAD–A–026	Laboratory sample composite	ADD	01/27/05	1532	397374

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Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–3C–010
Sample ID: 129519011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	82	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	91	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002–0000–188–C–3C–011	Project:	YANK01304
Sample ID:	129519012	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04–JAN–05		
Receive Date:	26–JAN–05		
Collector:	Client		
Moisture:	4.45%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)													
Actinium–228		1.20	+/–0.813	0.305	+/–0.797	0.701	pCi/g		ADD	01/28/05	1307	397377	1
Americium–241	U	0.0457	+/–0.473	0.295	+/–0.464	0.627	pCi/g						
Bismuth–212	U	0.699	+/–0.969	0.653	+/–0.950	1.48	pCi/g						
Bismuth–214	U	0.267	+/–0.348	0.259	+/–0.341	0.555	pCi/g						
Cesium–134	U	0.097	+/–0.143	0.111	+/–0.141	0.247	pCi/g						
Cesium–137	U	–0.048	+/–0.121	0.0891	+/–0.118	0.200	pCi/g						
Cobalt–60	U	0.183	+/–0.281	0.118	+/–0.276	0.272	pCi/g						
Europium–152		0.862	+/–0.414	0.211	+/–0.406	0.460	pCi/g						
Europium–154	U	0.283	+/–0.370	0.312	+/–0.362	0.720	pCi/g						
Europium–155	U	0.0845	+/–0.280	0.199	+/–0.274	0.423	pCi/g						
Lead–212		0.462	+/–0.271	0.128	+/–0.266	0.272	pCi/g						
Lead–214	U	0.00	+/–0.450	0.159	+/–0.441	0.345	pCi/g						
	UI												
Manganese–54	U	–0.0216	+/–0.141	0.107	+/–0.138	0.239	pCi/g						
Niobium–94	U	–0.0258	+/–0.116	0.0879	+/–0.114	0.195	pCi/g						
Potassium–40		5.68	+/–3.59	0.807	+/–3.52	1.97	pCi/g						
Radium–226	U	0.267	+/–0.348	0.189	+/–0.341	0.415	pCi/g						
Silver–108m	U	0.0108	+/–0.0954	0.0721	+/–0.0935	0.159	pCi/g						
Thallium–208	U	0.236	+/–0.285	0.127	+/–0.279	0.274	pCi/g						
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)													
Tritium		29.4	+/–5.03	3.32	+/–5.40	6.64	pCi/g		NXL1	02/01/05	2035	397385	2
Laboratory Composite – RADII													
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)													
Iron–55	U	–10	+/–2.96	2.13	+/–2.99	4.30	pCi/g		AAK	02/04/05	0405	397382	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)													
Nickel–63	U	–0.353	+/–0.992	0.839	+/–0.992	1.71	pCi/g		AAK	02/03/05	1942	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/31/05	0733	397376
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	ADD	01/28/05	0858	397375
GL–RAD–A–026	Laboratory sample composite	ADD	01/27/05	1532	397374

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002-0000-188-C-3C-011
Sample ID: 129519012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	86	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	78	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-C-3C-012	Project:	YANK01304
Sample ID:	129519013	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	4.69%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228		0.875	+/-0.559	0.225	+/-0.548	0.540	pCi/g		ADD 01/28/05	1413	397377	1
Americium-241	U	0.463	+/-0.425	0.288	+/-0.416	0.608	pCi/g					
Bismuth-212	U	0.871	+/-0.948	0.816	+/-0.929	1.80	pCi/g					
Bismuth-214	U	0.00	+/-0.387	0.244	+/-0.379	0.523	pCi/g					
	UI											
Cesium-134	U	0.265	+/-0.193	0.130	+/-0.189	0.284	pCi/g					
Cesium-137	U	0.0157	+/-0.128	0.101	+/-0.125	0.222	pCi/g					
Cobalt-60	U	0.105	+/-0.143	0.129	+/-0.140	0.295	pCi/g					
Europium-152	U	-0.13	+/-0.279	0.197	+/-0.273	0.430	pCi/g					
Europium-154	U	-0.162	+/-0.420	0.311	+/-0.412	0.722	pCi/g					
Europium-155	U	0.043	+/-0.273	0.192	+/-0.268	0.406	pCi/g					
Lead-212	U	0.00	+/-0.308	0.175	+/-0.301	0.364	pCi/g					
	UI											
Lead-214	U	0.00	+/-0.305	0.162	+/-0.299	0.349	pCi/g					
	UI											
Manganese-54	U	0.0954	+/-0.137	0.115	+/-0.135	0.254	pCi/g					
Niobium-94	U	0.0314	+/-0.0945	0.0768	+/-0.0926	0.172	pCi/g					
Potassium-40		8.64	+/-2.61	0.862	+/-2.56	2.10	pCi/g					
Radium-226		0.693	+/-0.387	0.147	+/-0.379	0.328	pCi/g					
Silver-108m	U	-0.0597	+/-0.101	0.0694	+/-0.099	0.153	pCi/g					
Thallium-208	U	0.00	+/-0.191	0.125	+/-0.187	0.268	pCi/g					
	UI											
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		17.4	+/-4.41	3.11	+/-4.56	6.22	pCi/g		NXL1 02/02/05	0220	397385	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	-12.7	+/-3.07	2.22	+/-3.11	4.49	pCi/g		AAK 02/04/05	0609	397382	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.817	+/-1.10	0.933	+/-1.10	1.90	pCi/g		AAK 02/03/05	2113	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0733	397376

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–3C–012
Sample ID: 129519013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021				ADD	01/28/05	0858	397375			
GL–RAD–A–026	Laboratory sample composite				ADD	01/27/05	1532	397374			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	72	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID:	3002-0000-188-C-3C-013	Project:	YANK01304
Sample ID:	129519014	Client ID:	YANK001
Matrix:	Solid	Vol. Recv.:	
Collect Date:	04-JAN-05		
Receive Date:	26-JAN-05		
Collector:	Client		
Moisture:	4.71%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U UI	0.00	+/-0.715	0.529	+/-0.701	1.15	pCi/g		ADD 01/28/05	1414	397377	1
Americium-241	U	0.195	+/-0.425	0.263	+/-0.416	0.563	pCi/g					
Bismuth-212	U	0.510	+/-0.923	0.761	+/-0.905	1.70	pCi/g					
Bismuth-214		0.696	+/-0.355	0.166	+/-0.348	0.368	pCi/g					
Cesium-134	U	0.0689	+/-0.104	0.0897	+/-0.102	0.206	pCi/g					
Cesium-137	U	0.0556	+/-0.121	0.0984	+/-0.119	0.218	pCi/g					
Cobalt-60	U	0.0831	+/-0.248	0.111	+/-0.243	0.262	pCi/g					
Europium-152	U	-0.0722	+/-0.295	0.206	+/-0.289	0.448	pCi/g					
Europium-154	U	0.310	+/-0.320	0.308	+/-0.314	0.720	pCi/g					
Europium-155	U	0.173	+/-0.235	0.178	+/-0.230	0.380	pCi/g					
Lead-212	U UI	0.00	+/-0.322	0.172	+/-0.315	0.360	pCi/g					
Lead-214		0.722	+/-0.376	0.160	+/-0.368	0.346	pCi/g					
Manganese-54	U	-0.0155	+/-0.126	0.0936	+/-0.124	0.212	pCi/g					
Niobium-94	U	-0.0197	+/-0.110	0.0815	+/-0.108	0.183	pCi/g					
Potassium-40		9.29	+/-2.95	0.689	+/-2.89	1.77	pCi/g					
Radium-226		0.696	+/-0.355	0.166	+/-0.348	0.368	pCi/g					
Silver-108m	U	0.0443	+/-0.087	0.071	+/-0.0853	0.157	pCi/g					
Thallium-208	U	0.0753	+/-0.143	0.0822	+/-0.140	0.184	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		17.4	+/-4.38	3.09	+/-4.54	6.17	pCi/g		NXL1 02/02/05	0252	397385	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	-5.16	+/-3.05	2.16	+/-3.06	4.36	pCi/g		AAK 02/04/05	0813	397382	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.571	+/-0.923	0.784	+/-0.923	1.60	pCi/g		AAK 02/03/05	2245	397383	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/31/05	0733	397376
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ADD	01/28/05	0858	397375
		ADD	01/27/05	1532	397374

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 14, 2005

Client Sample ID: 3002–0000–188–C–3C–013
Sample ID: 129519014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL–RAD–A–026 Laboratory sample composite											

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	83	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	84	

Notes:
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 14, 2005

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397377										
QC1200778823 129519001 DUP										
Actinium-228	U	1.30	U	0.184	pCi/g	150*		(0% - 100%)	ADD	01/28/05 15:25
	Uncert:	+/-9.59		+/-8.94						
	TPU:	+/-9.40		+/-8.76						
Americium-241	U	2.20	U	2.31	pCi/g	5		(0% - 100%)		
	Uncert:	+/-6.66		+/-3.95						
	TPU:	+/-6.53		+/-3.87						
Bismuth-212	U	-0.203	U	-10.5	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-15.5		+/-11.6						
	TPU:	+/-15.2		+/-11.3						
Bismuth-214	U	2.20	U	-0.145	pCi/g	N/A				
	Uncert:	+/-3.17		+/-2.36						
	TPU:	+/-3.11		+/-2.31						
Cesium-134	U	-0.879	U	0.115	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-2.51		+/-1.85						
	TPU:	+/-2.46		+/-1.81						
Cesium-137		126		138	pCi/g	9		(0% - 20%)		
	Uncert:	+/-9.82		+/-10.3						
	TPU:	+/-9.62		+/-10.1						
Cobalt-60		1050		1110	pCi/g	6		(0% - 20%)		
	Uncert:	+/-62.8		+/-62.5						
	TPU:	+/-61.5		+/-61.2						
Europium-152	U	3.56	U	3.93	pCi/g	10		(0% - 100%)		
	Uncert:	+/-5.05		+/-3.67						
	TPU:	+/-4.95		+/-3.60						
Europium-154	U	-0.349	U	0.837	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.39		+/-2.92						
	TPU:	+/-3.32		+/-2.86						
Europium-155	U	1.67	U	-2.01	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.57		+/-2.60						
	TPU:	+/-3.50		+/-2.55						
Lead-212	U	1.07	U	1.75	pCi/g	48		(0% - 20%)		
	Uncert:	+/-2.14		+/-1.67						
	TPU:	+/-2.09		+/-1.64						
Lead-214	U	3.74	U	-23.2	pCi/g	N/A				
	Uncert:	+/-3.14		+/-3.03						
	TPU:	+/-3.07		+/-2.97						
Manganese-54	U	0.807	U	-1.08	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-2.39		+/-1.81						
	TPU:	+/-2.34		+/-1.77						
Niobium-94	U	-0.0876	U	0.432	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.73		+/-1.28						
	TPU:	+/-1.69		+/-1.25						

QC Summary

Workorder: **129519**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397377										
Potassium-40	U	6.99	U	0.0355	pCi/g	198*		(0%-20%)		
	Uncert:	+/-14.5		+/-7.76						
	TPU:	+/-14.2		+/-7.60						
Radium-226	U	2.20	U	-0.145	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.17		+/-2.36						
	TPU:	+/-3.11		+/-2.31						
Silver-108m	U	-0.422	U	-1.12	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.45		+/-1.11						
	TPU:	+/-1.42		+/-1.08						
Thallium-208	U	-0.53	U	-0.0831	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.71		+/-1.25						
	TPU:	+/-1.68		+/-1.23						
QC1200778824 LCS										
Actinium-228				3.52	pCi/g					01/31/05 10:46
	Uncert:			+/-1.87						
	TPU:			+/-1.83						
Americium-241	23.4			25.8	pCi/g		110	(75%-125%)		
	Uncert:			+/-4.07						
	TPU:			+/-3.99						
Bismuth-212			U	0.697	pCi/g					
	Uncert:			+/-2.62						
	TPU:			+/-2.57						
Bismuth-214			U	-0.17	pCi/g					
	Uncert:			+/-0.579						
	TPU:			+/-0.567						
Cesium-134			U	-0.038	pCi/g					
	Uncert:			+/-0.374						
	TPU:			+/-0.367						
Cesium-137	9.11			9.80	pCi/g		108	(75%-125%)		
	Uncert:			+/-1.36						
	TPU:			+/-1.33						
Cobalt-60	13.2			14.4	pCi/g		109	(75%-125%)		
	Uncert:			+/-1.63						
	TPU:			+/-1.60						
Europium-152			U	0.315	pCi/g					
	Uncert:			+/-0.827						
	TPU:			+/-0.810						
Europium-154			U	-0.354	pCi/g					
	Uncert:			+/-0.647						
	TPU:			+/-0.634						
Europium-155			U	0.852	pCi/g					
	Uncert:			+/-0.866						
	TPU:			+/-0.848						
Lead-212			U	0.381	pCi/g					
	Uncert:			+/-0.687						
	TPU:			+/-0.673						
Lead-214			U	0.147	pCi/g					
	Uncert:			+/-0.610						

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397377										
	TPU:			+/-0.598						
Manganese-54			U	0.105	pCi/g					
	Uncert:			+/-0.364						
	TPU:			+/-0.357						
Niobium-94			U	0.141	pCi/g					
	Uncert:			+/-0.300						
	TPU:			+/-0.294						
Potassium-40			U	1.83	pCi/g					
	Uncert:			+/-2.78						
	TPU:			+/-2.73						
Radium-226			U	-0.17	pCi/g			(75%-125%)		
	Uncert:			+/-0.579						
	TPU:			+/-0.567						
Silver-108m			U	-0.0168	pCi/g					
	Uncert:			+/-0.297						
	TPU:			+/-0.291						
Thallium-208			U	0.0414	pCi/g					
	Uncert:			+/-0.285						
	TPU:			+/-0.279						
QC1200778822 MB										
Actinium-228			U	0.333	pCi/g					01/28/05 15:04
	Uncert:			+/-0.607						
	TPU:			+/-0.595						
Americium-241			U	-0.0878	pCi/g					
	Uncert:			+/-0.529						
	TPU:			+/-0.518						
Bismuth-212			U	0.773	pCi/g					
	Uncert:			+/-0.804						
	TPU:			+/-0.788						
Bismuth-214			U	0.105	pCi/g					
	Uncert:			+/-0.235						
	TPU:			+/-0.230						
Cesium-134			UUI	0.00	pCi/g					
	Uncert:			+/-0.385						
	TPU:			+/-0.377						
Cesium-137			U	0.0384	pCi/g					
	Uncert:			+/-0.106						
	TPU:			+/-0.104						
Cobalt-60			U	-0.0306	pCi/g					
	Uncert:			+/-0.103						
	TPU:			+/-0.101						
Europium-152			UUI	0.00	pCi/g					
	Uncert:			+/-0.323						
	TPU:			+/-0.317						
Europium-154			U	0.00422	pCi/g					
	Uncert:			+/-0.368						
	TPU:			+/-0.361						
Europium-155			U	-0.183	pCi/g					

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397377										
	Uncert:			+/-0.256						
	TPU:			+/-0.251						
Lead-212			U	0.144	pCi/g					
	Uncert:			+/-0.188						
	TPU:			+/-0.185						
Lead-214			U	0.182	pCi/g					
	Uncert:			+/-0.177						
	TPU:			+/-0.173						
Manganese-54			U	0.0574	pCi/g					
	Uncert:			+/-0.0933						
	TPU:			+/-0.0914						
Niobium-94			U	-0.00805	pCi/g					
	Uncert:			+/-0.0923						
	TPU:			+/-0.0905						
Potassium-40			UUI	0.00	pCi/g					
	Uncert:			+/-1.41						
	TPU:			+/-1.38						
Radium-226			U	0.105	pCi/g					
	Uncert:			+/-0.235						
	TPU:			+/-0.230						
Silver-108m			U	0.0968	pCi/g					
	Uncert:			+/-0.0792						
	TPU:			+/-0.0776						
Thallium-208			U	0.0457	pCi/g					
	Uncert:			+/-0.107						
	TPU:			+/-0.105						
Batch 397378										
QC1200778830 129519002 DUP										
Americium-241	U	0.0269	U	0.0235	pCi/g	14		(0% - 100%)	RDD	02/03/05 16:21
	Uncert:	+/-0.0277		+/-0.0276						
	TPU:	+/-0.0279		+/-0.0277						
Curium-242	U	-0.0102	U	0.00	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0142		+/-0.0105						
	TPU:	+/-0.0142		+/-0.0105						
Curium-243/244	U	0.00449	U	0.00471	pCi/g	5		(0% - 100%)		
	Uncert:	+/-0.0264		+/-0.0206						
	TPU:	+/-0.0264		+/-0.0206						
QC1200778832 LCS										
Americium-241	6.25			6.57	pCi/g		105	(75%-125%)		02/01/05 11:16
	Uncert:			+/-0.652						
	TPU:			+/-1.05						
Curium-242			U	0.000679	pCi/g					
	Uncert:			+/-0.0369						
	TPU:			+/-0.0369						
Curium-243/244	7.86			8.23	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.732						
	TPU:			+/-1.26						
QC1200778829 MB										

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397378										
Americium-241			U	0.0134	pCi/g					
Uncert:				+/-0.0291						
TPU:				+/-0.0291						
Curium-242			U	-2.200E-09	pCi/g					
Uncert:				+/-0.0256						
TPU:				+/-0.0256						
Curium-243/244			U	-0.0134	pCi/g					
Uncert:				+/-0.0472						
TPU:				+/-0.0472						
QC1200778831 129519002 MS										
Americium-241	14.5 U	0.0269		14.6	pCi/g		101	(75%-125%)		02/01/05 11:16
Uncert:		+/-0.0277		+/-1.53						
TPU:		+/-0.0279		+/-2.46						
Curium-242	U	-0.0102	U	0.0474	pCi/g					
Uncert:		+/-0.0142		+/-0.0929						
TPU:		+/-0.0142		+/-0.0931						
Curium-243/244	18.3 U	0.00449		17.9	pCi/g		98	(75%-125%)		
Uncert:		+/-0.0264		+/-1.70						
TPU:		+/-0.0264		+/-2.91						
Batch 397379										
QC1200778834 129519002 DUP										
Plutonium-238	U	0.0108	U	0.0073	pCi/g	39		(0% - 100%)	RDD	02/01/05 20:49
Uncert:		+/-0.0368		+/-0.032						
TPU:		+/-0.0368		+/-0.032						
Plutonium-239/240	U	0.0253	U	0.0474	pCi/g	61		(0% - 100%)		
Uncert:		+/-0.0255		+/-0.0358						
TPU:		+/-0.0256		+/-0.0359						
QC1200778836 LCS										
Plutonium-238			U	0.088	pCi/g			(75%-125%)		02/01/05 11:16
Uncert:				+/-0.0977						
TPU:				+/-0.0983						
Plutonium-239/240	5.57			6.74	pCi/g		121	(75%-125%)		
Uncert:				+/-0.688						
TPU:				+/-1.08						
QC1200778833 MB										
Plutonium-238			U	0.00127	pCi/g					02/01/05 11:16
Uncert:				+/-0.0487						
TPU:				+/-0.0487						
Plutonium-239/240			U	-0.0114	pCi/g					
Uncert:				+/-0.0129						
TPU:				+/-0.013						
QC1200778835 129519002 MS										
Plutonium-238	U	0.0108	U	0.0648	pCi/g			(75%-125%)		02/01/05 11:16
Uncert:		+/-0.0368		+/-0.149						
TPU:		+/-0.0368		+/-0.149						
Plutonium-239/240	12.9 U	0.0253		14.6	pCi/g		113	(75%-125%)		
Uncert:		+/-0.0255		+/-1.53						
TPU:		+/-0.0256		+/-2.41						
Batch 397381										

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397381										
QC1200778842 129519003 DUP										
Strontium-90		0.159		0.115	pCi/g	32*		(0% - 20%)	AAK	02/04/05 04:23
	Uncert:	+/-0.0317		+/-0.0243						
	TPU:	+/-0.0543		+/-0.0364						
QC1200778844 LCS										
Strontium-90	3.53			3.41	pCi/g		96	(75%-125%)		02/03/05 00:37
	Uncert:			+/-0.168						
	TPU:			+/-0.692						
QC1200778841 MB										
Strontium-90			U	-0.0135	pCi/g					02/04/05 04:23
	Uncert:			+/-0.0128						
	TPU:			+/-0.0129						
QC1200778843 129519003 MS										
Strontium-90	15.0	0.159		14.4	pCi/g		95	(75%-125%)		02/03/05 00:37
	Uncert:	+/-0.0317		+/-0.747						
	TPU:	+/-0.0543		+/-3.08						
Batch 397382										
QC1200778846 129519004 DUP										
Iron-55		230		235	pCi/g	2		(0% - 20%)	AAK	02/04/05 11:26
	Uncert:	+/-6.10		+/-6.47						
	TPU:	+/-11.2		+/-11.6						
QC1200778848 LCS										
Iron-55	315			314	pCi/g		100	(75%-125%)		02/04/05 12:29
	Uncert:			+/-12.3						
	TPU:			+/-18.6						
QC1200778845 MB										
Iron-55			U	-2.3	pCi/g					02/04/05 10:17
	Uncert:			+/-4.05						
	TPU:			+/-4.05						
QC1200778847 129519004 MS										
Iron-55	741	230		936	pCi/g		95	(75%-125%)		02/04/05 11:58
	Uncert:	+/-6.10		+/-22.9						
	TPU:	+/-11.2		+/-47.2						
Batch 397383										
QC1200778850 129519004 DUP										
Nickel-63	U	0.756	U	1.46	pCi/g	0		(0% - 100%)	AAK	02/04/05 01:49
	Uncert:	+/-1.12		+/-0.948						
	TPU:	+/-1.12		+/-0.950						
QC1200778852 LCS										
Nickel-63	94.6			94.3	pCi/g		100	(75%-125%)		02/04/05 03:55
	Uncert:			+/-3.72						
	TPU:			+/-4.95						
QC1200778849 MB										
Nickel-63			U	-0.171	pCi/g					02/04/05 00:17
	Uncert:			+/-0.994						
	TPU:			+/-0.994						
QC1200778851 129519004 MS										
Nickel-63	218 U	0.756		174	pCi/g		79	(75%-125%)		02/04/05 03:21
	Uncert:	+/-1.12		+/-4.07						

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397383										
	TPU:	+/-1.12		+/-7.26						
Batch 397385										
QC1200778858 129519002 DUP										
Tritium		3340		2960	pCi/g	12		(0% - 20%)	NXL1	02/02/05 03:34
	Uncert:	+/-65.9		+/-58.4						
	TPU:	+/-233		+/-204						
QC1200778860 LCS										
Tritium	40.1			35.9	pCi/g		89	(75%-125%)		02/02/05 04:19
	Uncert:			+/-4.86						
	TPU:			+/-5.40						
QC1200778857 MB										
Tritium			U	1.40	pCi/g					02/02/05 03:24
	Uncert:			+/-3.67						
	TPU:			+/-3.67						
QC1200778859 129519002 MS										
Tritium	80.5	3340		4160	pCi/g		1020*	(75%-125%)		02/02/05 03:47
	Uncert:	+/-65.9		+/-82.3						
	TPU:	+/-233		+/-289						
Batch 397386										
QC1200778862 129519002 DUP										
Carbon-14		2.35		2.39	pCi/g	1		(0% - 100%)	NXL1	02/02/05 18:02
	Uncert:	+/-0.376		+/-0.373						
	TPU:	+/-0.378		+/-0.375						
QC1200778864 LCS										
Carbon-14	23.3			26.8	pCi/g		115	(75%-125%)		02/02/05 20:06
	Uncert:			+/-0.745						
	TPU:			+/-0.859						
QC1200778861 MB										
Carbon-14			U	0.0425	pCi/g					02/02/05 17:01
	Uncert:			+/-0.315						
	TPU:			+/-0.315						
QC1200778863 129519002 MS										
Carbon-14	53.0	2.35		62.6	pCi/g		114	(75%-125%)		02/02/05 19:04
	Uncert:	+/-0.376		+/-1.72						
	TPU:	+/-0.378		+/-2.04						
Batch 399566										
QC1200784197 129519002 DUP										
Technetium-99	U	0.269	U	0.0245	pCi/g	0		(0% - 100%)	NXL1	02/12/05 21:53
	Uncert:	+/-0.435		+/-0.353						
	TPU:	+/-0.435		+/-0.353						
QC1200784199 LCS										
Technetium-99	32.4			32.5	pCi/g		101	(75%-125%)		02/13/05 00:24
	Uncert:			+/-0.692						
	TPU:			+/-1.02						
QC1200784196 MB										
Technetium-99			U	0.153	pCi/g					02/12/05 19:48
	Uncert:			+/-0.170						
	TPU:			+/-0.170						
QC1200784198 129519002 MS										

QC Summary

Workorder: 129519

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 399566										
Technetium-99	73.8 U	0.269		74.6	pCi/g		101	(75%-125%)		
	Uncert:	+/-0.435		+/-1.69						
	TPU:	+/-0.435		+/-2.44						
Batch 399836										
QC1200784853 129519001 DUP										
Iron-55		9550		11100	pCi/g	15		(0% - 20%)	AAK	02/10/05 03:17
	Uncert:	+/-191		+/-286						
	TPU:	+/-473		+/-662						
QC1200784855 LCS										
Iron-55	4730			4060	pCi/g		86	(75%-125%)		02/08/05 18:41
	Uncert:			+/-156						
	TPU:			+/-245						
QC1200784852 MB										
Iron-55			U	-7.5	pCi/g					02/08/05 16:39
	Uncert:			+/-42.2						
	TPU:			+/-42.2						
QC1200784854 129519001 MS										
Iron-55	4730	9550		13000	pCi/g		75	(75%-125%)		02/10/05 03:50
	Uncert:	+/-191		+/-297						
	TPU:	+/-473		+/-764						
Batch 399858										
QC1200784948 129519002 DUP										
Plutonium-241	U	0.359	U	-0.329	pCi/g	N/A		(0% - 100%)	RDD	02/10/05 02:01
	Uncert:	+/-1.78		+/-1.54						
	TPU:	+/-1.78		+/-1.54						
QC1200784950 LCS										
Plutonium-241	66.4			56.2	pCi/g		85	(75%-125%)		02/10/05 04:55
	Uncert:			+/-3.80						
	TPU:			+/-7.26						
QC1200784947 MB										
Plutonium-241			U	-0.435	pCi/g					02/09/05 23:57
	Uncert:			+/-1.57						
	TPU:			+/-1.57						
QC1200784949 129519002 MS										
Plutonium-241	148 U	0.359		120	pCi/g		81	(75%-125%)		02/10/05 04:05
	Uncert:	+/-1.78		+/-4.89						
	TPU:	+/-1.78		+/-13.2						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.

QC Summary

Workorder: **129519**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

J	Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U	Indicates the target analyte was analyzed for but not detected above the detection limit.
UI	Uncertain identification for gamma spectroscopy.
X	Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h	Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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GENERAL NARRATIVE

CASE NARRATIVE
FOR
CONNECTICUT YANKEE
RE: Soil and Concrete
PO# 002337
Work Order: 128122

January 17, 2004

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 29,2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures except in items of note located below.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
128122001	3002-0000-189-C-Liner
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
128122004	3002-0000-189-C-1C-03
128122005	3002-0000-189-C-2C-01
128122006	3002-0000-189-C-2C-01-RB
128122007	3002-0000-189-C-2C-02
128122008	3002-0000-189-C-2C-03
128122009	3002-0000-189-C-2C-04
128122010	3002-0000-189-C-2C-05
128122011	3002-0000-189-C-3C-01
128122012	3002-0000-189-C-3C-02
128122013	3002-0000-189-C-3C-03
128122014	3002-0000-189-C-3C-04

128122015	3002-0000-189-C-3C-05
128122016	3002-0000-189-C-3C-06

Items of Note:

After two attempts to leach the activity from the surface of the sample, it was determined that the sample's activity was integral to the sample matrix. Based on the assumption that the sample matrix was uniformly activated, a small portion of the sample was dissolved for analytical preparation. For sample 3002-0000-189-C-Liner there is no H_3 or C_{14} reported. For sample 3002-0000-189-C-2C-01-RB, there is no H_3 reported.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One solid sample was analyzed for CHALL. (except H-3 and C14)
Two concrete samples were analyzed for CHALL.
Twelve concrete samples were analyzed for CHGAM, H-3, Ni-63, & Fe-55.
One solid sample was analyzed for CHGAM, Ni-63, and Fe-55.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-00308

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 Att: Sarah Kozlik

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:
TRK 7908 7219 1360

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55	CHALL		Comment, Preservation	Lab Sample ID
3002-0000-189-C-Liner	12/15/04	1600	SS	CR	BP					X		2"	
3002-0000-189-C-1C-01	12/15/04	1610	CT	CR	BP					X		2"	
3002-0000-189-C-1C-02	12/15/04	1610	CT	CR	BP					X		2"	
3002-0000-189-C-1C-03	12/15/04	1610	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-2C-01*	12/15/04	1645	CT	CR	BP	X	X	X	X			2", also contains rebar	
3002-0000-189-C-2C-02	12/15/04	1645	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-2C-03	12/15/04	1645	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-2C-04	12/15/04	1645	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-2C-05	12/15/04	1645	CT	CR	BP	X	X	X	X			1.5"	

NOTES: PO #: 002337 MSR #: 04-4152 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003
* Remove concrete from rebar and analyze concrete and rebar separately.
Label rebar analysis as sample #3002-0000-189-C-2C-01-RB

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18.0 Deg. C

Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: D. Johnson 12-28-04 Date/Time: 0900	2) Received By: M. Mitchell 12-29-04 Date/Time: 930
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-00309

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:
TRK 7908 7219 1360

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55			Comment, Preservation	Lab Sample ID
3002-0000-189-C-3C-01	12/15/04	1705	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-3C-02	12/15/04	1705	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-3C-03	12/15/04	1705	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-3C-04	12/15/04	1705	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-3C-05	12/15/04	1705	CT	CR	BP	X	X	X	X			2"	
3002-0000-189-C-3C-06	12/15/04	1705	CT	CR	BP	X	X	X	X			0.5"	

NOTES: PO #: 002337 MSR #: 04-4152 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 180 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: D. Johnson Date/Time: 12/28/04 0900	2) Received By: M. Mitchell Date/Time: 12-29-04 930
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12-29-04 930

SDG#: MSR#04-4152

Work Order Number: 1281221

Shipping Container ID: 7908 7219 1340 Chain of Custody # DO-2004-00308, 309

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 18.0°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 15
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: M. Mitchell Date: 12-29-04 930

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 128122
Date Received: 12-29-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: MM	12/29/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADIOLOGICAL	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	400 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 12/29/04 Date:

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-4152

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	390931
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
1200763585	Method Blank (MB)
1200763586	128121019(5000-0000-SB-3-07) Sample Duplicate (DUP)
1200763587	128121019(5000-0000-SB-3-07) Matrix Spike (MS)
1200763588	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128121019 (5000-0000-SB-3-07).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid ALL FSS**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392219
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
1200766821	Method Blank (MB)
1200766822	127994001(3002-0000-187-Liner) Sample Duplicate (DUP)
1200766823	127994001(3002-0000-187-Liner) Matrix Spike (MS)
1200766824	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 127994001 (3002-0000-187-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Samples 1200766822 (3002-0000-187-Liner) did not meet the concrete detection limit due to the matrix of the sample being a metal.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	390932
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
1200763589	Method Blank (MB)
1200763590	128121019(5000-0000-SB-3-07) Sample Duplicate (DUP)
1200763591	128121019(5000-0000-SB-3-07) Matrix Spike (MS)
1200763592	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128121019 (5000-0000-SB-3-07).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	390933
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01

128122003	3002-0000-189-C-1C-02
1200763593	Method Blank (MB)
1200763594	128121019(5000-0000-SB-3-07) Sample Duplicate (DUP)
1200763595	128121019(5000-0000-SB-3-07) Matrix Spike (MS)
1200763596	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128121019 (5000-0000-SB-3-07).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392221
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
1200766832	Method Blank (MB)
1200766833	127994001(3002-0000-187-Liner) Sample Duplicate (DUP)
1200766834	127994001(3002-0000-187-Liner) Matrix Spike (MS)
1200766835	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 127994001 (3002-0000-187-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Samples 1200766832 (MB) and 1200766833 (3002-0000-187-Liner) did not meet the concrete detection limit due to the matrix of the sample being a metal.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	394891
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
1200773238	Method Blank (MB)
1200773239	128122001(3002-0000-189-C-Liner) Sample Duplicate (DUP)
1200773240	128122001(3002-0000-189-C-Liner) Matrix Spike (MS)
1200773241	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122001 (3002-0000-189-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200773238 (MB), 1200773239 (3002-0000-189-C-Liner), 1200773240 (3002-0000-189-C-Liner), 1200773241 (LCS), and 128122001 (3002-0000-189-C-Liner) were reprepped due to low/high carrier/tracer yield.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-FSS GAM & ALL FSS**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	391590
Prep Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
128122004	3002-0000-189-C-1C-03
128122005	3002-0000-189-C-2C-01
128122007	3002-0000-189-C-2C-02
128122008	3002-0000-189-C-2C-03
128122009	3002-0000-189-C-2C-04
128122010	3002-0000-189-C-2C-05
128122011	3002-0000-189-C-3C-01
128122012	3002-0000-189-C-3C-02
128122013	3002-0000-189-C-3C-03
128122014	3002-0000-189-C-3C-04
128122015	3002-0000-189-C-3C-05
128122016	3002-0000-189-C-3C-06
1200765183	Method Blank (MB)
1200765184	128122002(3002-0000-189-C-1C-01) Sample Duplicate (DUP)
1200765185	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering

Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122002 (3002-0000-189-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 128122004 (3002-0000-189-C-1C-03) was extended due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 172790 was generated due to RDL less than MDA. 1. Sample 128122007 MDA is greater than the required detection limit due to high activity. 1. Reporting results.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Actinium-228	128122008
			128122009
		Bismuth-212	128122003
		Bismuth-214	128122008
		Cesium-134	128122012
			128122016
		Europium-154	128122016
		Lead-212	1200765183

			128122008
		Lead-214	128122004
			128122005
		Thallium-208	128122004
UI	Data rejected due to no valid peak.	Bismuth-212	128122015
		Manganese-54	128122009

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-FSS GAM & ALL FSS**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	393211
Prep Batch Number:	391391

Sample ID	**Client ID**
128122001	3002-0000-189-C-Liner
128122006	3002-0000-189-C-2C-01-RB
1200769291	Method Blank (MB)
1200769292	127994001(3002-0000-187-Liner) Sample Duplicate (DUP)
1200769293	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 127994001 (3002-0000-187-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200769293 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 174227 was generated due to RDL less than MDA, Method Blank contamination and Failed RPD for DUP. 1. RDL less than MDA: 128122 006 See attached "Failed RDL Report" The required detection limit could not be achieved due to high sample radioactivity. 1. Reporting results.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Bismuth-214	128122006
		Europium-154	128122006
		Radium-226	128122006
UI	Data rejected due to no valid peak.	Lead-212	1200769291

Method/Analysis Information

Product:	**GFPC, Sr90, solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	391514
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
1200764956	Method Blank (MB)
1200764957	128122002(3002-0000-189-C-1C-01) Sample Duplicate (DUP)
1200764958	128122002(3002-0000-189-C-1C-01) Matrix Spike (MS)
1200764959	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122002 (3002-0000-189-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200764958 (3002-0000-189-C-1C-01) was recounted due to low/high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
Samples 1200764957 (3002-0000-189-C-1C-01), 128122002 (3002-0000-189-C-1C-01), and 128122003 (3002-0000-189-C-1C-02) were verified by recounting at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, solid-ALL FSS**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392498
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
1200767447	Method Blank (MB)
1200767448	127994001(3002-0000-187-Liner) Sample Duplicate (DUP)
1200767449	127994001(3002-0000-187-Liner) Matrix Spike (MS)
1200767450	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering

Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 127994001 (3002-0000-187-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
Samples 1200767448 (3002-0000-187-Liner) and 128122001 (3002-0000-189-C-Liner) were verified by recounting at least five days from the separation date.
The blank, 1200767447 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Prep Method:	GL-RAD-A-026
Analytical Batch Number:	391077
Prep Batch Number:	391468

Sample ID	**Client ID**
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
1200763982	Method Blank (MB)
1200763983	128122003(3002-0000-189-C-1C-02) Sample Duplicate (DUP)
1200763984	128122003(3002-0000-189-C-1C-02) Matrix Spike (MS)
1200763985	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122003 (3002-0000-189-C-1C-02).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
Blank result for sample 1200763982 (MB) is above critical level but less than MDA. All results are less than MDA and significantly less than the detection limit. Reporting results.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	***Liquid Scint Tc99, Solid-ALL FSS***
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	393090

Sample ID	**Client ID**
128122001	3002-0000-189-C-Liner
1200768958	Method Blank (MB)
1200768959	128173001(CN 149A) Sample Duplicate (DUP)
1200768960	128173001(CN 149A) Matrix Spike (MS)
1200768961	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128173001 (CN 149A).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-ALL FSS**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	391875
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
128122004	3002-0000-189-C-1C-03
128122005	3002-0000-189-C-2C-01
128122007	3002-0000-189-C-2C-02
128122008	3002-0000-189-C-2C-03
128122009	3002-0000-189-C-2C-04
128122010	3002-0000-189-C-2C-05
128122011	3002-0000-189-C-3C-01
128122012	3002-0000-189-C-3C-02
128122013	3002-0000-189-C-3C-03
128122014	3002-0000-189-C-3C-04
128122015	3002-0000-189-C-3C-05
128122016	3002-0000-189-C-3C-06
1200765959	Method Blank (MB)
1200765960	128121019(5000-0000-SB-3-07) Sample Duplicate (DUP)
1200765961	128121019(5000-0000-SB-3-07) Matrix Spike (MS)
1200765962	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128121019 (5000-0000-SB-3-07).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200765960 (5000-0000-SB-3-07), 128122002 (3002-0000-189-C-1C-01), 128122003 (3002-0000-189-C-1C-02), 128122004 (3002-0000-189-C-1C-03), 128122005 (3002-0000-189-C-2C-01), 128122007 (3002-0000-189-C-2C-02), 128122010 (3002-0000-189-C-2C-05), and 128122013 (3002-0000-189-C-3C-03) were recounted due to activity above the critical level. For samples 128122010 (3002-0000-189-C-2C-05) and 128122013 (3002-0000-189-C-3C-03), the second counts are being reported.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-ALL FSS**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	395047
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
128122006	3002-0000-189-C-2C-01-RB
1200773521	Method Blank (MB)
1200773522	128122001(3002-0000-189-C-Liner) Sample Duplicate (DUP)
1200773523	128122001(3002-0000-189-C-Liner) Matrix Spike (MS)
1200773524	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122001 (3002-0000-189-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200773521 (MB) was recounted due to a suspected blank false positive.
The batch was reprepped, with less sample, due to a high relative percent difference and a high matrix spike recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
The blank result, 1200773521 (MB), is less than five percent of the lowest sample activity.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information
Product: **Liquid Scint Ni63, Solid-ALL FSS**

Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	391882
Prep Batch Number:	391470
Dry Soil Prep GL-RAD-A-021 Batch Number:	391469

Sample ID	**Client ID**
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
128122004	3002-0000-189-C-1C-03
128122005	3002-0000-189-C-2C-01
128122007	3002-0000-189-C-2C-02
128122008	3002-0000-189-C-2C-03
128122009	3002-0000-189-C-2C-04
128122010	3002-0000-189-C-2C-05
128122011	3002-0000-189-C-3C-01
128122012	3002-0000-189-C-3C-02
128122013	3002-0000-189-C-3C-03
128122014	3002-0000-189-C-3C-04
128122015	3002-0000-189-C-3C-05
128122016	3002-0000-189-C-3C-06
1200765980	Method Blank (MB)
1200765981	128121019(5000-0000-SB-3-07) Sample Duplicate (DUP)
1200765982	128121019(5000-0000-SB-3-07) Matrix Spike (MS)
1200765983	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128121019 (5000-0000-SB-3-07).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 128122002 (3002-0000-189-C-1C-01), 128122003 (3002-0000-189-C-1C-02), and 128122012 (3002-0000-189-C-3C-02) were recounted due to a suspected false positive.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-ALL FSS**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392560
Prep Batch Number:	391395
Dry Soil Prep GL-RAD-A-021 Batch Number:	391391

Sample ID	Client ID
128122001	3002-0000-189-C-Liner
128122006	3002-0000-189-C-2C-01-RB
1200767654	Method Blank (MB)
1200767655	128122001(3002-0000-189-C-Liner) Sample Duplicate (DUP)
1200767656	128122001(3002-0000-189-C-Liner) Matrix Spike (MS)
1200767657	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122001 (3002-0000-189-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL FSS**
Analytical Method:	EPA 906.0 Modified
Prep Method:	GL-RAD-A-026
Analytical Batch Number:	391772
Prep Batch Number:	391468

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
128122004	3002-0000-189-C-1C-03
128122005	3002-0000-189-C-2C-01
128122007	3002-0000-189-C-2C-02
128122008	3002-0000-189-C-2C-03
128122009	3002-0000-189-C-2C-04
128122010	3002-0000-189-C-2C-05
128122011	3002-0000-189-C-3C-01
128122012	3002-0000-189-C-3C-02
128122013	3002-0000-189-C-3C-03
128122014	3002-0000-189-C-3C-04
128122015	3002-0000-189-C-3C-05
128122016	3002-0000-189-C-3C-06
1200765684	Method Blank (MB)
1200765685	128122005(3002-0000-189-C-2C-01) Sample Duplicate (DUP)
1200765686	128122005(3002-0000-189-C-2C-01) Matrix Spike (MS)
1200765687	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128122005 (3002-0000-189-C-2C-01).

QC Information
The Matrix Spike 1200765686 (3002-0000-189-C-2C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA EERF C-01 Modified
Prep Method:	GL-RAD-A-026
Analytical Batch Number:	391776
Prep Batch Number:	391468

Sample ID	Client ID
128122002	3002-0000-189-C-1C-01
128122003	3002-0000-189-C-1C-02
1200765688	Method Blank (MB)
1200765689	128173003(CN 115A) Sample Duplicate (DUP)
1200765690	128173003(CN 115A) Matrix Spike (MS)
1200765691	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128173003 (CN 115A).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Alexander G Chow 11/19/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 172790
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	EML HASL 300, 4.5.2.3	Solid	YANK
Batch ID:	**Sample Numbers:**		
391590	See Below		

Potentially affected work order(s)(SDG): 128122(MSR#04-4152)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 128122007 MDA is greater than the required detection limit due to high activity.	1. Reporting resutlts.

Originator's Name:
Jimmy Hartley 13-JAN-05

Data Validator/Group Leader:
Scott Moreland 14-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

NCR Report No.: 174227
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-JAN-05	Radiochemistry	Specifications	Process
Instrument Type: GAMMA SPECTROMETER	**Test / Method:** EML HASL 300, 4.5.2.3	**Matrix Type:** Solid	**Client Code:** YANK
Batch ID: 393211	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 127994(MSR#04-4130),128122(MSR#04-4152)

Application Issues:

RDL less than MDA

Method Blank contamination

Failed RPD for DUP

Specification and Requirements *Nonconformance Description:*	**NRG Disposition:**
1. RDL less than MDA: 128122 006 See attached "Failed RDL Report" The required detection limit could not be achieved due to high sample radioactivity.	1. Reporting results.

Originator's Name:
michael hilton 19-JAN-05

Data Validator/Group Leader:
Heather Anderson 19-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
393211	127994001	SAMPLE	19-JAN-05	Actinium-228	-0.4202	7.562	0.800
				Americium-241	2.917	5.007	1.00
				Bismuth-212	2.27	14.22	0.500
				Lead-212	1.837	2.154	0.100
				Lead-214	0.5515	2.571	0.100
				Manganese-54	0.9793	2.045	2.00
				Niobium-94	-0.1294	1.435	0.300
				Potassium-40	2.184	13.32	1.00
				Silver-108m	-0.0257	1.239	1.00
				Thallium-208	1.046	1.614	0.080
393211	128122001	SAMPLE	17-JAN-05	Actinium-228	-0.7866	4.906	0.800
				Americium-241	1.383	2.362	0.200
				Bismuth-212	3.785	7.724	0.500
				Bismuth-214	0.3534	1.542	0.200
				Cesium-134	0.4517	1.219	0.180
				Europium-154	0.3339	1.918	0.350
				Lead-212	-0.2956	0.9923	0.100
				Lead-214	0.02651	1.275	0.100
				Manganese-54	-0.09195	1.192	0.650
				Niobium-94	0.1961	0.832	0.250
				Potassium-40	2.791	4.433	1.00
				Radium-226	0.3534	1.542	1.00
				Silver-108m	-0.04128	0.6583	0.280
				Thallium-208	-0.05034	0.834	0.080
393211	128122006	SAMPLE	17-JAN-05	Actinium-228	-0.5145	4.142	0.800
				Americium-241	0.9743	2.174	0.200
				Bismuth-212	0.883	6.845	0.500
				Cesium-134	0.2915	1.064	0.180
				Cesium-137	0.6018	0.8574	0.300
				Lead-212	0.1878	0.9859	0.100
				Lead-214	0.8974	1.255	0.100
				Manganese-54	-0.2575	0.988	0.650
				Niobium-94	0.1446	0.7507	0.250
				Potassium-40	3.477	5.96	1.00
				Silver-108m	0.02473	0.5871	0.280
				Thallium-208	-0.09033	0.7694	0.080
393211	1200769291	MB	17-JAN-05	Actinium-228	0.429	0.9537	0.800
				Barium-133	0.00594	0.194	0.100
				Bismuth-212	0.5502	1.729	0.500
				Bismuth-214	0.3201	0.4669	0.200
				Lead-214	0.1297	0.3232	0.100
				Potassium-40	1.662	2.781	1.00
				Thallium-208	0.02044	0.1975	0.080
393211	1200769292	DUP	18-JAN-05	Actinium-228	3.986	10.96	0.800
				Americium-241	-0.3085	1.615	1.00
				Bismuth-212	3.232	17.75	0.500
				Bismuth-214	1.729	3.757	0.200
				Lead-212	0.6859	1.919	0.100

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
393211	1200769292	DUP	18-JAN-05	Lead-214	0.06176	2.834	0.100
				Manganese-54	-0.2351	2.561	2.00
				Niobium-94	0.4742	2.009	0.300
				Potassium-40	9.697	17.63	1.00
				Radium-226	1.729	3.757	1.00
				Silver-108m	0.6967	1.518	1.00
				Thallium-208	0.7154	2.042	0.080
393211	1200769293	LCS	19-JAN-05	Actinium-228	1.425	3.869	0.800
				Barium-133	-0.2741	0.6577	0.100
				Bismuth-212	0.9363	5.678	0.500
				Bismuth-214	0.00023	1.37	0.200
				Lead-212	0.2032	0.9342	0.100
				Lead-214	0.1152	1.123	0.100
				Niobium-94	-0.1101	0.6273	0.300
				Potassium-40	-0.5802	7.2	1.00
				Radium-226	0.00023	1.37	1.00
				Thallium-208	-0.0572	0.628	0.080

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-Liner	Project:	YANK01304
Sample ID:	128122001	Client ID:	YANK001
Matrix:	SS	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	~~888888%~~ HGA 1/19/05 NA		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Alpha Spec Analysis											
Alphaspec Am241, Cm, Solid ALL FSS											
Americium-241		0.729	+/-0.442	0.0772	+/-0.455	0.338	pCi/g		BJB1 01/15/05	1311	392219 1
Curium-242	U	0.00	+/-0.152	0.00	+/-0.152	0.210	pCi/g				
Curium-243/244	U	0.375	+/-0.329	0.110	+/-0.334	0.403	pCi/g				
Alphaspec Pu, Solid-ALL FSS											
Plutonium-238	U	0.362	+/-0.300	0.136	+/-0.305	0.415	pCi/g		AF1 01/18/05	0838	394891 2
Plutonium-239/240	U	0.0298	+/-0.160	0.149	+/-0.160	0.441	pCi/g				
Liquid Scint Pu241, Solid-ALL FSS											
Plutonium-241	U	9.86	+/-8.19	6.73	+/-8.26	13.7	pCi/g		BJB1 01/17/05	2244	392221 4
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS											
Actinium-228	U	-0.787	+/-3.15	2.44	+/-3.09	4.91	pCi/g		MJH1 01/17/05	1029	393211 5
Americium-241	U	1.38	+/-1.65	1.17	+/-1.62	2.36	pCi/g				
Barium-133		4.36	+/-0.895	0.396	+/-0.877	0.798	pCi/g				
Bismuth-212	U	3.79	+/-4.89	3.84	+/-4.79	7.72	pCi/g				
Bismuth-214	U	0.353	+/-0.972	0.766	+/-0.952	1.54	pCi/g				
Cesium-134	U	0.452	+/-0.775	0.606	+/-0.759	1.22	pCi/g				
Cesium-137		38.9	+/-3.58	0.452	+/-3.51	0.911	pCi/g				
Cobalt-60		760	+/-45.1	0.310	+/-44.2	0.629	pCi/g				
Europium-152		2.42	+/-1.63	0.884	+/-1.59	1.78	pCi/g				
Europium-154	U	0.334	+/-1.18	0.946	+/-1.15	1.92	pCi/g				
Europium-155	U	0.561	+/-1.07	0.764	+/-1.05	1.54	pCi/g				
Lead-212	U	-0.296	+/-0.652	0.494	+/-0.639	0.992	pCi/g				
Lead-214	U	0.0265	+/-0.956	0.634	+/-0.937	1.28	pCi/g				
Manganese-54	U	-0.092	+/-0.762	0.593	+/-0.746	1.19	pCi/g				
Niobium-94	U	0.196	+/-0.526	0.413	+/-0.516	0.832	pCi/g				
Potassium-40	U	2.79	+/-2.64	2.17	+/-2.59	4.43	pCi/g				
Radium-226	U	0.353	+/-0.972	0.766	+/-0.952	1.54	pCi/g				
Silver-108m	U	-0.0413	+/-0.436	0.327	+/-0.427	0.658	pCi/g				
Thallium-208	U	-0.0503	+/-0.526	0.414	+/-0.516	0.834	pCi/g				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid-ALL FSS											
Strontium-90		0.565	+/-0.109	0.0757	+/-0.170	0.156	pCi/g		JMB1 01/14/05	2044	392498 6
Rad Liquid Scintillation Analysis											
Liquid Scint Fe55, Solid-ALL FSS											
Iron-55		10000	+/-111	52.6	+/-387	106	pCi/g		DAJ1 01/19/05	0951	395047 7

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-Liner
Sample ID: 128122001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63		85.8	+/-4.42	2.61	+/-5.28	5.29	pCi/g		DAJ1 01/15/05	0911	392560	9
Liquid Scint Tc99, Solid-ALL FSS												
Technetium-99	U	1.12	+/-0.816	0.670	+/-0.816	1.36	pCi/g		EGD1 01/17/05	1238	393090	10
Solid Preparation												
Percent Leach												

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	DOE RESL Fe-1, Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	Client Requested Procedure

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	87	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	95	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	86	
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	99	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	61	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	80	

Notes:
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Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-Liner
Sample ID: 128122001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-1C-01	Project:	YANK01304
Sample ID:	128122002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	8.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Alpha Spec Analysis											
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)											
Americium-241	U	0.0163	+/-0.0229	0.0145	+/-0.023	0.0405	pCi/g		BJB1 01/10/05	1959	390931 1
Curium-242	U	0.00476	+/-0.00934	0.00	+/-0.00935	0.0129	pCi/g				
Curium-243/244	U	0.00783	+/-0.0197	0.0146	+/-0.0197	0.0406	pCi/g				
Alphaspec Pu, Solid-TRU2,ALL2 (CT)											
Plutonium-238	U	0.00262	+/-0.0199	0.0185	+/-0.0199	0.0623	pCi/g		BJB1 01/07/05	1604	390932 2
Plutonium-239/240	U	0.00973	+/-0.0274	0.0213	+/-0.0274	0.068	pCi/g				
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)											
Plutonium-241	U	0.645	+/-2.03	1.69	+/-2.04	3.46	pCi/g		BJB1 01/11/05	0711	390933 3
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228	U	0.447	+/-2.05	1.71	+/-2.01	3.43	pCi/g		AKB 01/10/05	0700	391590 4
Americium-241	U	-0.96	+/-1.19	1.11	+/-1.17	2.22	pCi/g				
Bismuth-212	U	5.76	+/-4.30	3.22	+/-4.21	6.46	pCi/g				
Bismuth-214	U	0.350	+/-0.876	0.667	+/-0.858	1.34	pCi/g				
Cesium-134		5.01	+/-1.02	0.478	+/-0.995	0.960	pCi/g				
Cesium-137	U	-0.589	+/-0.460	0.390	+/-0.451	0.783	pCi/g				
Cobalt-60		483	+/-29.0	0.236	+/-28.4	0.479	pCi/g				
Europium-152		727	+/-48.4	0.834	+/-47.4	1.67	pCi/g				
Europium-154		65.8	+/-6.59	1.62	+/-6.46	3.25	pCi/g				
Europium-155	U	1.12	+/-1.14	0.997	+/-1.12	2.00	pCi/g				
Lead-212	U	0.793	+/-0.677	0.468	+/-0.664	0.939	pCi/g				
Lead-214		1.41	+/-0.907	0.571	+/-0.888	1.15	pCi/g				
Manganese-54	U	-0.237	+/-0.534	0.447	+/-0.523	0.897	pCi/g				
Niobium-94	U	0.378	+/-0.413	0.353	+/-0.404	0.708	pCi/g				
Potassium-40		7.23	+/-3.95	1.63	+/-3.87	3.32	pCi/g				
Radium-226	U	0.350	+/-0.876	0.667	+/-0.858	1.34	pCi/g				
Silver-108m	U	0.0412	+/-0.351	0.290	+/-0.344	0.581	pCi/g				
Thallium-208		0.770	+/-0.621	0.367	+/-0.608	0.737	pCi/g				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid-HTD2,ALL2 (CT)											
Strontium-90		0.0273	+/-0.0107	0.00817	+/-0.0132	0.0169	pCi/g		JMB1 01/11/05	0502	391514 5
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		2040	+/-23.8	1.23	+/-245	2.45	pCi/g		DAJ1 01/04/05	2003	391772 6
Liquid Scint C14, Solid-HTD2,ALL2 (CT)											

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-1C-01
Sample ID: 128122002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint C14, Solid-HTD2,ALL2 (CT)												
Carbon-14		1.54	+/-0.359	0.219	+/-0.359	0.466	pCi/g		LAG1 01/06/05	0603	391776	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)												
Iron-55		533	+/-5.18	1.44	+/-22.1	2.90	pCi/g		DAJ1 01/08/05	2248	391875	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)												
Nickel-63		3.37	+/-0.806	0.601	+/-0.814	1.23	pCi/g		DAJ1 01/10/05	2230	391882	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)												
Technetium-99	U	0.417	+/-0.349	0.281	+/-0.349	0.578	pCi/g		EGD1 01/09/05	1427	391077	10
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0840	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1735	391469
GL-RAD-A-026	Laboratory sample composite				391468

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	87	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	102	(15%-125%)

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-1C-01
Sample ID: 128122002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			93						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 (C			81		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,AI			59						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,AI			64						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,AI			82						

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Reviewed by

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-1C-02	Project:	YANK01304
Sample ID:	128122003	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	8.33%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.0193	+/-0.022	0.0118	+/-0.0221	0.035	pCi/g		BJB1	01/10/05	1959	390931	1
Curium-242	U	0.00607	+/-0.0147	0.00936	+/-0.0148	0.0315	pCi/g						
Curium-243/244	U	0.00593	+/-0.0229	0.0187	+/-0.0229	0.0488	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00531	+/-0.0229	0.0178	+/-0.0229	0.0656	pCi/g		BJB1	01/07/05	1604	390932	2
Plutonium-239/240	U	0.00309	+/-0.0235	0.0218	+/-0.0235	0.0736	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.681	+/-2.15	1.79	+/-2.15	3.66	pCi/g		BJB1	01/11/05	0813	390933	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228	U	0.168	+/-1.83	1.58	+/-1.79	3.16	pCi/g		AKB	01/10/05	0701	391590	4
Americium-241	U	-1.04	+/-2.00	1.80	+/-1.96	3.62	pCi/g						
Bismuth-212	U	0.00	+/-4.48	3.17	+/-4.39	6.37	pCi/g						
	UI												
Bismuth-214	U	0.279	+/-0.872	0.643	+/-0.855	1.29	pCi/g						
Cesium-134		2.07	+/-0.836	0.441	+/-0.820	0.887	pCi/g						
Cesium-137	U	0.0402	+/-0.511	0.373	+/-0.501	0.750	pCi/g						
Cobalt-60		322	+/-22.0	0.255	+/-21.5	0.515	pCi/g						
Europium-152		528	+/-37.0	0.883	+/-36.2	1.77	pCi/g						
Europium-154		43.7	+/-4.88	1.32	+/-4.78	2.65	pCi/g						
Europium-155	U	-0.829	+/-1.25	1.10	+/-1.23	2.20	pCi/g						
Lead-212	U	-0.0466	+/-0.549	0.493	+/-0.538	0.990	pCi/g						
Lead-214	U	-15.6	+/-1.54	0.600	+/-1.51	1.21	pCi/g						
Manganese-54	U	-0.149	+/-0.481	0.416	+/-0.471	0.835	pCi/g						
Niobium-94	U	0.425	+/-0.396	0.330	+/-0.388	0.664	pCi/g						
Potassium-40		8.95	+/-2.99	1.54	+/-2.93	3.14	pCi/g						
Radium-226	U	0.279	+/-0.872	0.643	+/-0.855	1.29	pCi/g						
Silver-108m	U	0.237	+/-0.453	0.288	+/-0.444	0.579	pCi/g						
Thallium-208	U	0.351	+/-0.395	0.362	+/-0.387	0.726	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		0.0159	+/-0.00771	0.00582	+/-0.00884	0.0121	pCi/g		JMB1	01/11/05	0501	391514	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		2490	+/-25.9	1.20	+/-292	2.40	pCi/g		DAJ1	01/04/05	2034	391772	6

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-1C-02
Sample ID: 128122003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
Liquid Scint C14, Solid-HTD2,ALL2 (CT)												
Carbon-14		0.999	+/-0.296	0.193	+/-0.296	0.411	pCi/g		LAG1 01/06/05	0635	391776	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)												
Iron-55		468	+/-5.41	1.61	+/-20.3	3.26	pCi/g		DAJ1 01/09/05	0005	391875	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)												
Nickel-63		2.72	+/-0.890	0.685	+/-0.895	1.40	pCi/g		DAJ1 01/10/05	2316	391882	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)												
Technetium-99	U	0.459	+/-0.340	0.272	+/-0.340	0.560	pCi/g		EGD1 01/09/05	1459	391077	10
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0840	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1735	391469
GL-RAD-A-026	Laboratory sample composite				391468

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRU	81	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	97	(15%-125%)

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Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-1C-02
Sample ID: 128122003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,A			87						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 (C			85		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,AI			46						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,AI			63						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,AI			84						

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- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-1C-03	Project:	YANK01304
Sample ID:	128122004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.94%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228	U	1.45	+/-1.14	0.810	+/-1.12	1.63	pCi/g		AKB	01/10/05	0702	391590	1
Americium-241	U	-0.673	+/-0.527	0.474	+/-0.517	0.950	pCi/g						
Bismuth-212	U	-0.674	+/-2.00	1.47	+/-1.96	2.95	pCi/g						
Bismuth-214		0.660	+/-0.458	0.307	+/-0.449	0.617	pCi/g						
Cesium-134		0.937	+/-0.333	0.223	+/-0.326	0.448	pCi/g						
Cesium-137	U	0.174	+/-0.239	0.179	+/-0.234	0.360	pCi/g						
Cobalt-60		197	+/-12.4	0.111	+/-12.1	0.225	pCi/g						
Europium-152		278	+/-19.4	0.390	+/-19.0	0.783	pCi/g						
Europium-154		21.7	+/-2.31	0.650	+/-2.27	1.31	pCi/g						
Europium-155	U	0.400	+/-0.513	0.450	+/-0.502	0.903	pCi/g						
Lead-212	U	0.389	+/-0.261	0.221	+/-0.256	0.443	pCi/g						
Lead-214	U	0.00	+/-0.387	0.272	+/-0.379	0.546	pCi/g						
	UI												
Manganese-54	U	-0.173	+/-0.249	0.208	+/-0.244	0.418	pCi/g						
Niobium-94	U	0.0112	+/-0.190	0.163	+/-0.186	0.326	pCi/g						
Potassium-40		7.08	+/-1.76	0.699	+/-1.72	1.43	pCi/g						
Radium-226		0.660	+/-0.458	0.307	+/-0.449	0.617	pCi/g						
Silver-108m	U	0.107	+/-0.160	0.135	+/-0.156	0.272	pCi/g						
Thallium-208	U	0.00	+/-0.237	0.180	+/-0.232	0.361	pCi/g						
	UI												
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium		1350	+/-34.2	3.78	+/-167	7.57	pCi/g		DAJ1	01/04/05	2105	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55		307	+/-18.0	10.5	+/-21.7	21.3	pCi/g		DAJ1	01/09/05	0349	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	3.99	+/-8.50	7.03	+/-8.50	14.4	pCi/g		DAJ1	01/07/05	2110	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1735	391469

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-1C-03
Sample ID: 128122004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	67	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-01	Project:	YANK01304
Sample ID:	128122005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.45%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS												
Actinium-228	U	-0.00712	+/-0.819	0.675	+/-0.803	1.36	pCi/g		AKB 01/10/05	0702	391590	1
Americium-241	U	-0.605	+/-0.726	0.618	+/-0.712	1.25	pCi/g					
Bismuth-212	U	1.09	+/-1.69	1.26	+/-1.66	2.55	pCi/g					
Bismuth-214	U	0.039	+/-0.388	0.266	+/-0.381	0.538	pCi/g					
Cesium-134		0.601	+/-0.271	0.184	+/-0.266	0.371	pCi/g					
Cesium-137	U	0.0915	+/-0.179	0.154	+/-0.176	0.311	pCi/g					
Cobalt-60		81.3	+/-5.63	0.102	+/-5.52	0.210	pCi/g					
Europium-152		106	+/-8.27	0.336	+/-8.10	0.679	pCi/g					
Europium-154		8.95	+/-1.17	0.292	+/-1.15	0.598	pCi/g					
Europium-155	U	-0.0537	+/-0.438	0.405	+/-0.430	0.814	pCi/g					
Lead-212	U	0.367	+/-0.284	0.200	+/-0.279	0.404	pCi/g					
Lead-214	U	0.00	+/-0.364	0.239	+/-0.357	0.483	pCi/g					
	UI											
Manganese-54	U	0.0126	+/-0.210	0.175	+/-0.206	0.353	pCi/g					
Niobium-94	U	-0.0698	+/-0.160	0.135	+/-0.157	0.272	pCi/g					
Potassium-40		7.87	+/-1.51	0.557	+/-1.48	1.17	pCi/g					
Radium-226	U	0.039	+/-0.388	0.258	+/-0.381	0.522	pCi/g					
Silver-108m	U	-0.02	+/-0.128	0.113	+/-0.126	0.229	pCi/g					
Thallium-208	U	0.189	+/-0.237	0.149	+/-0.232	0.301	pCi/g					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL FSS												
Tritium		830	+/-26.7	3.72	+/-103	7.44	pCi/g		DAJ1 01/04/05	2136	391772	2
Liquid Scint Fe55, Solid-ALL FSS												
Iron-55		92.6	+/-15.6	10.2	+/-16.1	20.5	pCi/g		DAJ1 01/09/05	0421	391875	3
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63	U	1.07	+/-7.11	5.94	+/-7.11	12.2	pCi/g		DAJ1 01/07/05	2157	391882	4
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1735	391469

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-01
Sample ID: 128122005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	71	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Reviewed by

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-01-RB	Project:	YANK01304
Sample ID:	128122006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	~~888800%~~ HU 1119105 NA		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS												
Actinium-228	U	-0.515	+/-2.64	2.03	+/-2.59	4.14	pCi/g		MJH1 01/17/05	1135	393211	1
Americium-241	U	0.974	+/-1.45	1.07	+/-1.42	2.17	pCi/g					
Bismuth-212	U	0.883	+/-4.25	3.34	+/-4.17	6.85	pCi/g					
Bismuth-214	U	0.00	+/-0.908	0.741	+/-0.890	1.52	pCi/g					
	UI											
Cesium-134	U	0.292	+/-0.660	0.520	+/-0.647	1.06	pCi/g					
Cesium-137	U	0.602	+/-0.519	0.419	+/-0.508	0.857	pCi/g					
Cobalt-60		142	+/-8.38	0.302	+/-8.21	0.637	pCi/g					
Europium-152		26.9	+/-2.79	0.821	+/-2.73	1.68	pCi/g					
Europium-154	U	0.00	+/-1.24	1.07	+/-1.22	2.23	pCi/g					
	UI											
Europium-155	U	0.187	+/-1.04	0.758	+/-1.02	1.54	pCi/g					
Lead-212	U	0.188	+/-0.847	0.485	+/-0.831	0.986	pCi/g					
Lead-214	U	0.897	+/-0.789	0.614	+/-0.773	1.26	pCi/g					
Manganese-54	U	-0.258	+/-0.630	0.483	+/-0.617	0.988	pCi/g					
Niobium-94	U	0.145	+/-0.464	0.367	+/-0.455	0.751	pCi/g					
Potassium-40	U	3.48	+/-3.77	2.82	+/-3.70	5.96	pCi/g					
Radium-226	U	0.00	+/-0.908	0.741	+/-0.890	1.52	pCi/g					
	UI											
Silver-108m	U	0.0247	+/-0.379	0.286	+/-0.371	0.587	pCi/g					
Thallium-208	U	-0.0903	+/-0.479	0.376	+/-0.469	0.769	pCi/g					
Rad Liquid Scintillation Analysis												
Liquid Scint Fe55, Solid-ALL FSS												
Iron-55		2440	+/-90.1	54.2	+/-128	109	pCi/g		DAJ1 01/19/05	1022	395047	2
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63		11.0	+/-4.15	3.31	+/-4.16	6.73	pCi/g		DAJ1 01/15/05	1118	392560	4
Solid Preparation												
Percent Leach												

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Fe-1, Modified

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-01-RB
Sample ID: 128122006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
3	DOE RESL Fe-1, Modified										
4	DOE RESL Ni-1, Modified										
5	Client Requested Procedure										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	45	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-02	Project:	YANK01304
Sample ID:	128122007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.23%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228	U	0.358	+/-0.506	0.427	+/-0.496	0.871	pCi/g		AKB	01/10/05	0703	391590	1
Americium-241	U	-0.00721	+/-0.087	0.0763	+/-0.0852	0.155	pCi/g						
Bismuth-212	U	0.799	+/-1.01	0.759	+/-0.985	1.55	pCi/g						
Bismuth-214	U	0.305	+/-0.258	0.173	+/-0.253	0.353	pCi/g						
Cesium-134	U	0.113	+/-0.134	0.115	+/-0.131	0.235	pCi/g						
Cesium-137	U	0.0705	+/-0.108	0.0936	+/-0.106	0.191	pCi/g						
Cobalt-60		20.8	+/-1.31	0.0563	+/-1.28	0.119	pCi/g						
Europium-152		29.5	+/-2.03	0.193	+/-1.99	0.393	pCi/g						
Europium-154		2.06	+/-0.397	0.301	+/-0.389	0.618	pCi/g						
Europium-155	U	0.161	+/-0.212	0.196	+/-0.208	0.396	pCi/g						
Lead-212		0.375	+/-0.173	0.109	+/-0.169	0.221	pCi/g						
Lead-214		0.452	+/-0.188	0.132	+/-0.185	0.270	pCi/g						
Manganese-54	U	0.0722	+/-0.123	0.105	+/-0.120	0.214	pCi/g						
Niobium-94	U	0.00213	+/-0.0962	0.0821	+/-0.0943	0.168	pCi/g						
Potassium-40		6.48	+/-1.37	0.693	+/-1.34	1.45	pCi/g						
Radium-226	U	0.305	+/-0.258	0.163	+/-0.253	0.333	pCi/g						
Silver-108m	U	0.0324	+/-0.0746	0.0667	+/-0.0731	0.136	pCi/g						
Thallium-208	U	0.178	+/-0.108	0.0962	+/-0.106	0.196	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium		368	+/-18.6	3.92	+/-47.8	7.83	pCi/g		DAJ1	01/04/05	2207	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55		30.2	+/-15.3	10.4	+/-15.4	20.9	pCi/g		DAJ1	01/09/05	0453	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-4.38	+/-7.34	6.27	+/-7.34	12.8	pCi/g		DAJ1	01/07/05	2243	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1735	391469
GL-RAD-A-026	Laboratory sample composite				391468

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-02
Sample ID: 128122007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	85	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	71	

Notes:
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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U, Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-03	Project:	YANK01304
Sample ID:	128122008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.24%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS												
Actinium-228	U	0.00	+/-0.539	0.304	+/-0.528	0.621	pCi/g		AKB 01/10/05	0703	391590	1
	UI											
Americium-241	U	-0.107	+/-0.225	0.210	+/-0.221	0.428	pCi/g					
Bismuth-212	U	0.257	+/-0.697	0.534	+/-0.683	1.09	pCi/g					
Bismuth-214	U	0.00	+/-0.188	0.132	+/-0.184	0.270	pCi/g					
	UI											
Cesium-134	U	0.141	+/-0.0915	0.0818	+/-0.0896	0.168	pCi/g					
Cesium-137	U	-0.0138	+/-0.0753	0.0656	+/-0.0738	0.135	pCi/g					
Cobalt-60		11.6	+/-1.21	0.0517	+/-1.18	0.109	pCi/g					
Europium-152		17.2	+/-1.39	0.162	+/-1.36	0.331	pCi/g					
Europium-154		1.16	+/-0.304	0.215	+/-0.298	0.444	pCi/g					
Europium-155	U	-0.117	+/-0.208	0.187	+/-0.204	0.379	pCi/g					
Lead-212	U	0.00	+/-0.131	0.109	+/-0.129	0.221	pCi/g					
	UI											
Lead-214		0.586	+/-0.202	0.112	+/-0.198	0.229	pCi/g					
Manganese-54	U	0.0549	+/-0.0858	0.0747	+/-0.0841	0.153	pCi/g					
Niobium-94	U	0.0258	+/-0.0684	0.0602	+/-0.067	0.123	pCi/g					
Potassium-40		9.22	+/-1.44	0.297	+/-1.41	0.644	pCi/g					
Radium-226		0.472	+/-0.188	0.113	+/-0.184	0.231	pCi/g					
Silver-108m	U	-0.00739	+/-0.0605	0.0522	+/-0.0593	0.107	pCi/g					
Thallium-208	U	0.0952	+/-0.0822	0.066	+/-0.0806	0.135	pCi/g					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL FSS												
Tritium		216	+/-14.2	3.74	+/-29.3	7.49	pCi/g		DAJ1 01/04/05	2238	391772	2
Liquid Scint Fe55, Solid-ALL FSS												
Iron-55	U	4.37	+/-15.2	10.4	+/-15.2	21.0	pCi/g		DAJ1 01/09/05	0525	391875	3
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63	U	-2.5	+/-7.63	6.46	+/-7.63	13.2	pCi/g		DAJ1 01/07/05	2330	391882	4
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-03
Sample ID: 128122008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021				TC1	01/03/05	1735	391469			
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	74	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-04	Project:	YANK01304
Sample ID:	128122009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	7.25%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS												
Actinium-228	U	0.00	+/-0.320	0.194	+/-0.314	0.400	pCi/g		AKB 01/10/05	0704	391590	1
	UI											
Americium-241	U	-0.0823	+/-0.178	0.167	+/-0.174	0.343	pCi/g					
Bismuth-212	U	0.472	+/-0.410	0.323	+/-0.402	0.669	pCi/g					
Bismuth-214		0.460	+/-0.142	0.066	+/-0.140	0.137	pCi/g					
Cesium-134	U	0.0391	+/-0.0541	0.0467	+/-0.053	0.0968	pCi/g					
Cesium-137	U	0.0186	+/-0.0458	0.0397	+/-0.0449	0.0823	pCi/g					
Cobalt-60		4.54	+/-0.384	0.0265	+/-0.376	0.0577	pCi/g					
Europium-152		6.06	+/-0.520	0.0894	+/-0.510	0.184	pCi/g					
Europium-154		0.466	+/-0.307	0.127	+/-0.301	0.267	pCi/g					
Europium-155	U	-0.125	+/-0.115	0.103	+/-0.113	0.209	pCi/g					
Lead-212		0.410	+/-0.0979	0.0535	+/-0.096	0.110	pCi/g					
Lead-214		0.529	+/-0.122	0.0584	+/-0.119	0.121	pCi/g					
Manganese-54	U	0.00	+/-0.0626	0.0373	+/-0.0614	0.0779	pCi/g					
	UI											
Niobium-94	U	0.0126	+/-0.0383	0.0329	+/-0.0375	0.0684	pCi/g					
Potassium-40		7.45	+/-1.07	0.216	+/-1.05	0.478	pCi/g					
Radium-226		0.460	+/-0.142	0.066	+/-0.140	0.137	pCi/g					
Silver-108m	U	-0.00172	+/-0.0309	0.0274	+/-0.0303	0.0568	pCi/g					
Thallium-208		0.121	+/-0.0516	0.0373	+/-0.0505	0.0772	pCi/g					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL FSS												
Tritium		146	+/-12.1	3.81	+/-21.2	7.61	pCi/g		DAJ1 01/04/05	2309	391772	2
Liquid Scint Fe55, Solid-ALL FSS												
Iron-55	U	8.66	+/-15.3	10.4	+/-15.3	21.1	pCi/g		DAJ1 01/09/05	0557	391875	3
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63	U	2.50	+/-9.12	7.59	+/-9.12	15.6	pCi/g		DAJ1 01/08/05	0017	391882	4
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	1526	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/04/05	0914	391469

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-04
Sample ID: 128122009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	93	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	63	

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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-2C-05	Project:	YANK01304
Sample ID:	128122010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	4.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228		0.557	+/-0.261	0.118	+/-0.256	0.248	pCi/g		AKB	01/10/05	0704	391590	1
Americium-241	U	0.119	+/-0.140	0.0987	+/-0.137	0.204	pCi/g						
Bismuth-212	U	0.164	+/-0.309	0.266	+/-0.303	0.557	pCi/g						
Bismuth-214		0.418	+/-0.131	0.0531	+/-0.129	0.112	pCi/g						
Cesium-134	U	0.0147	+/-0.0435	0.0368	+/-0.0426	0.0773	pCi/g						
Cesium-137	U	0.0251	+/-0.0367	0.0322	+/-0.036	0.0676	pCi/g						
Cobalt-60		2.10	+/-0.203	0.0232	+/-0.199	0.0515	pCi/g						
Europium-152		2.93	+/-0.294	0.0773	+/-0.289	0.161	pCi/g						
Europium-154		0.260	+/-0.129	0.101	+/-0.126	0.215	pCi/g						
Europium-155	U	0.0363	+/-0.0946	0.086	+/-0.0927	0.177	pCi/g						
Lead-212		0.348	+/-0.0851	0.0429	+/-0.0834	0.0887	pCi/g						
Lead-214		0.483	+/-0.114	0.0555	+/-0.111	0.116	pCi/g						
Manganese-54	U	0.0404	+/-0.0416	0.0363	+/-0.0407	0.076	pCi/g						
Niobium-94	U	0.00533	+/-0.0305	0.0258	+/-0.0299	0.0545	pCi/g						
Potassium-40		8.42	+/-1.00	0.133	+/-0.982	0.316	pCi/g						
Radium-226		0.418	+/-0.131	0.0531	+/-0.129	0.112	pCi/g						
Silver-108m	U	-0.00881	+/-0.0268	0.0229	+/-0.0263	0.0483	pCi/g						
Thallium-208		0.121	+/-0.0615	0.0273	+/-0.0603	0.0577	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium		86.1	+/-9.66	3.78	+/-14.1	7.55	pCi/g		DAJ1	01/04/05	2340	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	1.82	+/-16.2	11.2	+/-16.2	22.5	pCi/g		DAJ1	01/10/05	2137	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	1.33	+/-10.7	8.98	+/-10.7	18.4	pCi/g		DAJ1	01/08/05	0103	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1736	391469
GL-RAD-A-026	Laboratory sample composite				391468

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-2C-05
Sample ID: 128122010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	65	

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- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-01	Project:	YANK01304
Sample ID:	128122011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228		0.407	+/-0.250	0.0959	+/-0.245	0.207	pCi/g		AKB	01/10/05	0705	391590	1
Americium-241	U	0.0611	+/-0.186	0.160	+/-0.182	0.334	pCi/g						
Bismuth-212		0.476	+/-0.378	0.221	+/-0.370	0.472	pCi/g						
Bismuth-214		0.414	+/-0.116	0.0456	+/-0.113	0.0974	pCi/g						
Cesium-134	U	0.0269	+/-0.0372	0.0329	+/-0.0365	0.0701	pCi/g						
Cesium-137		0.0563	+/-0.0438	0.025	+/-0.043	0.0536	pCi/g						
Cobalt-60		1.28	+/-0.153	0.0208	+/-0.150	0.0475	pCi/g						
Europium-152		1.60	+/-0.210	0.0628	+/-0.206	0.133	pCi/g						
Europium-154	U	0.088	+/-0.119	0.0947	+/-0.117	0.205	pCi/g						
Europium-155	U	-0.0323	+/-0.0804	0.0713	+/-0.0788	0.149	pCi/g						
Lead-212		0.388	+/-0.0794	0.0384	+/-0.0778	0.0802	pCi/g						
Lead-214		0.402	+/-0.106	0.0471	+/-0.104	0.0994	pCi/g						
Manganese-54	U	-0.0044	+/-0.0332	0.0272	+/-0.0325	0.0584	pCi/g						
Niobium-94	U	0.0146	+/-0.0297	0.026	+/-0.0291	0.0552	pCi/g						
Potassium-40		7.99	+/-1.22	0.179	+/-1.20	0.417	pCi/g						
Radium-226		0.414	+/-0.116	0.0456	+/-0.113	0.0974	pCi/g						
Silver-108m	U	-0.0112	+/-0.025	0.0212	+/-0.0245	0.0452	pCi/g						
Thallium-208		0.123	+/-0.0694	0.0254	+/-0.068	0.0543	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium		39.9	+/-7.29	3.73	+/-8.70	7.46	pCi/g		DAJ1	01/05/05	0011	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	-17.2	+/-15.7	10.9	+/-15.7	22.1	pCi/g		DAJ1	01/09/05	0700	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-7.04	+/-9.50	8.15	+/-9.50	16.7	pCi/g		DAJ1	01/08/05	0150	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1736	391469
GL-RAD-A-026	Laboratory sample composite				391468

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Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-01
Sample ID: 128122011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	65	

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-02	Project:	YANK01304
Sample ID:	128122012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.47%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS											
Actinium-228		0.839	+/-0.209	0.085	+/-0.205	0.188	pCi/g		AKB 01/10/05	0706	391590 1
Americium-241	U	0.0354	+/-0.0436	0.0303	+/-0.0427	0.0634	pCi/g				
Bismuth-212	U	0.188	+/-0.299	0.220	+/-0.293	0.475	pCi/g				
Bismuth-214		0.543	+/-0.118	0.0424	+/-0.115	0.092	pCi/g				
Cesium-134	U UI	0.00	+/-0.0552	0.0378	+/-0.0541	0.0807	pCi/g				
Cesium-137	U	0.025	+/-0.0364	0.0254	+/-0.0356	0.0551	pCi/g				
Cobalt-60		0.558	+/-0.103	0.0268	+/-0.101	0.0604	pCi/g				
Europium-152		0.854	+/-0.137	0.0541	+/-0.134	0.116	pCi/g				
Europium-154	U	0.0866	+/-0.0933	0.0865	+/-0.0914	0.191	pCi/g				
Europium-155	U	0.0116	+/-0.0623	0.0548	+/-0.061	0.115	pCi/g				
Lead-212		0.458	+/-0.0622	0.0299	+/-0.0609	0.0631	pCi/g				
Lead-214		0.491	+/-0.108	0.0396	+/-0.105	0.0846	pCi/g				
Manganese-54	U	0.00112	+/-0.0315	0.0271	+/-0.0309	0.0589	pCi/g				
Niobium-94	U	0.0159	+/-0.0269	0.0247	+/-0.0264	0.0532	pCi/g				
Potassium-40		7.28	+/-0.962	0.204	+/-0.943	0.476	pCi/g				
Radium-226		0.543	+/-0.118	0.0424	+/-0.115	0.092	pCi/g				
Silver-108m	U	0.00307	+/-0.0243	0.0209	+/-0.0238	0.0449	pCi/g				
Thallium-208		0.166	+/-0.0446	0.0249	+/-0.0437	0.0537	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL FSS											
Tritium		23.7	+/-6.61	3.98	+/-7.23	7.96	pCi/g		DAJ1 01/05/05	0042	391772 2
Liquid Scint Fe55, Solid-ALL FSS											
Iron-55	U	-5.1	+/-15.6	10.7	+/-15.6	21.7	pCi/g		DAJ1 01/09/05	0732	391875 3
Liquid Scint Ni63, Solid-ALL FSS											
Nickel-63	U	-4.85	+/-9.37	7.98	+/-9.37	16.3	pCi/g		DAJ1 01/11/05	0003	391882 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1736	391469

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-02
Sample ID: 128122012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	88	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	71	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-03	Project:	YANK01304
Sample ID:	128122013	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	7.91%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228		0.435	+/-0.137	0.0523	+/-0.134	0.113	pCi/g		AKB	01/10/05	0707	391590	1
Americium-241	U	-0.00912	+/-0.135	0.0875	+/-0.133	0.182	pCi/g						
Bismuth-212		0.361	+/-0.235	0.127	+/-0.231	0.270	pCi/g						
Bismuth-214		0.417	+/-0.0873	0.0278	+/-0.0856	0.0592	pCi/g						
Cesium-134	U	0.0192	+/-0.0275	0.0192	+/-0.0269	0.0408	pCi/g						
Cesium-137	U	-0.00094	+/-0.018	0.0156	+/-0.0176	0.0332	pCi/g						
Cobalt-60		0.346	+/-0.0519	0.0133	+/-0.0509	0.0298	pCi/g						
Europium-152		0.300	+/-0.0902	0.0475	+/-0.0884	0.0995	pCi/g						
Europium-154	U	0.0257	+/-0.0509	0.0456	+/-0.0499	0.0997	pCi/g						
Europium-155	U	0.0363	+/-0.0573	0.0524	+/-0.0561	0.109	pCi/g						
Lead-212		0.454	+/-0.065	0.0246	+/-0.0637	0.0513	pCi/g						
Lead-214		0.470	+/-0.088	0.0294	+/-0.0862	0.0621	pCi/g						
Manganese-54	U	0.0319	+/-0.0195	0.0149	+/-0.0191	0.0321	pCi/g						
Niobium-94	U	0.00887	+/-0.0163	0.0147	+/-0.016	0.0312	pCi/g						
Potassium-40		7.78	+/-0.849	0.123	+/-0.832	0.277	pCi/g						
Radium-226		0.417	+/-0.0873	0.0278	+/-0.0856	0.0592	pCi/g						
Silver-108m	U	0.00958	+/-0.0154	0.0138	+/-0.0151	0.0292	pCi/g						
Thallium-208		0.160	+/-0.037	0.0155	+/-0.0363	0.0329	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium		9.93	+/-5.35	3.77	+/-5.48	7.55	pCi/g		DAJ1	01/05/05	0113	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	12.7	+/-19.5	13.4	+/-19.5	27.0	pCi/g		DAJ1	01/10/05	2209	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	1.66	+/-7.83	6.53	+/-7.83	13.4	pCi/g		DAJ1	01/09/05	0313	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	1526	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/04/05	0914	391469
GL-RAD-A-026	Laboratory sample composite				391468

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-03
Sample ID: 128122013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	85	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	74	

Notes:
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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-04	Project:	YANK01304
Sample ID:	128122014	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	7.84%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS													
Actinium-228		0.483	+/-0.135	0.050	+/-0.133	0.108	pCi/g		AKB	01/10/05	0707	391590	1
Americium-241	U	0.0453	+/-0.053	0.0519	+/-0.0519	0.108	pCi/g						
Bismuth-212		0.431	+/-0.167	0.103	+/-0.164	0.222	pCi/g						
Bismuth-214		0.394	+/-0.0945	0.026	+/-0.0927	0.0554	pCi/g						
Cesium-134	U	0.0192	+/-0.0193	0.0176	+/-0.0189	0.0375	pCi/g						
Cesium-137	U	0.0167	+/-0.0152	0.0163	+/-0.0149	0.0345	pCi/g						
Cobalt-60		0.123	+/-0.0369	0.0133	+/-0.0362	0.0296	pCi/g						
Europium-152		0.127	+/-0.0643	0.0405	+/-0.063	0.0851	pCi/g						
Europium-154	U	0.0545	+/-0.0342	0.0434	+/-0.0335	0.0948	pCi/g						
Europium-155	U	0.0463	+/-0.0481	0.0455	+/-0.0472	0.0947	pCi/g						
Lead-212		0.478	+/-0.0646	0.0243	+/-0.0633	0.0507	pCi/g						
Lead-214		0.446	+/-0.0799	0.0256	+/-0.0783	0.0543	pCi/g						
Manganese-54	U	-0.0195	+/-0.018	0.0135	+/-0.0177	0.0292	pCi/g						
Niobium-94	U	-0.0121	+/-0.015	0.012	+/-0.0147	0.0257	pCi/g						
Potassium-40		7.60	+/-0.858	0.118	+/-0.841	0.265	pCi/g						
Radium-226		0.394	+/-0.0945	0.026	+/-0.0927	0.0554	pCi/g						
Silver-108m	U	0.00242	+/-0.0149	0.0129	+/-0.0146	0.0273	pCi/g						
Thallium-208		0.162	+/-0.0386	0.0142	+/-0.0378	0.0303	pCi/g						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	6.44	+/-4.95	3.67	+/-5.00	7.35	pCi/g		DAJ1	01/05/05	0219	391772	2
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	12.2	+/-16.3	11.2	+/-16.3	22.6	pCi/g		DAJ1	01/09/05	0836	391875	3
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-3.84	+/-6.83	5.83	+/-6.83	11.9	pCi/g		DAJ1	01/09/05	0400	391882	4
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1736	391469
GL-RAD-A-026	Laboratory sample composite				391468

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-04
Sample ID: 128122014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	75	

Notes:
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- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-05	Project:	YANK01304
Sample ID:	128122015	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	6.84%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS											
Actinium-228		0.326	+/-0.161	0.0712	+/-0.158	0.157	pCi/g		AKB 01/10/05	0823	391590 1
Americium-241	U	-0.0632	+/-0.0917	0.0794	+/-0.0899	0.167	pCi/g				
Bismuth-212	U	0.00	+/-0.275	0.142	+/-0.270	0.311	pCi/g				
	UI										
Bismuth-214		0.351	+/-0.0922	0.0292	+/-0.0904	0.0643	pCi/g				
Cesium-134	U	0.0026	+/-0.0248	0.0189	+/-0.0243	0.0419	pCi/g				
Cesium-137	U	-0.00721	+/-0.0217	0.0182	+/-0.0212	0.0398	pCi/g				
Cobalt-60		0.184	+/-0.049	0.0156	+/-0.048	0.0366	pCi/g				
Europium-152	U	0.0466	+/-0.0591	0.0546	+/-0.0579	0.116	pCi/g				
Europium-154	U	-0.0558	+/-0.0697	0.052	+/-0.0683	0.119	pCi/g				
Europium-155	U	-0.0212	+/-0.0554	0.0524	+/-0.0543	0.110	pCi/g				
Lead-212		0.395	+/-0.0653	0.0291	+/-0.064	0.0612	pCi/g				
Lead-214		0.322	+/-0.0901	0.0358	+/-0.0883	0.0765	pCi/g				
Manganese-54	U	-0.0175	+/-0.0237	0.0182	+/-0.0232	0.0403	pCi/g				
Niobium-94	U	0.0258	+/-0.018	0.018	+/-0.0176	0.0391	pCi/g				
Potassium-40		7.36	+/-0.998	0.173	+/-0.978	0.400	pCi/g				
Radium-226		0.351	+/-0.0922	0.0292	+/-0.0904	0.0643	pCi/g				
Silver-108m	U	0.00408	+/-0.0194	0.0168	+/-0.019	0.0362	pCi/g				
Thallium-208		0.146	+/-0.0446	0.0171	+/-0.0437	0.0374	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL FSS											
Tritium	U	-1.34	+/-4.42	3.82	+/-4.43	7.64	pCi/g		DAJ1 01/05/05	0250	391772 2
Liquid Scint Fe55, Solid-ALL FSS											
Iron-55	U	-12.5	+/-15.9	11.0	+/-15.9	22.2	pCi/g		DAJ1 01/09/05	0907	391875 3
Liquid Scint Ni63, Solid-ALL FSS											
Nickel-63	U	-0.121	+/-8.78	7.37	+/-8.78	15.1	pCi/g		DAJ1 01/09/05	0446	391882 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	1526	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/04/05	0914	391469

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-05
Sample ID: 128122015

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	91	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	72	

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID:	3002-0000-189-C-3C-06	Project:	YANK01304
Sample ID:	128122016	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	29-DEC-04		
Collector:	Client		
Moisture:	5.77%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-FSS GAM & ALL FSS											
Actinium-228		0.369	+/-0.110	0.0391	+/-0.107	0.082	pCi/g		AKB 01/10/05	0925	391590 1
Americium-241	U	0.00376	+/-0.0392	0.0372	+/-0.0385	0.0765	pCi/g				
Bismuth-212		0.375	+/-0.177	0.0833	+/-0.174	0.174	pCi/g				
Bismuth-214		0.463	+/-0.0686	0.0204	+/-0.0672	0.0424	pCi/g				
Cesium-134	U UI	0.00	+/-0.0201	0.0133	+/-0.0197	0.0278	pCi/g				
Cesium-137		0.0472	+/-0.0289	0.0103	+/-0.0284	0.0215	pCi/g				
Cobalt-60		0.480	+/-0.0504	0.00942	+/-0.0493	0.0203	pCi/g				
Europium-152		0.270	+/-0.0566	0.0287	+/-0.0555	0.0595	pCi/g				
Europium-154	U UI	0.00	+/-0.0517	0.035	+/-0.0506	0.074	pCi/g				
Europium-155	U	0.0397	+/-0.0457	0.0315	+/-0.0448	0.0648	pCi/g				
Lead-212		0.420	+/-0.0484	0.0174	+/-0.0474	0.0357	pCi/g				
Lead-214		0.514	+/-0.0732	0.0206	+/-0.0717	0.0427	pCi/g				
Manganese-54	U	-0.00337	+/-0.0135	0.0112	+/-0.0132	0.0234	pCi/g				
Niobium-94	U	0.00682	+/-0.0112	0.00994	+/-0.011	0.0208	pCi/g				
Potassium-40		7.72	+/-0.698	0.0998	+/-0.684	0.214	pCi/g				
Radium-226		0.463	+/-0.0686	0.0204	+/-0.0672	0.0424	pCi/g				
Silver-108m	U	-0.00329	+/-0.0109	0.00913	+/-0.0106	0.019	pCi/g				
Thallium-208		0.152	+/-0.0344	0.00969	+/-0.0338	0.0203	pCi/g				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL FSS											
Tritium	U	0.00	+/-4.46	3.75	+/-4.46	7.49	pCi/g		DAJ1 01/05/05	0321	391772 2
Liquid Scint Fe55, Solid-ALL FSS											
Iron-55	U	-6.44	+/-14.4	9.93	+/-14.4	20.1	pCi/g		DAJ1 01/09/05	0939	391875 3
Liquid Scint Ni63, Solid-ALL FSS											
Nickel-63	U	-3.34	+/-8.55	7.26	+/-8.55	14.9	pCi/g		DAJ1 01/09/05	0533	391882 4
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TC1	01/04/05	0841	391470
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/03/05	1736	391469

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: January 19, 2005

Client Sample ID: 3002-0000-189-C-3C-06
Sample ID: 128122016

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite							391468			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	DOE RESL Fe-1, Modified
4	DOE RESL Ni-1, Modified
5	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	91	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	56	

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

QUALITY CONTROL DATA

QC Summary

Report Date: January 19, 2005
Page 1 of 15

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390931										
QC1200763586 128121019 DUP										
Americium-241	U	0.0223	U	0.0146	pCi/g	42		(0% - 100%)	BJB1	01/10/05 19:59
	Uncert:	+/-0.0271		+/-0.0261						
	TPU:	+/-0.0272		+/-0.0262						
Curium-242	U	0.00132	U	0.00	pCi/g	200		(0% - 100%)		
	Uncert:	+/-0.0114		+/-0.00914						
	TPU:	+/-0.0114		+/-0.00914						
Curium-243/244	U	0.00244	U	-0.00465	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0149		+/-0.034						
	TPU:	+/-0.0149		+/-0.034						
QC1200763588 LCS										
Americium-241	4.91			4.92	pCi/g		100	(75%-125%)		
	Uncert:			+/-0.271						
	TPU:			+/-0.621						
Curium-242			U	0.00501	pCi/g					
	Uncert:			+/-0.0122						
	TPU:			+/-0.0122						
Curium-243/244	6.08			5.96	pCi/g		98	(75%-125%)		
	Uncert:			+/-0.300						
	TPU:			+/-0.741						
QC1200763585 MB										
Americium-241			U	0.00543	pCi/g					
	Uncert:			+/-0.0378						
	TPU:			+/-0.0378						
Curium-242			U	0.00286	pCi/g					
	Uncert:			+/-0.0175						
	TPU:			+/-0.0175						
Curium-243/244			U	0.0406	pCi/g					
	Uncert:			+/-0.0459						
	TPU:			+/-0.0461						
QC1200763587 128121019 MS										
Americium-241	5.10 U	0.0223		5.31	pCi/g		104	(75%-125%)		
	Uncert:	+/-0.0271		+/-0.302						
	TPU:	+/-0.0272		+/-0.680						
Curium-242	U	0.00132	U	0.00	pCi/g					
	Uncert:	+/-0.0114		+/-0.00944						
	TPU:	+/-0.0114		+/-0.00944						
Curium-243/244	6.33 U	0.00244		6.40	pCi/g		101	(75%-125%)		
	Uncert:	+/-0.0149		+/-0.334						
	TPU:	+/-0.0149		+/-0.808						
Batch 390932										
QC1200763590 128121019 DUP										
Plutonium-238	U	-0.00536	U	0.00318	pCi/g	N/A		(0% - 100%)	BJB1	01/07/05 16:04

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390932										
	Uncert:	+/-0.0231		+/-0.0241						
	TPU:	+/-0.0231		+/-0.0241						
Plutonium-239/240	U	0.00581	U	0.0145	pCi/g	86		(0% - 100%)		
	Uncert:	+/-0.0231		+/-0.0328						
	TPU:	+/-0.0231		+/-0.0328						
QC1200763592 LCS										
Plutonium-238			U	0.0109	pCi/g			(75%-125%)		
	Uncert:			+/-0.0308						
	TPU:			+/-0.0308						
Plutonium-239/240	4.30			4.04	pCi/g		94	(75%-125%)		
	Uncert:			+/-0.405						
	TPU:			+/-0.565						
QC1200763589 MB										
Plutonium-238			U	0.00386	pCi/g					01/07/05 16:04
	Uncert:			+/-0.0293						
	TPU:			+/-0.0293						
Plutonium-239/240			U	-0.00993	pCi/g					
	Uncert:			+/-0.0112						
	TPU:			+/-0.0113						
QC1200763591 128121019 MS										
Plutonium-238	U	-0.00536	U	0.0315	pCi/g			(75%-125%)		01/07/05 16:04
	Uncert:	+/-0.0231		+/-0.0391						
	TPU:	+/-0.0231		+/-0.0392						
Plutonium-239/240	4.47 U	0.00581		4.78	pCi/g		107	(75%-125%)		
	Uncert:	+/-0.0231		+/-0.458						
	TPU:	+/-0.0231		+/-0.656						
Batch 390933										
QC1200763594 128121019 DUP										
Plutonium-241	U	-0.84	U	-1.61	pCi/g	N/A		(0% - 100%)	BJB1	01/11/05 10:17
	Uncert:	+/-2.14		+/-2.03						
	TPU:	+/-2.14		+/-2.04						
QC1200763596 LCS										
Plutonium-241	62.3			55.0	pCi/g		88	(75%-125%)		01/11/05 12:21
	Uncert:			+/-3.14						
	TPU:			+/-5.62						
QC1200763593 MB										
Plutonium-241			U	0.623	pCi/g					01/11/05 09:15
	Uncert:			+/-2.24						
	TPU:			+/-2.24						
QC1200763595 128121019 MS										
Plutonium-241	65.0 U	-0.84		63.8	pCi/g		98	(75%-125%)		01/11/05 11:19
	Uncert:	+/-2.14		+/-3.47						
	TPU:	+/-2.14		+/-6.57						
Batch 392219										
QC1200766822 127994001 DUP										
Americium-241	U	0.236		0.181	pCi/g	26		(0% - 100%)	BJB1	01/15/05 13:11
	Uncert:	+/-0.313		+/-0.204						
	TPU:	+/-0.315		+/-0.206						
Curium-242	U	-0.0212	U	0.00	pCi/g	N/A		(0% - 100%)		

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 392219										
	Uncert:	+/-0.178		+/-0.134						
	TPU:	+/-0.178		+/-0.134						
Curium-243/244	U	0.398	U	0.212	pCi/g	61*		(0% - 100%)		
	Uncert:	+/-0.450		+/-0.240						
	TPU:	+/-0.453		+/-0.242						
QC1200766824 LCS										
Americium-241	25.3			25.0	pCi/g		99	(75%-125%)		
	Uncert:			+/-2.54						
	TPU:			+/-4.55						
Curium-242			U	0.00	pCi/g					
	Uncert:			+/-0.133						
	TPU:			+/-0.133						
Curium-243/244	31.3			35.9	pCi/g		115	(75%-125%)		
	Uncert:			+/-3.04						
	TPU:			+/-6.20						
QC1200766821 MB										
Americium-241			U	-0.108	pCi/g					
	Uncert:			+/-0.080						
	TPU:			+/-0.0816						
Curium-242			U	-0.0312	pCi/g					
	Uncert:			+/-0.135						
	TPU:			+/-0.135						
Curium-243/244			U	-0.0617	pCi/g					
	Uncert:			+/-0.140						
	TPU:			+/-0.140						
QC1200766823 127994001 MS										
Americium-241	26.5 U	0.236		27.2	pCi/g		102	(75%-125%)		
	Uncert:	+/-0.313		+/-2.58						
	TPU:	+/-0.315		+/-4.80						
Curium-242	U	-0.0212	U	-0.0174	pCi/g					
	Uncert:	+/-0.178		+/-0.146						
	TPU:	+/-0.178		+/-0.146						
Curium-243/244	32.9 U	0.398		36.7	pCi/g		110	(75%-125%)		
	Uncert:	+/-0.450		+/-3.00						
	TPU:	+/-0.453		+/-6.22						
Batch 392221										
QC1200766833 127994001 DUP										
Plutonium-241	U	3.54	U	0.673	pCi/g	0		(0% - 100%)	BJB1	01/18/05 02:52
	Uncert:	+/-14.3		+/-10.4						
	TPU:	+/-14.3		+/-10.4						
QC1200766835 LCS										
Plutonium-241	323			290	pCi/g		90	(75%-125%)		01/18/05 10:26
	Uncert:			+/-23.0						
	TPU:			+/-37.2						
QC1200766832 MB										
Plutonium-241			U	-1.95	pCi/g					01/18/05 00:48
	Uncert:			+/-7.83						
	TPU:			+/-7.84						
QC1200766834 127994001 MS										

QC Summary

Workorder: 128122

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec											
Batch 392221											
Plutonium-241	337	U	3.54		305	pCi/g		90	(75%-125%)		
	Uncert:		+/-14.3		+/-30.9						
	TPU:		+/-14.3		+/-51.2						
Batch 394891											
QC1200773239 128122001 DUP											
Plutonium-238		U	0.362	U	0.379	pCi/g	5		(0% - 100%)	AF1	01/18/05 08:38
	Uncert:		+/-0.300		+/-0.335						
	TPU:		+/-0.305		+/-0.340						
Plutonium-239/240		U	0.0298		0.319	pCi/g	166		(0% - 100%)		
	Uncert:		+/-0.160		+/-0.267						
	TPU:		+/-0.160		+/-0.271						
QC1200773241 LCS											
Plutonium-238				U	0.200	pCi/g			(75%-125%)		
	Uncert:				+/-0.344						
	TPU:				+/-0.345						
Plutonium-239/240	22.3				26.7	pCi/g		120	(75%-125%)		
	Uncert:				+/-2.45						
	TPU:				+/-4.50						
QC1200773238 MB											
Plutonium-238				U	0.168	pCi/g					
	Uncert:				+/-0.230						
	TPU:				+/-0.231						
Plutonium-239/240				U	0.00202	pCi/g					
	Uncert:				+/-0.110						
	TPU:				+/-0.110						
QC1200773240 128122001 MS											
Plutonium-238		U	0.362		0.491	pCi/g			(75%-125%)		
	Uncert:		+/-0.300		+/-0.337						
	TPU:		+/-0.305		+/-0.344						
Plutonium-239/240	22.5	U	0.0298		22.6	pCi/g		100	(75%-125%)		
	Uncert:		+/-0.160		+/-2.06						
	TPU:		+/-0.160		+/-3.70						
Rad Gamma Spec											
Batch 391590											
QC1200765184 128122002 DUP											
Actinium-228		U	0.447	U	1.17	pCi/g	90		(0% - 100%)	AKB	01/11/05 09:18
	Uncert:		+/-2.05		+/-2.26						
	TPU:		+/-2.01		+/-2.22						
Americium-241		U	-0.96	U	0.0188	pCi/g	N/A		(0% - 100%)		
	Uncert:		+/-1.19		+/-1.49						
	TPU:		+/-1.17		+/-1.46						
Bismuth-212		U	5.76	U	5.46	pCi/g	5		(0% - 20%)		
	Uncert:		+/-4.30		+/-4.68						
	TPU:		+/-4.21		+/-4.59						
Bismuth-214		U	0.350	U	-2.03	pCi/g	N/A		(0% - 100%)		
	Uncert:		+/-0.876		+/-0.882						
	TPU:		+/-0.858		+/-0.864						
Cesium-134			5.01		4.46	pCi/g	12		(0% - 100%)		

QC Summary

Workorder: **128122**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391590										
	Uncert:	+/-1.02		+/-0.975						
	TPU:	+/-0.995		+/-0.956						
Cesium-137	U	-0.589	U	0.515	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.460		+/-0.504						
	TPU:	+/-0.451		+/-0.494						
Cobalt-60		483		478	pCi/g	1		(0% - 20%)		
	Uncert:	+/-29.0		+/-25.8						
	TPU:	+/-28.4		+/-25.3						
Europium-152		727		744	pCi/g	2		(0% - 20%)		
	Uncert:	+/-48.4		+/-49.5						
	TPU:	+/-47.4		+/-48.5						
Europium-154		65.8		65.8	pCi/g	0		(0% - 20%)		
	Uncert:	+/-6.59		+/-6.54						
	TPU:	+/-6.46		+/-6.41						
Europium-155	U	1.12	U	1.17	pCi/g	5		(0% - 100%)		
	Uncert:	+/-1.14		+/-1.65						
	TPU:	+/-1.12		+/-1.62						
Lead-212	U	0.793	U	0.0279	pCi/g	186*				
	Uncert:	+/-0.677		+/-0.577						
	TPU:	+/-0.664		+/-0.566						
Lead-214		1.41	U	1.24	pCi/g	13		(0% - 20%)		
	Uncert:	+/-0.907		+/-0.981						
	TPU:	+/-0.888		+/-0.962						
Manganese-54	U	-0.237	U	-0.207	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.534		+/-0.582						
	TPU:	+/-0.523		+/-0.571						
Niobium-94	U	0.378	U	0.073	pCi/g	135*		(0% - 100%)		
	Uncert:	+/-0.413		+/-0.448						
	TPU:	+/-0.404		+/-0.439						
Potassium-40		7.23		7.52	pCi/g	4		(0% - 20%)		
	Uncert:	+/-3.95		+/-3.27						
	TPU:	+/-3.87		+/-3.21						
Radium-226	U	0.350	U	-2.03	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.876		+/-0.882						
	TPU:	+/-0.858		+/-0.864						
Silver-108m	U	0.0412	U	-0.0506	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.351		+/-0.385						
	TPU:	+/-0.344		+/-0.377						
Thallium-208		0.770	U	0.392	pCi/g	65*				
	Uncert:	+/-0.621		+/-0.540						
	TPU:	+/-0.608		+/-0.529						
QC1200765185 LCS										
Actinium-228			U	0.422	pCi/g					01/10/05 08:24
	Uncert:			+/-0.750						
	TPU:			+/-0.735						
Americium-241	23.4			24.1	pCi/g		103	(75%-125%)		
	Uncert:			+/-2.02						
	TPU:			+/-1.98						

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 391590											
Bismuth-212			U	-0.767	pCi/g						
	Uncert:			+/-1.22							
	TPU:			+/-1.20							
Bismuth-214			U	-0.16	pCi/g						
	Uncert:			+/-0.313							
	TPU:			+/-0.307							
Cesium-134			U	0.0732	pCi/g						
	Uncert:			+/-0.209							
	TPU:			+/-0.204							
Cesium-137	9.13			9.40	pCi/g		103	(75%-125%)			
	Uncert:			+/-0.975							
	TPU:			+/-0.955							
Cobalt-60	13.3			14.5	pCi/g		109	(75%-125%)			
	Uncert:			+/-1.19							
	TPU:			+/-1.17							
Europium-152			U	0.242	pCi/g						
	Uncert:			+/-0.360							
	TPU:			+/-0.352							
Europium-154			U	-0.181	pCi/g						
	Uncert:			+/-0.383							
	TPU:			+/-0.375							
Europium-155			U	0.321	pCi/g						
	Uncert:			+/-0.357							
	TPU:			+/-0.350							
Lead-212			U	-0.0961	pCi/g						
	Uncert:			+/-0.192							
	TPU:			+/-0.188							
Lead-214			U	0.120	pCi/g						
	Uncert:			+/-0.253							
	TPU:			+/-0.248							
Manganese-54			U	0.0197	pCi/g						
	Uncert:			+/-0.182							
	TPU:			+/-0.178							
Niobium-94			U	-0.0587	pCi/g						
	Uncert:			+/-0.156							
	TPU:			+/-0.153							
Potassium-40			U	1.19	pCi/g						
	Uncert:			+/-0.998							
	TPU:			+/-0.978							
Radium-226			U	-0.16	pCi/g			(75%-125%)			
	Uncert:			+/-0.313							
	TPU:			+/-0.307							
Silver-108m			U	-8.530E-05	pCi/g						
	Uncert:			+/-0.146							
	TPU:			+/-0.143							
Thallium-208			U	-0.0185	pCi/g						
	Uncert:			+/-0.155							
	TPU:			+/-0.151							

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 391590										
QC1200765183 MB										
Actinium-228			U	0.021	pCi/g					01/10/05 09:26
	Uncert:			+/-0.0708						
	TPU:			+/-0.0694						
Americium-241			U	0.0037	pCi/g					
	Uncert:			+/-0.0765						
	TPU:			+/-0.075						
Bismuth-212			U	0.0955	pCi/g					
	Uncert:			+/-0.112						
	TPU:			+/-0.110						
Bismuth-214			U	0.0262	pCi/g					
	Uncert:			+/-0.0665						
	TPU:			+/-0.0652						
Cesium-134			U	0.00259	pCi/g					
	Uncert:			+/-0.0152						
	TPU:			+/-0.0149						
Cesium-137			U	4.410E-05	pCi/g					
	Uncert:			+/-0.013						
	TPU:			+/-0.0128						
Cobalt-60			U	-0.00878	pCi/g					
	Uncert:			+/-0.0147						
	TPU:			+/-0.0144						
Europium-152			U	-0.00513	pCi/g					
	Uncert:			+/-0.0384						
	TPU:			+/-0.0376						
Europium-154			U	-0.00464	pCi/g					
	Uncert:			+/-0.0396						
	TPU:			+/-0.0388						
Europium-155			U	-0.0193	pCi/g					
	Uncert:			+/-0.0449						
	TPU:			+/-0.044						
Lead-212			UUI	0.00	pCi/g					
	Uncert:			+/-0.0259						
	TPU:			+/-0.0254						
Lead-214			U	0.0343	pCi/g					
	Uncert:			+/-0.032						
	TPU:			+/-0.0313						
Manganese-54			U	0.00771	pCi/g					
	Uncert:			+/-0.022						
	TPU:			+/-0.0216						
Niobium-94			U	0.00313	pCi/g					
	Uncert:			+/-0.0124						
	TPU:			+/-0.0121						
Potassium-40			U	0.140	pCi/g					
	Uncert:			+/-0.179						
	TPU:			+/-0.175						
Radium-226			U	0.0262	pCi/g					
	Uncert:			+/-0.0665						
	TPU:			+/-0.0652						

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 391590											
Silver-108m			U	0.000666	pCi/g						
	Uncert:			+/-0.0132							
	TPU:			+/-0.0129							
Thallium-208			U	0.00706	pCi/g						
	Uncert:			+/-0.026							
	TPU:			+/-0.0255							
Batch 393211											
QC1200769292 127994001 DUP											
Actinium-228	U	-0.42	U	3.99	pCi/g	N/A		(0% - 100%)	MJH1	01/18/05	14:17
	Uncert:	+/-4.52		+/-6.56							
	TPU:	+/-4.43		+/-6.43							
Americium-241	U	2.92	U	-0.309	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-3.59		+/-1.23							
	TPU:	+/-3.52		+/-1.20							
Barium-133	U	0.109	U	0.361	pCi/g	107		(0% - 20%)			
	Uncert:	+/-1.00		+/-1.11							
	TPU:	+/-0.983		+/-1.09							
Bismuth-212	U	2.27	U	3.23	pCi/g	35*					
	Uncert:	+/-8.71		+/-10.3							
	TPU:	+/-8.54		+/-10.1							
Bismuth-214	UUI	0.00	U	1.73	pCi/g	106*					
	Uncert:	+/-4.68		+/-2.11							
	TPU:	+/-4.58		+/-2.07							
Cesium-134	U	0.250	U	1.07	pCi/g	124		(0% - 100%)			
	Uncert:	+/-1.22		+/-1.56							
	TPU:	+/-1.19		+/-1.53							
Cesium-137		12.6		16.0	pCi/g	23		(0% - 100%)			
	Uncert:	+/-2.14		+/-3.00							
	TPU:	+/-2.10		+/-2.94							
Cobalt-60		135		146	pCi/g	8		(0% - 20%)			
	Uncert:	+/-9.60		+/-7.14							
	TPU:	+/-9.40		+/-6.99							
Europium-152	U	-0.488	U	1.18	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-2.17		+/-2.53							
	TPU:	+/-2.13		+/-2.48							
Europium-154	U	1.91	U	-0.486	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-1.48		+/-3.35							
	TPU:	+/-1.45		+/-3.29							
Europium-155	U	1.15	U	0.274	pCi/g	123		(0% - 100%)			
	Uncert:	+/-2.17		+/-1.92							
	TPU:	+/-2.13		+/-1.88							
Lead-212	U	1.84	U	0.686	pCi/g	91		(0% - 20%)			
	Uncert:	+/-2.45		+/-1.97							
	TPU:	+/-2.40		+/-1.93							
Lead-214	U	0.552	U	0.0618	pCi/g	160*					
	Uncert:	+/-1.56		+/-1.78							
	TPU:	+/-1.53		+/-1.74							
Manganese-54	U	0.979	U	-0.235	pCi/g	N/A		(0% - 100%)			

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 393211										
	Uncert:	+/-1.21		+/-1.55						
	TPU:	+/-1.19		+/-1.52						
Niobium-94	U	-0.129	U	0.474	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.901		+/-1.16						
	TPU:	+/-0.883		+/-1.14						
Potassium-40	U	2.18	U	9.70	pCi/g	126*		(0%-20%)		
	Uncert:	+/-7.14		+/-8.53						
	TPU:	+/-6.99		+/-8.36						
Radium-226	UUI	0.00	U	1.73	pCi/g	106*		(0% - 100%)		
	Uncert:	+/-4.68		+/-2.11						
	TPU:	+/-4.58		+/-2.07						
Silver-108m	U	-0.0257	U	0.697	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.767		+/-0.900						
	TPU:	+/-0.752		+/-0.882						
Thallium-208	U	1.05	U	0.715	pCi/g	38		(0% - 20%)		
	Uncert:	+/-0.927		+/-1.26						
	TPU:	+/-0.909		+/-1.23						
QC1200769293 LCS										
Actinium-228			U	1.43	pCi/g					01/19/05 09:39
	Uncert:			+/-2.15						
	TPU:			+/-2.11						
Americium-241	31.2			28.6	pCi/g		92	(75%-125%)		
	Uncert:			+/-6.05						
	TPU:			+/-5.93						
Barium-133			U	-0.274	pCi/g					
	Uncert:			+/-0.426						
	TPU:			+/-0.417						
Bismuth-212			U	0.936	pCi/g					
	Uncert:			+/-3.13						
	TPU:			+/-3.06						
Bismuth-214			U	0.000234	pCi/g					
	Uncert:			+/-0.789						
	TPU:			+/-0.773						
Cesium-134			U	-0.206	pCi/g					
	Uncert:			+/-0.456						
	TPU:			+/-0.447						
Cesium-137	12.2			10.3	pCi/g		85	(75%-125%)		
	Uncert:			+/-1.58						
	TPU:			+/-1.55						
Cobalt-60	17.7			17.0	pCi/g		96	(75%-125%)		
	Uncert:			+/-2.20						
	TPU:			+/-2.16						
Europium-152			U	0.663	pCi/g					
	Uncert:			+/-1.10						
	TPU:			+/-1.08						
Europium-154			U	0.346	pCi/g					
	Uncert:			+/-0.815						
	TPU:			+/-0.799						

QC Summary

Workorder: **128122**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 393211											
Europium-155			U	0.0895	pCi/g						
	Uncert:			+/-1.14							
	TPU:			+/-1.12							
Lead-212			U	0.203	pCi/g						
	Uncert:			+/-0.590							
	TPU:			+/-0.578							
Lead-214			U	0.115	pCi/g						
	Uncert:			+/-0.659							
	TPU:			+/-0.646							
Manganese-54			U	0.204	pCi/g						
	Uncert:			+/-0.397							
	TPU:			+/-0.389							
Niobium-94			U	-0.11	pCi/g						
	Uncert:			+/-0.373							
	TPU:			+/-0.366							
Potassium-40			U	-0.58	pCi/g						
	Uncert:			+/-3.92							
	TPU:			+/-3.85							
Radium-226			U	0.000234	pCi/g			(75%-125%)			
	Uncert:			+/-0.789							
	TPU:			+/-0.773							
Silver-108m			U	0.0869	pCi/g						
	Uncert:			+/-0.367							
	TPU:			+/-0.359							
Thallium-208			U	-0.0572	pCi/g						
	Uncert:			+/-0.363							
	TPU:			+/-0.356							
QC1200769291 MB											
Actinium-228			U	0.429	pCi/g					01/17/05	11:36
	Uncert:			+/-0.533							
	TPU:			+/-0.522							
Americium-241			U	-0.00749	pCi/g						
	Uncert:			+/-0.156							
	TPU:			+/-0.153							
Barium-133			U	0.00594	pCi/g						
	Uncert:			+/-0.167							
	TPU:			+/-0.164							
Bismuth-212			U	0.550	pCi/g						
	Uncert:			+/-0.973							
	TPU:			+/-0.954							
Bismuth-214			U	0.320	pCi/g						
	Uncert:			+/-0.257							
	TPU:			+/-0.252							
Cesium-134			U	0.0154	pCi/g						
	Uncert:			+/-0.136							
	TPU:			+/-0.134							
Cesium-137			U	0.117	pCi/g						
	Uncert:			+/-0.127							

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 393211										
	TPU:			+/-0.125						
Cobalt-60			U	-0.0111	pCi/g					
	Uncert:			+/-0.131						
	TPU:			+/-0.128						
Europium-152			U	-0.0234	pCi/g					
	Uncert:			+/-0.279						
	TPU:			+/-0.273						
Europium-154			U	-0.156	pCi/g					
	Uncert:			+/-0.396						
	TPU:			+/-0.388						
Europium-155			U	0.0223	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.247						
Lead-212			UUI	0.00	pCi/g					
	Uncert:			+/-0.313						
	TPU:			+/-0.307						
Lead-214			U	0.130	pCi/g					
	Uncert:			+/-0.371						
	TPU:			+/-0.364						
Manganese-54			U	-0.0297	pCi/g					
	Uncert:			+/-0.139						
	TPU:			+/-0.136						
Niobium-94			U	-0.0296	pCi/g					
	Uncert:			+/-0.117						
	TPU:			+/-0.115						
Potassium-40			U	1.66	pCi/g					
	Uncert:			+/-1.38						
	TPU:			+/-1.35						
Radium-226			U	0.320	pCi/g					
	Uncert:			+/-0.257						
	TPU:			+/-0.252						
Silver-108m			U	0.0689	pCi/g					
	Uncert:			+/-0.123						
	TPU:			+/-0.121						
Thallium-208			U	0.0204	pCi/g					
	Uncert:			+/-0.164						
	TPU:			+/-0.161						
Rad Gas Flow										
Batch 391514										
QC1200764957 128122002 DUP										
Strontium-90		0.0273	U	0.0127	pCi/g	73*		(0% - 100%)	JMB1	01/11/05 05:02
	Uncert:	+/-0.0107		+/-0.008						
	TPU:	+/-0.0132		+/-0.00865						
QC1200764959 LCS										
Strontium-90	1.46			1.28	pCi/g		88	(75%-125%)		01/10/05 20:33
	Uncert:			+/-0.0829						
	TPU:			+/-0.302						
QC1200764956 MB										

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 391514										
Strontium-90			U	-0.00857	pCi/g					
	Uncert:			+/-0.00643						
	TPU:			+/-0.00667						
QC1200764958 128122002 MS										
Strontium-90	2.86	0.0273		2.22	pCi/g		77	(75%-125%)		01/11/05 13:46
	Uncert:	+/-0.0107		+/-0.149						
	TPU:	+/-0.0132		+/-0.576						
Batch 392498										
QC1200767448 127994001 DUP										
Strontium-90		1.75		1.50	pCi/g	15		(0% - 20%)	JMB1	01/14/05 20:44
	Uncert:	+/-0.154		+/-0.142						
	TPU:	+/-0.510		+/-0.406						
QC1200767450 LCS										
Strontium-90	18.1			16.8	pCi/g		93	(75%-125%)		01/14/05 13:24
	Uncert:			+/-0.993						
	TPU:			+/-4.06						
QC1200767447 MB										
Strontium-90			U	-0.00886	pCi/g					01/14/05 20:44
	Uncert:			+/-0.0829						
	TPU:			+/-0.0829						
QC1200767449 127994001 MS										
Strontium-90	35.7	1.75		35.0	pCi/g		93	(75%-125%)		01/14/05 13:24
	Uncert:	+/-0.154		+/-1.99						
	TPU:	+/-0.510		+/-8.29						
Rad Liquid Scintillation										
Batch 391077										
QC1200763983 128122003 DUP										
Technetium-99	U	0.459	U	0.0518	pCi/g	119		(0% - 100%)	EGD1	01/09/05 16:04
	Uncert:	+/-0.340		+/-0.345						
	TPU:	+/-0.340		+/-0.345						
QC1200763985 LCS										
Technetium-99	28.4			30.8	pCi/g		108	(75%-125%)		01/09/05 17:08
	Uncert:			+/-0.911						
	TPU:			+/-1.15						
QC1200763982 MB										
Technetium-99			U	0.418	pCi/g					01/09/05 15:32
	Uncert:			+/-0.330						
	TPU:			+/-0.331						
QC1200763984 128122003 MS										
Technetium-99	28.6 U	0.459		30.5	pCi/g		105	(75%-125%)		01/09/05 16:36
	Uncert:	+/-0.340		+/-0.936						
	TPU:	+/-0.340		+/-1.17						
Batch 391772										
QC1200765685 128122005 DUP										
Tritium		830		775	pCi/g	7		(0% - 20%)	DAJ1	01/05/05 04:22
	Uncert:	+/-26.7		+/-26.1						
	TPU:	+/-103		+/-93.8						
QC1200765687 LCS										

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 391772										
Tritium	9.81			9.15	pCi/g		93	(75%-125%)		
	Uncert:			+/-2.14						
	TPU:			+/-2.40						
QC1200765684 MB										
Tritium			U	0.215	pCi/g					01/05/05 03:51
	Uncert:			+/-1.48						
	TPU:			+/-1.48						
QC1200765686 128122005 MS										
Tritium	31.3	830		830	pCi/g		-1 *	(75%-125%)		01/05/05 04:53
	Uncert:	+/-26.7		+/-27.4						
	TPU:	+/-103		+/-103						
Batch 391776										
QC1200765689 128173003 DUP										
Carbon-14	U	0.448	U	0.292	pCi/g	0		(0% - 100%)	LAG1	01/06/05 09:50
	Uncert:	+/-0.408		+/-0.355						
	TPU:	+/-0.408		+/-0.355						
QC1200765691 LCS										
Carbon-14	14.6			13.2	pCi/g		90	(75%-125%)		01/06/05 10:56
	Uncert:			+/-0.743						
	TPU:			+/-0.771						
QC1200765688 MB										
Carbon-14			U	0.469	pCi/g					01/06/05 09:18
	Uncert:			+/-0.382						
	TPU:			+/-0.382						
QC1200765690 128173003 MS										
Carbon-14	20.5 U	0.448		19.2	pCi/g		91	(75%-125%)		01/06/05 10:23
	Uncert:	+/-0.408		+/-1.04						
	TPU:	+/-0.408		+/-1.08						
Batch 391875										
QC1200765960 128121019 DUP										
Iron-55	U	12.4		26.3	pCi/g	72		(0% - 100%)	DAJ1	01/09/05 10:43
	Uncert:	+/-13.4		+/-16.5						
	TPU:	+/-13.4		+/-16.6						
QC1200765962 LCS										
Iron-55	52.5			53.2	pCi/g		101	(75%-125%)		01/09/05 11:46
	Uncert:			+/-1.71						
	TPU:			+/-2.70						
QC1200765959 MB										
Iron-55			U	-0.472	pCi/g					01/09/05 10:11
	Uncert:			+/-1.28						
	TPU:			+/-1.28						
QC1200765961 128121019 MS										
Iron-55	648 U	12.4		681	pCi/g		103	(75%-125%)		01/09/05 11:14
	Uncert:	+/-13.4		+/-21.6						
	TPU:	+/-13.4		+/-34.4						
Batch 391882										
QC1200765981 128121019 DUP										
Nickel-63	U	-0.48	U	1.98	pCi/g	N/A		(0% - 100%)	DAJ1	01/09/05 07:06

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 391882										
	Uncert:	+/-6.31		+/-8.75						
	TPU:	+/-6.31		+/-8.75						
QC1200765983 LCS										
Nickel-63	41.8			44.5	pCi/g		107	(75%-125%)		01/09/05 08:39
	Uncert:			+/-1.66						
	TPU:			+/-2.24						
QC1200765980 MB										
Nickel-63			U	0.0082	pCi/g					01/09/05 06:19
	Uncert:			+/-0.597						
	TPU:			+/-0.597						
QC1200765982 128121019 MS										
Nickel-63	510 U	-0.48		551	pCi/g		108	(75%-125%)		01/09/05 07:52
	Uncert:	+/-6.31		+/-19.3						
	TPU:	+/-6.31		+/-26.7						
Batch 392560										
QC1200767655 128122001 DUP										
Nickel-63		85.8		82.1	pCi/g	4		(0% - 100%)	DAJ1	01/15/05 15:31
	Uncert:	+/-4.42		+/-4.64						
	TPU:	+/-5.28		+/-5.40						
QC1200767657 LCS										
Nickel-63	246			278	pCi/g		113	(75%-125%)		01/15/05 19:18
	Uncert:			+/-7.52						
	TPU:			+/-12.0						
QC1200767654 MB										
Nickel-63			U	1.14	pCi/g					01/15/05 13:25
	Uncert:			+/-3.28						
	TPU:			+/-3.28						
QC1200767656 128122001 MS										
Nickel-63	258	85.8		358	pCi/g		106	(75%-125%)		01/15/05 17:14
	Uncert:	+/-4.42		+/-8.38						
	TPU:	+/-5.28		+/-14.7						
Batch 393090										
QC1200768959 128173001 DUP										
Technetium-99		7.43		8.03	pCi/g	8		(0% - 100%)	EGD1	01/17/05 17:27
	Uncert:	+/-1.40		+/-1.46						
	TPU:	+/-1.41		+/-1.48						
QC1200768961 LCS										
Technetium-99	108			132	pCi/g		123	(75%-125%)		01/17/05 18:31
	Uncert:			+/-3.89						
	TPU:			+/-5.20						
QC1200768958 MB										
Technetium-99			U	0.145	pCi/g					01/17/05 14:44
	Uncert:			+/-0.706						
	TPU:			+/-0.706						
QC1200768960 128173001 MS										
Technetium-99	112	7.43		127	pCi/g		107	(75%-125%)		01/17/05 17:59
	Uncert:	+/-1.40		+/-3.86						
	TPU:	+/-1.41		+/-5.10						
Batch 395047										

QC Summary

Workorder: 128122

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 395047										
QC1200773522 128122001 DUP										
Iron-55		10000		10400	pCi/g	4		(0% - 20%)	DAJ1	01/19/05 11:24
	Uncert:	+/-111		+/-114						
	TPU:	+/-387		+/-403						
QC1200773524 LCS										
Iron-55	3050			2990	pCi/g		98	(75%-125%)		01/19/05 12:26
	Uncert:			+/-77.7						
	TPU:			+/-135						
QC1200773521 MB										
Iron-55				88.3	pCi/g					01/19/05 13:50
	Uncert:			+/-65.8						
	TPU:			+/-65.9						
QC1200773523 128122001 MS										
Iron-55	3300	10000		13500	pCi/g		106	(75%-125%)		01/19/05 11:55
	Uncert:	+/-111		+/-126						
	TPU:	+/-387		+/-516						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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GENERAL NARRATIVE

CASE NARRATIVE
FOR
CONNECTICUT YANKEE
RE: Soil and Concrete
PO# 002337
Work Order: 128452

January 25, 2005

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 6, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures except in items of note located below.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
128452001	3002-0000-191-C-Liner
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
128452004	3002-0000-191-C-1C-03
128452005	3002-0000-191-C-1C-04
128452006	3002-0000-191-C-1C-05
128452007	3002-0000-191-C-2C-01
128452008	3002-0000-191-C-2C-02
128452009	3002-0000-191-C-2C-03
128452010	3002-0000-191-C-2C-04
128452011	3002-0000-191-C-2C-05
128452012	3002-0000-191-C-2C-06
128452013	3002-0000-191-C-3C-01
128452014	3002-0000-191-C-3C-02
128452015	3002-0000-191-C-3C-03

Items of Note:

Due to the special matrix of sample 3002-0000-191-Liner, Pete Hollenbeck was contacted for technical guidance. Based on the assumption that the sample matrix was uniformly activated, a small portion of the sample was dissolved for analytical preparation. H_3 & C_{14} are not reported on this sample, due to the acid dissolution preparation.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One solid sample was analyzed for CHALL.
Two concrete samples were analyzed for CHALL.
Twelve concrete samples were analyzed for CHGAM, H-3, Ni-63, & Fe-55

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00312

GEL-128452

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 Att: Sarah Kozlik

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55	CHALL		Comment, Preservation	Lab Sample ID
3002-0000-191-C-Liner	12/13/04	1000	SS	CR	BP					X	.1	2"	
3002-0000-191-C-1C-01	12/13/04	1015	CT	CR	BP					X	.2	2"	
3002-0000-191-C-1C-02	12/13/04	1015	CT	CR	BP					X	.2	2"	
3002-0000-191-C-1C-03	12/13/04	1015	CT	CR	BP	X	X	X	X		.3	2"	
3002-0000-191-C-1C-04	12/13/04	1015	CT	CR	BP	X	X	X	X			2.5"	
3002-0000-191-C-1C-05	12/13/04	1015	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-2C-01	12/13/04	1045	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-2C-02	12/13/04	1045	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-2C-03	12/13/04	1045	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-2C-04	12/13/04	1045	CT	CR	BP	X	X	X	X			2"	

NOTES: PO #: 002337 MSR #: 04-4170 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
8464 7421 6001
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: John A. Goetz Date/Time: 1/5/05 1330	2) Received By: [signature] Date/Time: 1-6-05 9:15
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00313

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 Att: Sarah Kozlik

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Ni-63	Fe-55			Comment, Preservation	Lab Sample ID
3002-0000-191-C-2C-05	12/13/04	1045	CT	CR	BP	X	X	X	X		-3	2"	
3002-0000-191-C-2C-06	12/13/04	1045	CT	CR	BP	X	X	X	X			1"	
3002-0000-191-C-3C-01	12/13/04	1430	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-3C-02	12/13/04	1430	CT	CR	BP	X	X	X	X			2"	
3002-0000-191-C-3C-03	12/13/04	1430	CT	CR	BP	X	X	X	X			2.5"	

NOTES: PO #: 002337 MSR #: 04-4170 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Analyze all samples to the Concrete RDLs in Table 21 of the SOW dated August 27, 2003

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
8464 7421 6001
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 1/5/05 1330	2) Received By: [signature] Date/Time 1-6-05 9:18AM
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-16-05 915

SDG#: MSR# 04-4170

Work Order Number: 128452

Shipping Container ID: 8464 7121 6001 Chain of Custody # 2004-00313

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. *Chain-of-Custody record present?* Yes [✓] No [ ]
4. Cooler temperature 11.0C
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: _____
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: Henry Smalls Date: 1-16-05 MH

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only 128452

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 128452
Date Received: 1-6-05	PM(A) Review (ensure non-conforming items are resolved prior to signing): 1/10/05
Received By:	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other(describe) 11°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	8461 7421 6001			

Radiological Information	Non-RAD	RAD	RADH	RSO RAD Receipt #
What is the radiological classification of the samples?		✓	✓	Comments:
Radioactivity Screening Results (maximum observed CPM)	6,000			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 1/10/05 Date:

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-4170

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	395131
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200773711	Method Blank (MB)
1200773712	128423003(3002-0000-192-C-1C-01) Sample Duplicate (DUP)
1200773713	128423003(3002-0000-192-C-1C-01) Matrix Spike (MS)
1200773714	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423003 (3002-0000-192-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Batch was reprepped with larger aliquots to meet the detection limits.
Sample 128452002 (3002-0000-191-C-1C-01) was recounted due to high MDA.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396044
Prep Batch Number:	392866
Dry Soil Prep GL-RAD-A-021 Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200775770	Method Blank (MB)
1200775771	128452001(3002-0000-191-C-Liner) Sample Duplicate (DUP)
1200775772	128452001(3002-0000-191-C-Liner) Matrix Spike (MS)
1200775773	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 128452001 (3002-0000-191-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200775770 (MB) was recounted due to a suspected blank false positive.
The following samples were reprepped due to high MDA's: 1200775770 (MB), 1200775771 (3002-0000-191-C-Liner), 1200775772 (3002-0000-191-C-Liner), 1200775773 (LCS) and 128452001 (3002-0000-191-C-Liner).
The following samples were reprepped due to low tracer yield on the QC sample: 1200775770 (MB), 1200775771 (3002-0000-191-C-Liner), 1200775772 (3002-0000-191-C-Liner), 1200775773 (LCS) and 128452001 (3002-0000-191-C-Liner).

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Blank 1200775770 (MB) MDA's for Cm-3/4 and Am-241 are above the detection limits, but less than the least active samples. Blank activity is below the MDA and RDL for the requested isotopes.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	395104
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200773673	Method Blank (MB)
1200773674	128423003(3002-0000-192-C-1C-01) Sample Duplicate (DUP)
1200773675	128423003(3002-0000-192-C-1C-01) Matrix Spike (MS)
1200773676	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering

Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423003 (3002-0000-192-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Batch was reprepped with larger aliquots to meet the detection limits.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	395359
Prep Batch Number:	392866

Dry Soil Prep GL-RAD-A-021 Batch Number: 392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200774142	Method Blank (MB)
1200774143	128452001(3002-0000-191-C-Liner) Sample Duplicate (DUP)
1200774144	128452001(3002-0000-191-C-Liner) Matrix Spike (MS)
1200774145	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452001 (3002-0000-191-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1200774143 (3002-0000-191-C-Liner), 1200774144 (3002-0000-191-C-Liner) and 1200774145 (LCS) were recounted due to poor resolution.
The following samples were reprepped with a larger aliquot to meet the detection limits: 1200774142 (MB), 1200774143 (3002-0000-191-C-Liner), 1200774144 (3002-0000-191-C-Liner), 1200774145 (LCS) and 128452001 (3002-0000-191-C-Liner).

Miscellaneous Information:

NCR Documentation
NCR ID 174904. 1. Samples 128423001, 128423002, 128452001, 1200774143, and 1200774144 have poor

resolution due to the matrix of the samples. The batch was reprepped with a larger aliquot in order to meet the detection limits. These larger aliquots result in lower yields and poor resolution. 1. Reporting results.

Manual Integration
Manual integration of alpha spectroscopy spectra 128452001 (3002-0000-191-C-Liner) was performed to fully separate counts in Regions of Interest which would have been biased.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	395360
Prep Batch Number:	392866
Dry Soil Prep GL-RAD-A-021 Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200774146	Method Blank (MB)
1200774147	128452001(3002-0000-191-C-Liner) Sample Duplicate (DUP)
1200774148	128452001(3002-0000-191-C-Liner) Matrix Spike (MS)
1200774149	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452001 (3002-0000-191-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
NCR 175725 was generated due to RDL less than MDA. 1. The following samples did not meet the RDL due to limited sample volume: 128423 001,002, 1200774146 1. The results are reported.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	396213
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200776154	Method Blank (MB)
1200776155	128452002(3002-0000-191-C-1C-01) Sample Duplicate (DUP)
1200776156	128452002(3002-0000-191-C-1C-01) Matrix Spike (MS)
1200776157	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452002 (3002-0000-191-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
The entire batch was reprepared with a larger sample aliquot because the RDL was not met on the initial analysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	392895

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768495	Method Blank (MB)
1200768496	128452002(3002-0000-191-C-1C-01) Sample Duplicate (DUP)
1200768497	128452002(3002-0000-191-C-1C-01) Matrix Spike (MS)
1200768498	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452002 (3002-0000-191-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	396742

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200777356	Method Blank (MB)
1200777357	128423001(3002-0000-192-Liner) Sample Duplicate (DUP)
1200777358	128423001(3002-0000-192-Liner) Matrix Spike (MS)
1200777359	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423001 (3002-0000-192-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were recounted due to high MDAs.
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified

Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392874
Prep Batch Number:	392866
Dry Soil Prep GL-RAD-A-021 Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200768433	Method Blank (MB)
1200768434	128423001(3002-0000-192-Liner) Sample Duplicate (DUP)
1200768435	128423001(3002-0000-192-Liner) Matrix Spike (MS)
1200768436	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423001 (3002-0000-192-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200768433 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	392890
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768476	Method Blank (MB)
1200768477	128423004(3002-0000-192-C-1C-02) Sample Duplicate (DUP)
1200768478	128423004(3002-0000-192-C-1C-02) Matrix Spike (MS)
1200768479	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423004 (3002-0000-192-C-1C-02).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200768476 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	397064
Prep Batch Number:	392916
Dry Soil Prep GL-RAD-A-021 Batch Number:	392915

Sample ID	Client ID
128452004	3002-0000-191-C-1C-03
128452005	3002-0000-191-C-1C-04
128452006	3002-0000-191-C-1C-05
128452007	3002-0000-191-C-2C-01
128452008	3002-0000-191-C-2C-02
128452009	3002-0000-191-C-2C-03
128452010	3002-0000-191-C-2C-04
128452011	3002-0000-191-C-2C-05
128452012	3002-0000-191-C-2C-06
128452013	3002-0000-191-C-3C-01
128452014	3002-0000-191-C-3C-02
128452015	3002-0000-191-C-3C-03
1200778077	Method Blank (MB)
1200778078	128452004(3002-0000-191-C-1C-03) Sample Duplicate (DUP)
1200778079	128452004(3002-0000-191-C-1C-03) Matrix Spike (MS)
1200778080	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452004 (3002-0000-191-C-1C-03).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to low/high recovery.
The entire batch was recounted due to an error on the original count.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 177434 was generated due to RDL less than MDA. 1. The following samples did not meet the RDL, due to aliquot size restrictions related to the matrix: 128452 010,011,012,013,015 1200778077 1. The results are reported.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392875
Prep Batch Number:	392866
Dry Soil Prep GL-RAD-A-021 Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200768437	Method Blank (MB)
1200768438	128452001(3002-0000-191-C-Liner) Sample Duplicate (DUP)
1200768439	128452001(3002-0000-191-C-Liner) Matrix Spike (MS)
1200768440	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452001 (3002-0000-191-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	392894
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768487	Method Blank (MB)
1200768488	128423004(3002-0000-192-C-1C-02) Sample Duplicate (DUP)
1200768489	128423004(3002-0000-192-C-1C-02) Matrix Spike (MS)
1200768490	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423004 (3002-0000-192-C-1C-02).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392918
Prep Batch Number:	392916
Dry Soil Prep GL-RAD-A-021 Batch Number:	392915

Sample ID	Client ID
128452004	3002-0000-191-C-1C-03
128452005	3002-0000-191-C-1C-04
128452006	3002-0000-191-C-1C-05
128452007	3002-0000-191-C-2C-01
128452008	3002-0000-191-C-2C-02
128452009	3002-0000-191-C-2C-03
128452010	3002-0000-191-C-2C-04
128452011	3002-0000-191-C-2C-05
128452012	3002-0000-191-C-2C-06
128452013	3002-0000-191-C-3C-01
128452014	3002-0000-191-C-3C-02
128452015	3002-0000-191-C-3C-03
1200768554	Method Blank (MB)
1200768555	128452004(3002-0000-191-C-1C-03) Sample Duplicate (DUP)
1200768556	128452004(3002-0000-191-C-1C-03) Matrix Spike (MS)
1200768557	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452004 (3002-0000-191-C-1C-03).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	392867
Prep Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200768412	Method Blank (MB)

1200768413 128452001(3002-0000-191-C-Liner) Sample Duplicate (DUP)
1200768414 Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452001 (3002-0000-191-C-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
The duplicate sample 1200768413 (3002-0000-191-C-Liner) was recounted due to failed relative percent difference. The second count data is acceptable and is reported.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Europium-154	128452001
		Lead-212	1200768412

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	392884
Prep Batch Number:	392880

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768451	Method Blank (MB)
1200768452	128452002(3002-0000-191-C-1C-01) Sample Duplicate (DUP)
1200768453	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452002 (3002-0000-191-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Potassium-40	1200768452
			128452003

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	399404
Prep Batch Number:	392915

Sample ID	Client ID
128452004	3002-0000-191-C-1C-03
128452005	3002-0000-191-C-1C-04
128452006	3002-0000-191-C-1C-05
128452007	3002-0000-191-C-2C-01
128452008	3002-0000-191-C-2C-02
128452009	3002-0000-191-C-2C-03
128452010	3002-0000-191-C-2C-04
128452011	3002-0000-191-C-2C-05
128452012	3002-0000-191-C-2C-06
128452013	3002-0000-191-C-3C-01
128452014	3002-0000-191-C-3C-02
128452015	3002-0000-191-C-3C-03
1200783814	Method Blank (MB)
1200783815	128452004(3002-0000-191-C-1C-03) Sample Duplicate (DUP)
1200783816	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452004 (3002-0000-191-C-1C-03).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Bismuth-214	128452011
			128452013
		Lead-212	128452006
			128452008
			128452009
			128452015
		Lead-214	128452006
		Niobium-94	128452007
		Thallium-208	128452008
UI	Data rejected due to no valid peak.	Cesium-137	128452009
		Potassium-40	1200783815
			128452004
			128452005
		Thallium-208	128452009

Method/Analysis Information

Product: **GFPC, Sr90, solid High Rad (CT)**
Analytical Method: EPA 905.0 Modified

Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	392873
Prep Batch Number:	392866
Dry Soil Prep GL-RAD-A-021 Batch Number:	392865

Sample ID	Client ID
128452001	3002-0000-191-C-Liner
1200768429	Method Blank (MB)
1200768430	128423002(3002-0000-190-Liner) Sample Duplicate (DUP)
1200768431	128423002(3002-0000-190-Liner) Matrix Spike (MS)
1200768432	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128423002 (3002-0000-190-Liner).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200768430 (3002-0000-190-Liner) was recounted to verify the failed relative percent difference.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
NCR ID 175700 1200768430 (3002-0000-190-Liner). The following NCR was generated for this SDG: NCR 175700 was generated due to Failed RPD for DUP. 1. Failed RPD for DUP:QC 1200768430DUP and 128423002. RER passed at 0.767. 1. Reported results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200768429 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, solid High Rad (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Analytical Batch Number:	396743
Prep Batch Number:	392881

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200777360	Method Blank (MB)
1200777361	128452003(3002-0000-191-C-1C-02) Sample Duplicate (DUP)
1200777362	128452003(3002-0000-191-C-1C-02) Matrix Spike (MS)
1200777363	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452003 (3002-0000-191-C-1C-02).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
This whole batch was reprepped due to failed relative percent difference on the first analysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	392897

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768499	Method Blank (MB)
1200768500	128452002(3002-0000-191-C-1C-01) Sample Duplicate (DUP)
1200768501	128452002(3002-0000-191-C-1C-01) Matrix Spike (MS)
1200768502	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452002 (3002-0000-191-C-1C-01).

QC Information
The Matrix Spike sample 1200768501 (3002-0000-191-C-1C-01) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200768499 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	392919

Sample ID	Client ID
128452004	3002-0000-191-C-1C-03
128452005	3002-0000-191-C-1C-04
128452006	3002-0000-191-C-1C-05
128452007	3002-0000-191-C-2C-01

128452008	3002-0000-191-C-2C-02
128452009	3002-0000-191-C-2C-03
128452010	3002-0000-191-C-2C-04
128452011	3002-0000-191-C-2C-05
128452012	3002-0000-191-C-2C-06
128452013	3002-0000-191-C-3C-01
128452014	3002-0000-191-C-3C-02
128452015	3002-0000-191-C-3C-03
1200768558	Method Blank (MB)
1200768559	128452004(3002-0000-191-C-1C-03) Sample Duplicate (DUP)
1200768560	128452004(3002-0000-191-C-1C-03) Matrix Spike (MS)
1200768561	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452004 (3002-0000-191-C-1C-03).

QC Information
The Matrix Spike sample 1200768560 (3002-0000-191-C-1C-03) did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1200768558 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	392898

Sample ID	Client ID
128452002	3002-0000-191-C-1C-01
128452003	3002-0000-191-C-1C-02
1200768507	Method Blank (MB)
1200768508	128452002(3002-0000-191-C-1C-01) Sample Duplicate (DUP)
1200768509	128452002(3002-0000-191-C-1C-01) Matrix Spike (MS)
1200768510	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128452002 (3002-0000-191-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather D Chase 2/8/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 175725
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE EML HASL-300, Pu-11-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
395360	See Below		

Potentially affected work order(s)(SDG): 128423(MSR#05-0053),128452(MSR#04-4170)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The following samples did not meet the RDL due to limited sample volume: 128423 001,002 1200774146	1. The results are reported.

Originator's Name:
Keith Doran 26-JAN-05

Data Validator/Group Leader:
Scott Moreland 26-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 177434
Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
397064	See Below		

Potentially affected work order(s)(SDG): 128452(MSR#04-4170)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The following samples did not meet the RDL, due to aliquot size restrictions related to the matrix: 128452 010,011,012,013,015 1200778077	1. The results are reported.

Originator's Name:
Keith Doran 02-FEB-05

Data Validator/Group Leader:
Scott Moreland 02-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 175700
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	GL-RAD-A-004	Solid	YANK
Batch ID:	**Sample Numbers:**		
392873	See Below		

Potentially affected work order(s)(SDG): 128423(MSR#05-0053),128452(MSR#04-4170)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed RPD for DUP:QC 1200768430DUP and 128423002. RER passed at 0.767.	1. Reported results.

Originator's Name:
Genie Bost 26-JAN-05

Data Validator/Group Leader:
Keith Doran 26-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
21-JAN-05	Radiochemistry	SOP	Material
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Pu-11-RC Modified	Solid	YANK001
Batch ID:	**Sample Numbers:**		
395359			

Potentially affected work order(s)(SDG): 128423(MSR#05-0053),128452(MSR#04-4170)

Application Issues:

Other

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 128423001, 128423002, 128452001, 1200774143, and 1200774144 have poor resolution due to the matrix of the samples. The batch was reprepped with a larger aliquot in order to meet the detection limits. These larger aliquots result in lower yields and poor resolution.	1. Reporting results.

Originator's Name:
Jessica Downey 21-JAN-05

Data Validator/Group Leader:
Scott Moreland 26-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-4170 GEL Work Order: 128452

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–Liner	Project:	YANK01304
Sample ID:	128452001	Client ID:	YANK001
Matrix:	SS	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	0%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Alphaspec Am241, Cm, Solid–TRU2,ALL2 High Rad (CT)												
Americium–241		30.8	+/–0.943	0.00	+/–3.65	0.0203	pCi/g		RDD 01/24/05	2206	396044	1
Curium–242		0.108	+/–0.0612	0.00	+/–0.0624	0.0244	pCi/g					
Curium–243/244		9.75	+/–0.531	0.021	+/–1.23	0.0624	pCi/g					
Alphaspec Pu, Solid–TRU2,ALL2 High Rad (CT)												
Plutonium–238		13.6	+/–0.831	0.104	+/–1.60	0.243	pCi/g		RDD 01/19/05	1922	395359	4
Plutonium–239/240		6.56	+/–0.572	0.0425	+/–0.872	0.120	pCi/g					
GFPC, Sr90, solid High Rad (CT)												
Strontium–90		12.2	+/–0.162	0.0166	+/–2.82	0.0347	pCi/g		AAK 01/25/05	0350	392873	6
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	8.25	+/–20.9	13.9	+/–20.5	28.1	pCi/g		ADD 01/14/05	0936	392867	7
Americium–241		28.3	+/–15.9	7.41	+/–15.5	15.0	pCi/g					
Barium–133		76.8	+/–10.4	2.59	+/–10.2	5.24	pCi/g					
Bismuth–212	U	–14.7	+/–28.4	21.8	+/–27.8	44.2	pCi/g					
Bismuth–214	U	2.05	+/–5.72	4.49	+/–5.61	9.09	pCi/g					
Cesium–134	U	1.28	+/–4.51	3.50	+/–4.42	7.09	pCi/g					
Cesium–137		750	+/–51.9	2.68	+/–50.9	5.42	pCi/g					
Cobalt–60		2700	+/–159	1.75	+/–156	3.62	pCi/g					
Europium–152		18.2	+/–10.3	5.56	+/–10.1	11.2	pCi/g					
Europium–154	U UI	0.00	+/–9.02	5.85	+/–8.83	12.0	pCi/g					
Europium–155	U	5.00	+/–7.77	4.64	+/–7.61	9.37	pCi/g					
Lead–212	U	0.643	+/–4.13	3.07	+/–4.04	6.19	pCi/g					
Lead–214	U	–6.07	+/–5.72	4.13	+/–5.60	8.34	pCi/g					
Manganese–54	U	1.16	+/–4.36	3.38	+/–4.27	6.83	pCi/g					
Niobium–94	U	–0.0352	+/–3.06	2.37	+/–3.00	4.81	pCi/g					
Potassium–40	U	11.1	+/–15.5	12.8	+/–15.2	26.8	pCi/g					
Radium–226	U	2.05	+/–5.72	4.49	+/–5.61	9.09	pCi/g					
Silver–108m	U	–0.0283	+/–3.29	2.14	+/–3.23	4.33	pCi/g					
Thallium–208	U	2.78	+/–3.11	2.45	+/–3.04	4.97	pCi/g					
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		20100	+/–83.9	18.4	+/–765	37.0	pCi/g		AAK 01/23/05	2031	392874	8
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63		495	+/–10.6	2.96	+/–20.1	6.05	pCi/g		AAK 01/24/05	0624	392875	9

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-Liner
Sample ID: 128452001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Liquid Scint Pu241, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-241		282	+/-15.2	9.29	+/-48.3	18.8	pCi/g		RDD	01/25/05	0749	395360	10
Liquid Scint Tc99, Solid RADII -HTD2,ALL2 (CT)													
Technetium-99	U	0.504	+/-0.825	0.681	+/-0.825	1.39	pCi/g		NXL1	02/01/05	0022	396742	12

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	EPA 905.0 Modified
7	EML HASL 300, 4.5.2.3
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Pu-11-RC Modified
11	DOE EML HASL-300, Pu-11-RC Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	102	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	30	(15%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid High Rad (CT)	99	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	75	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	39	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid RADII -H	35	

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-Liner
Sample ID: 128452001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-1C-01	Project:	YANK01304
Sample ID:	128452002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	5.28%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)													
Americium-241	U	0.00744	+/-0.0386	0.030	+/-0.0386	0.0801	pCi/g		RDD	01/20/05	2001	395131	1
Curium-242	U	0.00878	+/-0.0172	0.00	+/-0.0172	0.0238	pCi/g						
Curium-243/244	U	0.0149	+/-0.0293	0.0174	+/-0.0293	0.0549	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)													
Plutonium-238	U	-2.700E-09	+/-0.0272	0.0228	+/-0.0272	0.0609	pCi/g		RDD	01/19/05	1604	395104	3
Plutonium-239/240	U	0.0339	+/-0.0313	0.0132	+/-0.0315	0.0416	pCi/g						
GFPC, Sr90, solid High Rad (CT)													
Strontium-90		0.0539	+/-0.0116	0.0076	+/-0.0142	0.0159	pCi/g		AAK	01/28/05	0739	396743	5
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)													
Actinium-228	U	4.37	+/-6.92	4.78	+/-6.78	9.65	pCi/g		ADD	01/14/05	0722	392884	7
Americium-241	U	0.629	+/-0.679	0.464	+/-0.665	0.938	pCi/g						
Bismuth-212	U	12.2	+/-13.7	8.30	+/-13.4	16.8	pCi/g						
Bismuth-214	U	1.79	+/-2.78	1.65	+/-2.73	3.33	pCi/g						
Cesium-134		7.82	+/-2.54	1.28	+/-2.49	2.59	pCi/g						
Cesium-137	U	0.549	+/-1.24	0.983	+/-1.22	1.99	pCi/g						
Cobalt-60		572	+/-6.32	0.644	+/-6.19	1.33	pCi/g						
Europium-152		926	+/-8.49	1.63	+/-8.32	3.29	pCi/g						
Europium-154		87.8	+/-6.10	2.17	+/-5.98	4.45	pCi/g						
Europium-155		2.85	+/-2.48	1.20	+/-2.43	2.42	pCi/g						
Lead-212	U	0.362	+/-1.05	0.791	+/-1.03	1.60	pCi/g						
Lead-214	U	0.945	+/-1.54	1.16	+/-1.51	2.34	pCi/g						
Manganese-54	U	-0.0221	+/-1.54	1.21	+/-1.51	2.43	pCi/g						
Niobium-94	U	0.0286	+/-1.12	0.882	+/-1.10	1.78	pCi/g						
Potassium-40	U	7.83	+/-6.81	5.16	+/-6.67	10.7	pCi/g						
Radium-226	U	1.79	+/-2.78	1.65	+/-2.73	3.33	pCi/g						
Silver-108m	U	-0.338	+/-0.848	0.625	+/-0.831	1.27	pCi/g						
Thallium-208	U	-0.496	+/-1.41	0.916	+/-1.39	1.85	pCi/g						
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)													
Tritium		6250	+/-122	8.35	+/-423	16.7	pCi/g		NXL1	01/14/05	2214	392897	8
Laboratory Composite - RADII													
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)													
Carbon-14		5.76	+/-0.418	0.274	+/-0.429	0.556	pCi/g		NXL1	01/21/05	2134	392898	10
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)													

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–1C–01
Sample ID: 128452002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)													
Iron–55		1110	+/–5.92	1.20	+/–43.3	2.43	pCi/g		AAK	01/24/05	1730	392890	11
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)													
Nickel–63		7.00	+/–1.29	0.979	+/–1.32	1.99	pCi/g		AAK	01/22/05	0826	392894	12
Liquid Scint Pu241, Solid–TRU2,ALL2 High Rad (CT)													
Plutonium–241	U	–2.43	+/–2.96	2.53	+/–2.97	5.16	pCi/g		RDD	01/27/05	1643	396213	13
Liquid Scint Tc99, Solid RADII –HTD2,ALL2 (CT)													
Technetium–99	U	0.548	+/–0.826	0.686	+/–0.826	1.39	pCi/g		NXL1	01/24/05	0751	392895	15

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1612	392881
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1038	392880
GL–RAD–A–026	Laboratory sample composite	ADD	01/11/05	1820	392878

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Am–05–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	DOE EML HASL–300, Pu–11–RC Modified
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EML HASL 300, 4.5.2.3
8	EPA 906.0 Modified
9	GL–RAD–A–026
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE EML HASL–300, Pu–11–RC Modified
14	DOE EML HASL–300, Pu–11–RC Modified
15	DOE EML HASL–300, Tc–02–RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–1C–01
Sample ID: 128452002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Americium–243		Alphaspec Am241, Cm, Solid–TRI			57		(25%–125%)				
Plutonium–242		Alphaspec Pu, Solid–TRU2,ALL2			67		(15%–125%)				
Carrier/Tracer Recovery		GFPC, Sr90, solid High Rad (CT)			76		(25%–125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid–HTD2,Al			39						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid–HTD2,Al			90						
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid–TRU2,/			82						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid RADII –I			48						

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-1C-02	Project:	YANK01304
Sample ID:	128452003	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	4.77%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Alphaspec Am241, Cm, Solid-TRU2,ALL2 High Rad (CT)											
Americium-241	U	0.0184	+/-0.0337	0.0239	+/-0.0337	0.0602	pCi/g		RDD 01/19/05	1604	395131 1
Curium-242	U	0.00	+/-0.0149	0.0125	+/-0.0149	0.0397	pCi/g				
Curium-243/244	U	0.0414	+/-0.0469	0.0321	+/-0.0471	0.0767	pCi/g				
Alphaspec Pu, Solid-TRU2,ALL2 High Rad (CT)											
Plutonium-238	U	-4.180E-09	+/-0.0421	0.0354	+/-0.0421	0.0944	pCi/g		RDD 01/19/05	1604	395104 3
Plutonium-239/240	U	0.0175	+/-0.0421	0.0288	+/-0.0421	0.0814	pCi/g				
GFPC, Sr90, solid High Rad (CT)											
Strontium-90		0.0502	+/-0.0106	0.00655	+/-0.0134	0.0138	pCi/g		AAK 01/28/05	0739	396743 5
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)											
Actinium-228	U	0.0776	+/-4.16	3.22	+/-4.08	6.50	pCi/g		ADD 01/14/05	0722	392884 7
Americium-241	U	1.38	+/-3.21	2.20	+/-3.14	4.43	pCi/g				
Bismuth-212	U	2.69	+/-8.52	5.79	+/-8.35	11.7	pCi/g				
Bismuth-214	U	-3.89	+/-1.62	1.19	+/-1.59	2.39	pCi/g				
Cesium-134		4.90	+/-1.92	0.875	+/-1.88	1.77	pCi/g				
Cesium-137	U	-0.785	+/-0.892	0.686	+/-0.874	1.38	pCi/g				
Cobalt-60		518	+/-39.3	0.520	+/-38.5	1.06	pCi/g				
Europium-152		829	+/-53.8	1.36	+/-52.7	2.74	pCi/g				
Europium-154		76.6	+/-9.27	3.49	+/-9.08	7.05	pCi/g				
Europium-155	U	2.28	+/-2.45	1.53	+/-2.40	3.08	pCi/g				
Lead-212	U	0.363	+/-0.973	0.728	+/-0.954	1.47	pCi/g				
Lead-214	U	0.729	+/-1.70	0.942	+/-1.66	1.90	pCi/g				
Manganese-54	U	1.15	+/-0.941	0.843	+/-0.922	1.70	pCi/g				
Niobium-94	U	0.166	+/-0.804	0.628	+/-0.788	1.27	pCi/g				
Potassium-40	U	0.00	+/-6.91	5.40	+/-6.77	11.0	pCi/g				
	UI										
Radium-226	U	-3.89	+/-1.62	1.19	+/-1.59	2.39	pCi/g				
Silver-108m	U	0.250	+/-0.652	0.487	+/-0.639	0.983	pCi/g				
Thallium-208	U	0.679	+/-1.03	0.671	+/-1.01	1.35	pCi/g				
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)											
Tritium		4280	+/-84.3	6.97	+/-289	14.0	pCi/g		NXL1 01/14/05	2221	392897 8
Laboratory Composite - RADII											
Liquid Scint C14, Solid-HTD2,ALL2 High Rad (CT)											
Carbon-14		2.84	+/-0.373	0.273	+/-0.376	0.553	pCi/g		NXL1 01/21/05	2337	392898 10

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–1C–02
Sample ID: 128452003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
High Rad Testing													
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)													
Iron–55		900	+/–6.09	1.56	+/–35.8	3.16	pCi/g		AAK	01/24/05	1931	392890	11
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)													
Nickel–63		5.11	+/–1.24	0.959	+/–1.25	1.95	pCi/g		AAK	01/22/05	0958	392894	12
Liquid Scint Pu241, Solid–TRU2,ALL2 High Rad (CT)													
Plutonium–241	U	0.811	+/–2.80	2.33	+/–2.80	4.76	pCi/g		RDD	01/27/05	1746	396213	13
Liquid Scint Tc99, Solid RADII –HTD2,ALL2 (CT)													
Technetium–99	U	0.219	+/–0.767	0.641	+/–0.767	1.30	pCi/g		NXL1	01/24/05	0957	392895	15

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1612	392881
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1038	392880
GL–RAD–A–026	Laboratory sample composite	ADD	01/11/05	1820	392878

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Am–05–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	DOE EML HASL–300, Pu–11–RC Modified
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EML HASL 300, 4.5.2.3
8	EPA 906.0 Modified
9	GL–RAD–A–026
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE EML HASL–300, Pu–11–RC Modified
14	DOE EML HASL–300, Pu–11–RC Modified
15	DOE EML HASL–300, Tc–02–RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–1C–02
Sample ID: 128452003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Americium–243		Alphaspec Am241, Cm, Solid–TRI			84		(25%–125%)				
Plutonium–242		Alphaspec Pu, Solid–TRU2,ALL2			52		(15%–125%)				
Carrier/Tracer Recovery		GFPC, Sr90, solid High Rad (CT)			71		(25%–125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid–HTD2,Al			35						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid–HTD2,Al			88						
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid–TRU2,/			71						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid RADII –I			51						

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
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h Sample preparation or preservation holding time exceeded.
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Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–1C–03	Project:	YANK01304
Sample ID:	128452004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	12.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	1.07	+/–3.53	2.83	+/–3.46	5.71	pCi/g		ADD 02/07/05	0856	399404	1
Americium–241	U	0.781	+/–1.92	1.32	+/–1.88	2.66	pCi/g					
Bismuth–212	U	3.40	+/–7.87	5.24	+/–7.71	10.6	pCi/g					
Bismuth–214	U	–0.749	+/–1.38	1.03	+/–1.35	2.09	pCi/g					
Cesium–134	U	1.18	+/–1.21	0.782	+/–1.19	1.58	pCi/g					
Cesium–137	U	0.444	+/–0.787	0.600	+/–0.771	1.22	pCi/g					
Cobalt–60		299	+/–18.4	0.428	+/–18.0	0.882	pCi/g					
Europium–152		495	+/–33.8	1.11	+/–33.1	2.24	pCi/g					
Europium–154		39.8	+/–5.25	2.70	+/–5.14	5.47	pCi/g					
Europium–155	U	0.443	+/–1.62	1.13	+/–1.59	2.27	pCi/g					
Lead–212	U	0.718	+/–0.785	0.597	+/–0.769	1.21	pCi/g					
Lead–214	U	1.39	+/–1.42	0.807	+/–1.39	1.63	pCi/g					
Manganese–54	U	0.221	+/–1.02	0.776	+/–1.00	1.57	pCi/g					
Niobium–94	U	–0.032	+/–0.718	0.543	+/–0.703	1.10	pCi/g					
Potassium–40	U	0.00	+/–5.97	2.65	+/–5.85	5.56	pCi/g					
	UI											
Radium–226	U	–0.749	+/–1.38	1.03	+/–1.35	2.09	pCi/g					
Silver–108m	U	0.519	+/–0.656	0.405	+/–0.643	0.819	pCi/g					
Thallium–208	U	0.416	+/–0.889	0.595	+/–0.871	1.20	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		4640	+/–91.1	7.16	+/–305	14.3	pCi/g		NXL1 01/23/05	1130	392919	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		648	+/–14.6	4.29	+/–32.2	8.78	pCi/g		AAK 02/01/05	1157	397064	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	2.53	+/–2.27	1.86	+/–2.28	3.79	pCi/g		AAK 01/23/05	0425	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1029	392915
GL–RAD–A–026	Laboratory sample composite	ADD	01/11/05	1819	392913

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-1C-03
Sample ID: 128452004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	72	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	61	

Notes:
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H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–1C–04	Project:	YANK01304
Sample ID:	128452005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	12.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)											
Actinium–228	U	–0.131	+/–2.59	2.00	+/–2.53	4.05	pCi/g		ADD 02/07/05	0857	399404 1
Americium–241	U	–1.25	+/–1.25	0.851	+/–1.22	1.72	pCi/g				
Bismuth–212	U	–2.77	+/–5.44	3.62	+/–5.33	7.34	pCi/g				
Bismuth–214	U	0.812	+/–1.06	0.736	+/–1.04	1.49	pCi/g				
Cesium–134	U	1.02	+/–0.993	0.577	+/–0.973	1.17	pCi/g				
Cesium–137	U	–0.085	+/–0.537	0.418	+/–0.526	0.849	pCi/g				
Cobalt–60		142	+/–9.20	0.318	+/–9.02	0.662	pCi/g				
Europium–152		243	+/–16.6	0.771	+/–16.2	1.57	pCi/g				
Europium–154		17.6	+/–3.00	1.79	+/–2.94	3.65	pCi/g				
Europium–155	U	–0.129	+/–1.10	0.769	+/–1.08	1.55	pCi/g				
Lead–212	U	0.593	+/–0.731	0.428	+/–0.716	0.867	pCi/g				
Lead–214	U	0.878	+/–0.741	0.565	+/–0.727	1.15	pCi/g				
Manganese–54	U	0.0519	+/–0.708	0.549	+/–0.694	1.12	pCi/g				
Niobium–94	U	–0.362	+/–0.496	0.379	+/–0.486	0.771	pCi/g				
Potassium–40	U	0.00	+/–5.72	2.32	+/–5.61	4.89	pCi/g				
	UI										
Radium–226	U	0.812	+/–1.06	0.736	+/–1.04	1.49	pCi/g				
Silver–108m	U	0.343	+/–0.379	0.288	+/–0.372	0.585	pCi/g				
Thallium–208	U	0.798	+/–0.666	0.418	+/–0.652	0.850	pCi/g				
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)											
Tritium		2050	+/–40.6	4.82	+/–140	9.65	pCi/g		NXL1 01/23/05	1143	392919 2
Laboratory Composite – RADII											
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)											
Iron–55		305	+/–8.28	3.35	+/–15.0	6.81	pCi/g		AAK 02/01/05	1316	397064 4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)											
Nickel–63	U	0.308	+/–2.27	1.90	+/–2.27	3.88	pCi/g		AAK 01/23/05	0526	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1029	392915
GL–RAD–A–026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-1C-04
Sample ID: 128452005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	65	

Notes:
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–1C–05	Project:	YANK01304
Sample ID:	128452006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	11.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)											
Actinium–228	U	0.994	+/–1.70	1.32	+/–1.66	2.71	pCi/g		ADD 02/07/05	0857	399404 1
Americium–241	U	–0.343	+/–0.952	0.625	+/–0.933	1.28	pCi/g				
Bismuth–212	U	0.444	+/–3.44	2.35	+/–3.37	4.82	pCi/g				
Bismuth–214	U	0.418	+/–0.683	0.479	+/–0.670	0.984	pCi/g				
Cesium–134	U	0.322	+/–0.458	0.361	+/–0.449	0.741	pCi/g				
Cesium–137	U	0.238	+/–0.353	0.279	+/–0.346	0.574	pCi/g				
Cobalt–60		60.6	+/–4.17	0.219	+/–4.09	0.466	pCi/g				
Europium–152		107	+/–7.82	0.513	+/–7.66	1.05	pCi/g				
Europium–154		8.20	+/–2.00	1.23	+/–1.96	2.53	pCi/g				
Europium–155	U	0.520	+/–0.695	0.519	+/–0.681	1.06	pCi/g				
Lead–212	U UI	0.00	+/–0.541	0.301	+/–0.530	0.614	pCi/g				
Lead–214	U UI	0.00	+/–0.889	0.388	+/–0.871	0.794	pCi/g				
Manganese–54	U	–0.292	+/–0.461	0.346	+/–0.452	0.711	pCi/g				
Niobium–94	U	–0.134	+/–0.312	0.238	+/–0.306	0.490	pCi/g				
Potassium–40		6.10	+/–3.50	1.66	+/–3.43	3.59	pCi/g				
Radium–226	U	0.418	+/–0.683	0.479	+/–0.670	0.984	pCi/g				
Silver–108m	U	0.0192	+/–0.257	0.188	+/–0.252	0.386	pCi/g				
Thallium–208	U	0.218	+/–0.389	0.273	+/–0.382	0.560	pCi/g				
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)											
Tritium		1350	+/–27.0	3.94	+/–92.1	7.88	pCi/g		NXL1 01/23/05	1203	392919 2
Laboratory Composite – RADII											
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)											
Iron–55		137	+/–5.77	3.00	+/–7.94	6.07	pCi/g		AAK 02/01/05	1520	397064 4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)											
Nickel–63	U	1.86	+/–2.04	1.68	+/–2.04	3.42	pCi/g		AAK 01/23/05	0628	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1029	392915
		ADD	01/11/05	1820	392913

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–1C–05
Sample ID: 128452006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL–RAD–A–026 Laboratory sample composite											

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Fe–1, Modified
6	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	66	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	73	

Notes:
The Qualifiers in this report are defined as follows :

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–2C–01	Project:	YANK01304
Sample ID:	128452007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	11.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)												
Actinium–228	U	–0.0385	+/–1.15	0.872	+/–1.13	1.81	pCi/g		ADD 02/07/05	0857	399404	1
Americium–241	U	0.646	+/–0.627	0.423	+/–0.614	0.873	pCi/g					
Bismuth–212	U	0.959	+/–2.30	1.59	+/–2.26	3.30	pCi/g					
Bismuth–214	U	0.572	+/–0.476	0.360	+/–0.466	0.746	pCi/g					
Cesium–134	U	0.191	+/–0.362	0.247	+/–0.355	0.514	pCi/g					
Cesium–137	U	0.212	+/–0.241	0.192	+/–0.236	0.399	pCi/g					
Cobalt–60		25.3	+/–1.83	0.149	+/–1.79	0.327	pCi/g					
Europium–152		43.2	+/–3.33	0.341	+/–3.26	0.709	pCi/g					
Europium–154		3.27	+/–1.65	0.840	+/–1.62	1.76	pCi/g					
Europium–155	U	–0.0516	+/–0.462	0.333	+/–0.452	0.683	pCi/g					
Lead–212	U	0.388	+/–0.296	0.213	+/–0.290	0.438	pCi/g					
Lead–214	U	0.563	+/–0.437	0.273	+/–0.429	0.565	pCi/g					
Manganese–54	U	–0.242	+/–0.306	0.222	+/–0.300	0.463	pCi/g					
Niobium–94	U	0.00	+/–0.367	0.180	+/–0.360	0.373	pCi/g					
	UI											
Potassium–40		8.60	+/–4.19	1.28	+/–4.11	2.83	pCi/g					
Radium–226	U	0.572	+/–0.476	0.365	+/–0.466	0.756	pCi/g					
Silver–108m	U	0.194	+/–0.174	0.141	+/–0.170	0.292	pCi/g					
Thallium–208	U	0.272	+/–0.323	0.179	+/–0.317	0.373	pCi/g					
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)												
Tritium		550	+/–13.2	2.85	+/–36.0	5.71	pCi/g		NXL1 01/23/05	1235	392919	2
Laboratory Composite – RADII												
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)												
Iron–55		55.0	+/–4.13	2.42	+/–4.67	4.91	pCi/g		AAK 02/01/05	1724	397064	4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)												
Nickel–63	U	0.804	+/–2.03	1.68	+/–2.03	3.44	pCi/g		AAK 01/23/05	0730	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1029	392915
GL–RAD–A–026	Laboratory sample composite	ADD	01/11/05	1820	392913

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-2C-01
Sample ID: 128452007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	67	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	64	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-2C-02	Project:	YANK01304
Sample ID:	128452008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	13.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)											
Actinium-228	U	1.02	+/-1.18	0.718	+/-1.16	1.51	pCi/g		ADD 02/07/05	0858	399404 1
Americium-241	U	0.180	+/-0.544	0.383	+/-0.533	0.797	pCi/g				
Bismuth-212	U	-1.56	+/-2.05	1.28	+/-2.01	2.71	pCi/g				
Bismuth-214		0.925	+/-0.491	0.281	+/-0.481	0.592	pCi/g				
Cesium-134	U	0.0452	+/-0.250	0.197	+/-0.245	0.415	pCi/g				
Cesium-137	U	0.120	+/-0.197	0.160	+/-0.194	0.338	pCi/g				
Cobalt-60		10.7	+/-1.04	0.137	+/-1.02	0.304	pCi/g				
Europium-152		20.7	+/-1.94	0.332	+/-1.90	0.694	pCi/g				
Europium-154		1.65	+/-0.865	0.559	+/-0.848	1.20	pCi/g				
Europium-155	U	0.297	+/-0.519	0.305	+/-0.508	0.632	pCi/g				
Lead-212	U	0.00	+/-0.419	0.223	+/-0.411	0.459	pCi/g				
	UI										
Lead-214	U	0.501	+/-0.417	0.258	+/-0.409	0.538	pCi/g				
Manganese-54	U	-0.248	+/-0.230	0.162	+/-0.226	0.346	pCi/g				
Niobium-94	U	0.176	+/-0.178	0.147	+/-0.175	0.310	pCi/g				
Potassium-40		10.3	+/-3.51	1.19	+/-3.44	2.66	pCi/g				
Radium-226		0.925	+/-0.491	0.281	+/-0.481	0.592	pCi/g				
Silver-108m	U	0.0622	+/-0.149	0.114	+/-0.146	0.241	pCi/g				
Thallium-208	U	0.00	+/-0.405	0.181	+/-0.397	0.379	pCi/g				
	UI										
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)											
Tritium		283	+/-10.2	3.06	+/-21.0	6.13	pCi/g		NXL1 01/23/05	1307	392919 2
Laboratory Composite - RADII											
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)											
Iron-55		23.6	+/-4.14	2.66	+/-4.24	5.39	pCi/g		AAK 02/01/05	1927	397064 4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)											
Nickel-63	U	0.926	+/-2.42	2.02	+/-2.43	4.11	pCi/g		AAK 01/23/05	0831	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
		ADD	01/11/05	1820	392913

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–2C–02
Sample ID: 128452008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL–RAD–A–026 Laboratory sample composite											

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Fe–1, Modified
6	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	58	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002–0000–191–C–2C–03	Project:	YANK01304
Sample ID:	128452009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13–DEC–04		
Receive Date:	06–JAN–05		
Collector:	Client		
Moisture:	13.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid–GAM2,ALL2 High Rad (CT)											
Actinium–228	U	0.679	+/–0.580	0.482	+/–0.568	1.03	pCi/g		ADD 02/07/05	0858	399404 1
Americium–241	U	0.142	+/–0.569	0.367	+/–0.558	0.772	pCi/g				
Bismuth–212	U	0.277	+/–1.11	0.764	+/–1.09	1.66	pCi/g				
Bismuth–214	U	0.348	+/–0.477	0.208	+/–0.468	0.441	pCi/g				
Cesium–134	U	0.081	+/–0.151	0.121	+/–0.148	0.261	pCi/g				
Cesium–137	U	0.00	+/–0.170	0.0861	+/–0.167	0.188	pCi/g				
	UI										
Cobalt–60		3.45	+/–0.524	0.0913	+/–0.514	0.211	pCi/g				
Europium–152		6.20	+/–0.776	0.198	+/–0.761	0.421	pCi/g				
Europium–154	U	0.544	+/–0.425	0.388	+/–0.416	0.851	pCi/g				
Europium–155	U	–0.0526	+/–0.258	0.181	+/–0.253	0.382	pCi/g				
Lead–212	U	0.00	+/–0.251	0.163	+/–0.246	0.337	pCi/g				
	UI										
Lead–214		0.439	+/–0.353	0.128	+/–0.346	0.275	pCi/g				
Manganese–54	U	0.113	+/–0.155	0.125	+/–0.152	0.269	pCi/g				
Niobium–94	U	0.0364	+/–0.095	0.0754	+/–0.0931	0.165	pCi/g				
Potassium–40		6.93	+/–2.52	0.845	+/–2.47	1.97	pCi/g				
Radium–226	U	0.348	+/–0.477	0.184	+/–0.468	0.394	pCi/g				
Silver–108m	U	0.0536	+/–0.0852	0.0689	+/–0.0835	0.148	pCi/g				
Thallium–208	U	0.00	+/–0.214	0.0832	+/–0.209	0.181	pCi/g				
	UI										
LSC, Tritium Dist, Solid–HTD2,ALL2 High Rad (CT)											
Tritium		184	+/–8.29	2.95	+/–14.1	5.90	pCi/g		NXL1 01/23/05	1339	392919 2
Laboratory Composite – RADII											
Liquid Scint Fe55, Solid–HTD2,ALL2 High Rad (CT)											
Iron–55		6.32	+/–4.42	3.00	+/–4.43	6.07	pCi/g		AAK 02/01/05	2131	397064 4
Liquid Scint Ni63, Solid–HTD2,ALL2 High Rad (CT)											
Nickel–63	U	0.365	+/–2.31	1.93	+/–2.31	3.94	pCi/g		AAK 01/23/05	0933	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL–RAD–A–021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	RDD	01/12/05	1029	392915

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–2C–03
Sample ID: 128452009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
GL–RAD–A–026	Laboratory sample composite				ADD	01/11/05	1820	392913			

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Fe–1, Modified
6	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	60	

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-2C-04	Project:	YANK01304
Sample ID:	128452010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	13.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.650	+/-0.653	0.455	+/-0.640	0.977	pCi/g		ADD 02/07/05	0858	399404	1
Americium-241	U	0.0138	+/-0.403	0.199	+/-0.395	0.422	pCi/g					
Bismuth-212	U	1.15	+/-0.982	0.559	+/-0.962	1.25	pCi/g					
Bismuth-214		0.724	+/-0.336	0.110	+/-0.329	0.246	pCi/g					
Cesium-134	U	-0.00427	+/-0.122	0.0917	+/-0.120	0.203	pCi/g					
Cesium-137	U	0.0876	+/-0.123	0.0853	+/-0.120	0.186	pCi/g					
Cobalt-60		1.54	+/-0.331	0.0961	+/-0.324	0.220	pCi/g					
Europium-152		2.62	+/-0.531	0.195	+/-0.521	0.417	pCi/g					
Europium-154	U	-0.218	+/-0.295	0.195	+/-0.289	0.465	pCi/g					
Europium-155	U	0.0678	+/-0.228	0.163	+/-0.224	0.344	pCi/g					
Lead-212		0.848	+/-0.221	0.0914	+/-0.217	0.195	pCi/g					
Lead-214		0.384	+/-0.315	0.130	+/-0.309	0.278	pCi/g					
Manganese-54	U	-0.0648	+/-0.112	0.0764	+/-0.109	0.171	pCi/g					
Niobium-94	U	-0.0656	+/-0.114	0.0675	+/-0.112	0.149	pCi/g					
Potassium-40		9.15	+/-2.63	0.644	+/-2.57	1.56	pCi/g					
Radium-226		0.724	+/-0.336	0.110	+/-0.329	0.246	pCi/g					
Silver-108m	U	-0.0639	+/-0.0813	0.0565	+/-0.0796	0.124	pCi/g					
Thallium-208	U	0.0782	+/-0.160	0.0934	+/-0.157	0.201	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		85.4	+/-6.06	2.85	+/-7.91	5.70	pCi/g		NXL1 01/23/05	1410	392919	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	1.26	+/-3.16	2.18	+/-3.16	4.41	pCi/g		AAK 02/01/05	2335	397064	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.0646	+/-2.13	1.79	+/-2.13	3.66	pCi/g		AAK 01/23/05	1035	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-2C-04
Sample ID: 128452010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	69	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	65	

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-2C-05	Project:	YANK01304
Sample ID:	128452011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.764	+/-0.596	0.437	+/-0.584	0.942	pCi/g		ADD 02/07/05	0859	399404	1
Americium-241	U	-0.086	+/-0.511	0.359	+/-0.500	0.770	pCi/g					
Bismuth-212	U	1.00	+/-0.848	0.737	+/-0.831	1.61	pCi/g					
Bismuth-214	U	0.00	+/-0.330	0.209	+/-0.324	0.444	pCi/g					
	UI											
Cesium-134	U	0.134	+/-0.116	0.102	+/-0.114	0.224	pCi/g					
Cesium-137	U	0.164	+/-0.153	0.0879	+/-0.150	0.192	pCi/g					
Cobalt-60		1.56	+/-0.302	0.0769	+/-0.296	0.183	pCi/g					
Europium-152		0.980	+/-0.432	0.166	+/-0.424	0.359	pCi/g					
Europium-154	U	-0.083	+/-0.286	0.215	+/-0.280	0.507	pCi/g					
Europium-155	U	-0.148	+/-0.206	0.139	+/-0.202	0.299	pCi/g					
Lead-212		0.761	+/-0.313	0.0874	+/-0.307	0.188	pCi/g					
Lead-214		0.686	+/-0.352	0.127	+/-0.345	0.275	pCi/g					
Manganese-54	U	-0.00249	+/-0.107	0.0819	+/-0.105	0.183	pCi/g					
Niobium-94	U	-0.0974	+/-0.0922	0.0605	+/-0.0903	0.135	pCi/g					
Potassium-40		8.95	+/-2.47	0.652	+/-2.42	1.59	pCi/g					
Radium-226		0.498	+/-0.330	0.147	+/-0.324	0.320	pCi/g					
Silver-108m	U	0.00249	+/-0.0779	0.0606	+/-0.0763	0.132	pCi/g					
Thallium-208		0.260	+/-0.153	0.0618	+/-0.150	0.139	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		31.7	+/-4.64	2.90	+/-5.04	5.80	pCi/g		NXL1 01/23/05	1442	392919	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	-0.314	+/-4.04	2.79	+/-4.04	5.65	pCi/g		AAK 02/02/05	0302	397064	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	0.160	+/-1.93	1.62	+/-1.93	3.30	pCi/g		AAK 01/23/05	1136	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–2C–05
Sample ID: 128452011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Fe–1, Modified
6	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	71	

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-2C-06	Project:	YANK01304
Sample ID:	128452012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	12.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.562	+/-0.709	0.469	+/-0.694	1.02	pCi/g		ADD 02/07/05	0859	399404	1
Americium-241	U	-0.0227	+/-0.102	0.0627	+/-0.100	0.134	pCi/g					
Bismuth-212	U	0.918	+/-1.04	0.896	+/-1.02	1.96	pCi/g					
Bismuth-214		0.656	+/-0.307	0.147	+/-0.301	0.327	pCi/g					
Cesium-134	U	0.127	+/-0.165	0.128	+/-0.161	0.282	pCi/g					
Cesium-137	U	0.125	+/-0.144	0.088	+/-0.141	0.196	pCi/g					
Cobalt-60		1.09	+/-0.319	0.0855	+/-0.312	0.206	pCi/g					
Europium-152		0.707	+/-0.391	0.176	+/-0.384	0.384	pCi/g					
Europium-154	U	0.149	+/-0.286	0.250	+/-0.281	0.593	pCi/g					
Europium-155	U	0.208	+/-0.220	0.134	+/-0.216	0.284	pCi/g					
Lead-212		0.488	+/-0.224	0.0979	+/-0.219	0.210	pCi/g					
Lead-214		0.448	+/-0.242	0.141	+/-0.237	0.304	pCi/g					
Manganese-54	U	0.0173	+/-0.122	0.0975	+/-0.120	0.219	pCi/g					
Niobium-94	U	0.044	+/-0.112	0.092	+/-0.110	0.202	pCi/g					
Potassium-40		10.1	+/-3.14	0.822	+/-3.08	1.99	pCi/g					
Radium-226		0.656	+/-0.307	0.147	+/-0.301	0.327	pCi/g					
Silver-108m	U	0.0314	+/-0.080	0.0626	+/-0.0784	0.138	pCi/g					
Thallium-208	U	0.117	+/-0.227	0.118	+/-0.223	0.255	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		40.4	+/-5.01	2.97	+/-5.61	5.95	pCi/g		NXL1 01/23/05	1514	392919	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	0.0791	+/-3.55	2.45	+/-3.55	4.97	pCi/g		AAK 02/02/05	0506	397064	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-1.39	+/-2.72	2.31	+/-2.72	4.71	pCi/g		AAK 01/23/05	1238	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-2C-06
Sample ID: 128452012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	70	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	52	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-3C-01	Project:	YANK01304
Sample ID:	128452013	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
High Rad Testing												
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)												
Actinium-228	U	0.0905	+/-0.416	0.274	+/-0.408	0.587	pCi/g		ADD 02/07/05	0900	399404	1
Americium-241	U	-0.261	+/-0.314	0.204	+/-0.308	0.434	pCi/g					
Bismuth-212	U	0.418	+/-0.558	0.466	+/-0.546	1.01	pCi/g					
Bismuth-214	U	0.00	+/-0.275	0.162	+/-0.269	0.339	pCi/g					
	UI											
Cesium-134	U	0.0386	+/-0.0774	0.0636	+/-0.0759	0.138	pCi/g					
Cesium-137		0.157	+/-0.130	0.0454	+/-0.127	0.0997	pCi/g					
Cobalt-60		1.41	+/-0.254	0.0573	+/-0.249	0.130	pCi/g					
Europium-152	U	0.0827	+/-0.185	0.143	+/-0.181	0.303	pCi/g					
Europium-154	U	0.160	+/-0.225	0.197	+/-0.220	0.435	pCi/g					
Europium-155	U	0.0933	+/-0.198	0.143	+/-0.194	0.300	pCi/g					
Lead-212		0.510	+/-0.176	0.0859	+/-0.172	0.180	pCi/g					
Lead-214		0.497	+/-0.229	0.0872	+/-0.224	0.186	pCi/g					
Manganese-54	U	-0.00268	+/-0.0799	0.0621	+/-0.0783	0.135	pCi/g					
Niobium-94	U	0.061	+/-0.0667	0.051	+/-0.0653	0.110	pCi/g					
Potassium-40		7.92	+/-1.75	0.387	+/-1.71	0.930	pCi/g					
Radium-226		0.606	+/-0.275	0.107	+/-0.269	0.229	pCi/g					
Silver-108m	U	0.00521	+/-0.0531	0.0402	+/-0.0521	0.0868	pCi/g					
Thallium-208	U	0.116	+/-0.105	0.0739	+/-0.103	0.156	pCi/g					
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)												
Tritium		28.8	+/-4.37	2.76	+/-4.68	5.52	pCi/g		NXL1 01/23/05	1546	392919	2
Laboratory Composite - RADII												
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)												
Iron-55	U	2.08	+/-3.87	2.65	+/-3.87	5.36	pCi/g		AAK 02/02/05	0710	397064	4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)												
Nickel-63	U	-0.993	+/-2.28	1.93	+/-2.28	3.95	pCi/g		AAK 01/23/05	1340	392918	6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-3C-01
Sample ID: 128452013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	71	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	61	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-3C-02	Project:	YANK01304
Sample ID:	128452014	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	13.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)											
Actinium-228		0.949	+/-0.447	0.173	+/-0.438	0.388	pCi/g		ADD 02/07/05	0901	399404 1
Americium-241	U	0.0942	+/-0.207	0.151	+/-0.203	0.320	pCi/g				
Bismuth-212	U	0.137	+/-0.606	0.476	+/-0.594	1.03	pCi/g				
Bismuth-214		0.531	+/-0.221	0.110	+/-0.217	0.237	pCi/g				
Cesium-134	U	-0.00608	+/-0.093	0.0606	+/-0.0911	0.134	pCi/g				
Cesium-137		0.129	+/-0.077	0.0567	+/-0.0755	0.123	pCi/g				
Cobalt-60		0.276	+/-0.156	0.0664	+/-0.153	0.150	pCi/g				
Europium-152	U	0.188	+/-0.183	0.147	+/-0.179	0.313	pCi/g				
Europium-154	U	0.100	+/-0.259	0.213	+/-0.254	0.472	pCi/g				
Europium-155	U	-0.0952	+/-0.182	0.124	+/-0.178	0.264	pCi/g				
Lead-212		0.550	+/-0.214	0.0917	+/-0.210	0.192	pCi/g				
Lead-214		0.389	+/-0.267	0.0907	+/-0.262	0.195	pCi/g				
Manganese-54	U	0.0515	+/-0.0771	0.0635	+/-0.0756	0.139	pCi/g				
Niobium-94	U	-0.0358	+/-0.0687	0.0497	+/-0.0673	0.108	pCi/g				
Potassium-40		9.00	+/-2.13	0.450	+/-2.09	1.07	pCi/g				
Radium-226		0.531	+/-0.221	0.110	+/-0.217	0.237	pCi/g				
Silver-108m	U	-0.0363	+/-0.0684	0.0482	+/-0.0671	0.104	pCi/g				
Thallium-208	U	0.029	+/-0.108	0.0562	+/-0.106	0.122	pCi/g				
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)											
Tritium		32.4	+/-4.81	3.03	+/-5.27	6.05	pCi/g		NXL1 01/23/05	1618	392919 2
Laboratory Composite - RADII											
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)											
Iron-55		7.30	+/-3.75	2.53	+/-3.77	5.13	pCi/g		AAK 02/02/05	0913	397064 4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)											
Nickel-63	U	0.553	+/-2.05	1.71	+/-2.05	3.48	pCi/g		AAK 01/23/05	1441	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002-0000-191-C-3C-02
Sample ID: 128452014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL-RAD-A-026
4	DOE RESL Fe-1, Modified
5	DOE RESL Fe-1, Modified
6	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-HTD2,Al	68	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	71	

Notes:
The Qualifiers in this report are defined as follows :

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID:	3002-0000-191-C-3C-03	Project:	YANK01304
Sample ID:	128452015	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	06-JAN-05		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
High Rad Testing											
Gammaspec, Gamma, Solid-GAM2,ALL2 High Rad (CT)											
Actinium-228	U	0.907	+/-0.823	0.582	+/-0.807	1.28	pCi/g		ADD 02/07/05	0901	399404 1
Americium-241	U	-0.0122	+/-0.206	0.140	+/-0.202	0.294	pCi/g				
Bismuth-212	U	1.47	+/-1.33	1.14	+/-1.30	2.49	pCi/g				
Bismuth-214	U	0.156	+/-0.456	0.217	+/-0.447	0.477	pCi/g				
Cesium-134	U	0.0385	+/-0.167	0.136	+/-0.163	0.305	pCi/g				
Cesium-137		0.297	+/-0.273	0.101	+/-0.268	0.228	pCi/g				
Cobalt-60		0.367	+/-0.340	0.114	+/-0.333	0.275	pCi/g				
Europium-152	U	0.443	+/-0.329	0.287	+/-0.323	0.613	pCi/g				
Europium-154	U	-0.105	+/-0.361	0.260	+/-0.354	0.643	pCi/g				
Europium-155	U	0.049	+/-0.289	0.202	+/-0.283	0.425	pCi/g				
Lead-212	U	0.00	+/-0.360	0.215	+/-0.352	0.448	pCi/g				
	UI										
Lead-214	U	0.336	+/-0.289	0.236	+/-0.283	0.501	pCi/g				
Manganese-54	U	0.0982	+/-0.178	0.136	+/-0.175	0.305	pCi/g				
Niobium-94	U	0.0102	+/-0.137	0.104	+/-0.134	0.230	pCi/g				
Potassium-40		4.64	+/-2.85	1.00	+/-2.79	2.47	pCi/g				
Radium-226	U	0.156	+/-0.456	0.274	+/-0.447	0.591	pCi/g				
Silver-108m	U	-0.0605	+/-0.113	0.0793	+/-0.111	0.175	pCi/g				
Thallium-208	U	0.255	+/-0.234	0.166	+/-0.229	0.355	pCi/g				
LSC, Tritium Dist, Solid-HTD2,ALL2 High Rad (CT)											
Tritium		35.2	+/-4.60	2.78	+/-5.04	5.56	pCi/g		NXL1 01/23/05	1650	392919 2
Laboratory Composite - RADII											
Liquid Scint Fe55, Solid-HTD2,ALL2 High Rad (CT)											
Iron-55	U	4.48	+/-4.39	3.00	+/-4.40	6.07	pCi/g		AAK 02/02/05	1117	397064 4
Liquid Scint Ni63, Solid-HTD2,ALL2 High Rad (CT)											
Nickel-63	U	1.38	+/-2.23	1.84	+/-2.23	3.76	pCi/g		AAK 01/23/05	1543	392918 6

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	RDD	01/12/05	1614	392916
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	RDD	01/12/05	1029	392915
GL-RAD-A-026	Laboratory sample composite	ADD	01/11/05	1820	392913

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 8, 2005

Client Sample ID: 3002–0000–191–C–3C–03
Sample ID: 128452015

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 906.0 Modified
3	GL–RAD–A–026
4	DOE RESL Fe–1, Modified
5	DOE RESL Fe–1, Modified
6	DOE RESL Ni–1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid–HTD2,Al	67	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	66	

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 8, 2005

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392867										
QC1200768413 128452001 DUP										
Actinium-228	U	8.25	U	4.43	pCi/g	60		(0% - 20%)	ADD	01/19/05 06:43
	Uncert:	+/-20.9		+/-20.1						
	TPU:	+/-20.5		+/-19.7						
Americium-241		28.3		29.4	pCi/g	4		(0% - 20%)		
	Uncert:	+/-15.9		+/-4.80						
	TPU:	+/-15.5		+/-4.70						
Barium-133		76.8		78.9	pCi/g	3		(0% - 20%)		
	Uncert:	+/-10.4		+/-6.09						
	TPU:	+/-10.2		+/-5.97						
Bismuth-212	U	-14.7	U	0.596	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-28.4		+/-30.9						
	TPU:	+/-27.8		+/-30.3						
Bismuth-214	U	2.05	U	1.94	pCi/g	6		(0% - 20%)		
	Uncert:	+/-5.72		+/-6.12						
	TPU:	+/-5.61		+/-6.00						
Cesium-134	U	1.28	U	0.0921	pCi/g	173		(0% - 100%)		
	Uncert:	+/-4.51		+/-4.89						
	TPU:	+/-4.42		+/-4.79						
Cesium-137		750		810	pCi/g	8		(0% - 20%)		
	Uncert:	+/-51.9		+/-12.1						
	TPU:	+/-50.9		+/-11.9						
Cobalt-60		2700		2770	pCi/g	2		(0% - 20%)		
	Uncert:	+/-159		+/-24.1						
	TPU:	+/-156		+/-23.7						
Europium-152		18.2		11.9	pCi/g	42		(0% - 100%)		
	Uncert:	+/-10.3		+/-9.43						
	TPU:	+/-10.1		+/-9.24						
Europium-154	UUI	0.00	U	9.49	pCi/g	*		(0% - 100%)		
	Uncert:	+/-9.02		+/-9.72						
	TPU:	+/-8.83		+/-9.52						
Europium-155	U	5.00	U	1.66	pCi/g	100		(0% - 100%)		
	Uncert:	+/-7.77		+/-4.88						
	TPU:	+/-7.61		+/-4.78						
Lead-212	U	0.643	U	2.86	pCi/g	127		(0% - 20%)		
	Uncert:	+/-4.13		+/-3.68						
	TPU:	+/-4.04		+/-3.60						
Lead-214	U	-6.07	U	3.79	pCi/g	N/A				
	Uncert:	+/-5.72		+/-5.11						
	TPU:	+/-5.60		+/-5.00						
Manganese-54	U	1.16	U	1.87	pCi/g	47		(0% - 100%)		
	Uncert:	+/-4.36		+/-4.88						
	TPU:	+/-4.27		+/-4.78						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392867										
Niobium-94	U	-0.0352	U	-0.412	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.06		+/-3.37						
	TPU:	+/-3.00		+/-3.30						
Potassium-40	U	11.1	U	-1.72	pCi/g	N/A		(0%-20%)		
	Uncert:	+/-15.5		+/-15.5						
	TPU:	+/-15.2		+/-15.2						
Radium-226	U	2.05	U	1.94	pCi/g	6		(0% - 100%)		
	Uncert:	+/-5.72		+/-6.12						
	TPU:	+/-5.61		+/-6.00						
Silver-108m	U	-0.0283	U	0.870	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-3.29		+/-3.28						
	TPU:	+/-3.23		+/-3.21						
Thallium-208	U	2.78	U	-0.707	pCi/g	N/A				
	Uncert:	+/-3.11		+/-3.62						
	TPU:	+/-3.04		+/-3.55						
QC1200768414 LCS										
Actinium-228			U	2.75	pCi/g					01/14/05 07:28
	Uncert:			+/-3.13						
	TPU:			+/-3.06						
Americium-241	46.8			49.4	pCi/g		106	(75%-125%)		
	Uncert:			+/-9.74						
	TPU:			+/-9.54						
Barium-133				1.71	pCi/g					
	Uncert:			+/-1.44						
	TPU:			+/-1.41						
Bismuth-212			U	-0.89	pCi/g					
	Uncert:			+/-6.19						
	TPU:			+/-6.07						
Bismuth-214			U	-0.178	pCi/g					
	Uncert:			+/-1.68						
	TPU:			+/-1.65						
Cesium-134			U	0.129	pCi/g					
	Uncert:			+/-0.815						
	TPU:			+/-0.799						
Cesium-137	18.2			16.5	pCi/g		90	(75%-125%)		
	Uncert:			+/-3.20						
	TPU:			+/-3.14						
Cobalt-60	26.5			25.0	pCi/g		94	(75%-125%)		
	Uncert:			+/-3.53						
	TPU:			+/-3.46						
Europium-152			U	1.73	pCi/g					
	Uncert:			+/-1.92						
	TPU:			+/-1.88						
Europium-154			U	1.15	pCi/g					
	Uncert:			+/-1.59						
	TPU:			+/-1.56						
Europium-155			U	1.59	pCi/g					
	Uncert:			+/-2.06						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392867										
	TPU:			+/-2.02						
Lead-212			U	1.36	pCi/g					
	Uncert:			+/-1.05						
	TPU:			+/-1.03						
Lead-214			U	1.36	pCi/g					
	Uncert:			+/-1.85						
	TPU:			+/-1.82						
Manganese-54			U	-0.313	pCi/g					
	Uncert:			+/-0.716						
	TPU:			+/-0.702						
Niobium-94			U	-0.998	pCi/g					
	Uncert:			+/-0.762						
	TPU:			+/-0.747						
Potassium-40			U	4.24	pCi/g					
	Uncert:			+/-6.57						
	TPU:			+/-6.44						
Radium-226			U	-0.178	pCi/g			(75%-125%)		
	Uncert:			+/-1.68						
	TPU:			+/-1.65						
Silver-108m			U	0.254	pCi/g					
	Uncert:			+/-0.706						
	TPU:			+/-0.692						
Thallium-208			U	1.04	pCi/g					
	Uncert:			+/-0.876						
	TPU:			+/-0.859						
QC1200768412 MB										
Actinium-228			U	0.133	pCi/g					01/14/05 09:36
	Uncert:			+/-0.911						
	TPU:			+/-0.893						
Americium-241			U	0.0914	pCi/g					
	Uncert:			+/-1.25						
	TPU:			+/-1.22						
Barium-133			U	-0.0191	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.301						
Bismuth-212			U	0.193	pCi/g					
	Uncert:			+/-1.82						
	TPU:			+/-1.78						
Bismuth-214			U	0.328	pCi/g					
	Uncert:			+/-0.925						
	TPU:			+/-0.906						
Cesium-134			U	-0.0708	pCi/g					
	Uncert:			+/-0.251						
	TPU:			+/-0.246						
Cesium-137			U	-0.0274	pCi/g					
	Uncert:			+/-0.205						
	TPU:			+/-0.201						
Cobalt-60			U	-0.0744	pCi/g					

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392867										
	Uncert:			+/-0.344						
	TPU:			+/-0.337						
Europium-152			U	-0.179	pCi/g					
	Uncert:			+/-0.623						
	TPU:			+/-0.611						
Europium-154			U	-0.0497	pCi/g					
	Uncert:			+/-0.573						
	TPU:			+/-0.561						
Europium-155			U	-0.137	pCi/g					
	Uncert:			+/-0.710						
	TPU:			+/-0.696						
Lead-212			UUI	0.00	pCi/g					
	Uncert:			+/-0.417						
	TPU:			+/-0.409						
Lead-214			U	0.026	pCi/g					
	Uncert:			+/-0.648						
	TPU:			+/-0.636						
Manganese-54			U	0.0991	pCi/g					
	Uncert:			+/-0.195						
	TPU:			+/-0.191						
Niobium-94			U	0.226	pCi/g					
	Uncert:			+/-0.239						
	TPU:			+/-0.234						
Potassium-40			U	4.06	pCi/g					
	Uncert:			+/-2.81						
	TPU:			+/-2.75						
Radium-226			U	0.328	pCi/g					
	Uncert:			+/-0.925						
	TPU:			+/-0.906						
Silver-108m			U	-0.0449	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.247						
Thallium-208			U	-0.115	pCi/g					
	Uncert:			+/-0.312						
	TPU:			+/-0.306						
Batch 392873										
QC1200768430 128423002 DUP										
Strontium-90		0.614		0.890	pCi/g	37*		(0% - 20%)	AAK	01/26/05 05:23
	Uncert:	+/-0.0423		+/-0.0454						
	TPU:	+/-0.145		+/-0.212						
QC1200768432 LCS										
Strontium-90	4.90			4.05	pCi/g		83	(75%-125%)		01/24/05 20:27
	Uncert:			+/-0.279						
	TPU:			+/-0.993						
QC1200768429 MB										
Strontium-90			U	-0.0421	pCi/g					01/25/05 03:50
	Uncert:			+/-0.0277						
	TPU:			+/-0.0299						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392873										
QC1200768431 128423002 MS										
Strontium-90	7.21	0.614		7.70	pCi/g		98	(75%-125%)		01/24/05 18:19
	Uncert:	+/-0.0423		+/-0.632						
	TPU:	+/-0.145		+/-3.30						
Batch 392874										
QC1200768434 128423001 DUP										
Iron-55		18600		19900	pCi/g	6		(0% - 20%)	AAK	01/24/05 00:33
	Uncert:	+/-91.5		+/-81.8						
	TPU:	+/-715		+/-758						
QC1200768436 LCS										
Iron-55	4130			4150	pCi/g		100	(75%-125%)		01/24/05 03:57
	Uncert:			+/-62.4						
	TPU:			+/-171						
QC1200768433 MB										
Iron-55			U	-78.7	pCi/g					01/23/05 22:32
	Uncert:			+/-33.3						
	TPU:			+/-33.4						
QC1200768435 128423001 MS										
Iron-55	4330	18600		23300	pCi/g		108	(75%-125%)		01/24/05 02:34
	Uncert:	+/-91.5		+/-87.8						
	TPU:	+/-715		+/-887						
Batch 392875										
QC1200768438 128452001 DUP										
Nickel-63		495		566	pCi/g	14		(0% - 20%)	AAK	01/24/05 09:17
	Uncert:	+/-10.6		+/-12.1						
	TPU:	+/-20.1		+/-23.0						
QC1200768440 LCS										
Nickel-63	246			203	pCi/g		82	(75%-125%)		01/24/05 11:28
	Uncert:			+/-4.76						
	TPU:			+/-8.48						
QC1200768437 MB										
Nickel-63			U	-2.16	pCi/g					01/24/05 08:28
	Uncert:			+/-1.73						
	TPU:			+/-1.73						
QC1200768439 128452001 MS										
Nickel-63	256	495		782	pCi/g		112	(75%-125%)		01/24/05 09:53
	Uncert:	+/-10.6		+/-16.4						
	TPU:	+/-20.1		+/-31.6						
Batch 392884										
QC1200768452 128452002 DUP										
Actinium-228	U	4.37	U	2.99	pCi/g	38*			ADD	01/14/05 09:38
	Uncert:	+/-6.92		+/-5.42						
	TPU:	+/-6.78		+/-5.31						
Americium-241	U	0.629	U	-0.535	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.679		+/-2.84						
	TPU:	+/-0.665		+/-2.78						
Bismuth-212	U	12.2	U	-4.81	pCi/g	N/A				
	Uncert:	+/-13.7		+/-11.1						
	TPU:	+/-13.4		+/-10.9						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch 392884											
Bismuth-214	U	1.79	U	2.16	pCi/g	19		(0% - 20%)			
	Uncert:	+/-2.78		+/-2.15							
	TPU:	+/-2.73		+/-2.10							
Cesium-134		7.82		7.99	pCi/g	2		(0% - 100%)			
	Uncert:	+/-2.54		+/-2.47							
	TPU:	+/-2.49		+/-2.42							
Cesium-137	U	0.549	U	-0.121	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-1.24		+/-1.13							
	TPU:	+/-1.22		+/-1.11							
Cobalt-60		572		593	pCi/g	4		(0% - 20%)			
	Uncert:	+/-6.32		+/-33.7							
	TPU:	+/-6.19		+/-33.0							
Europium-152		926		889	pCi/g	4		(0% - 20%)			
	Uncert:	+/-8.49		+/-60.5							
	TPU:	+/-8.32		+/-59.3							
Europium-154		87.8		91.7	pCi/g	4		(0% - 20%)			
	Uncert:	+/-6.10		+/-10.1							
	TPU:	+/-5.98		+/-9.90							
Europium-155		2.85	U	1.98	pCi/g	36		(0% - 100%)			
	Uncert:	+/-2.48		+/-2.88							
	TPU:	+/-2.43		+/-2.82							
Lead-212	U	0.362	U	-0.386	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-1.05		+/-1.10							
	TPU:	+/-1.03		+/-1.07							
Lead-214	U	0.945	U	1.77	pCi/g	61		(0% - 20%)			
	Uncert:	+/-1.54		+/-1.51							
	TPU:	+/-1.51		+/-1.48							
Manganese-54	U	-0.0221	U	-0.0679	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-1.54		+/-1.42							
	TPU:	+/-1.51		+/-1.39							
Niobium-94	U	0.0286	U	0.824	pCi/g	187*		(0% - 100%)			
	Uncert:	+/-1.12		+/-1.03							
	TPU:	+/-1.10		+/-1.01							
Potassium-40	U	7.83	UUI	0.00	pCi/g	0*		(0%-20%)			
	Uncert:	+/-6.81		+/-7.73							
	TPU:	+/-6.67		+/-7.57							
Radium-226	U	1.79	U	2.16	pCi/g	19		(0% - 100%)			
	Uncert:	+/-2.78		+/-2.15							
	TPU:	+/-2.73		+/-2.10							
Silver-108m	U	-0.338	U	-0.0839	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.848		+/-0.750							
	TPU:	+/-0.831		+/-0.735							
Thallium-208	U	-0.496	U	1.42	pCi/g	N/A					
	Uncert:	+/-1.41		+/-1.23							
	TPU:	+/-1.39		+/-1.21							
QC1200768453 LCS											
Actinium-228			U	-1.33	pCi/g					01/14/05	08:34
	Uncert:			+/-5.31							

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392884										
	TPU:			+/-5.20						
Americium-241	234			212	pCi/g		91	(75%-125%)		
	Uncert:			+/-17.1						
	TPU:			+/-16.8						
Bismuth-212			U	5.71	pCi/g					
	Uncert:			+/-8.90						
	TPU:			+/-8.73						
Bismuth-214			U	1.04	pCi/g					
	Uncert:			+/-1.92						
	TPU:			+/-1.88						
Cesium-134			U	0.0969	pCi/g					
	Uncert:			+/-1.28						
	TPU:			+/-1.25						
Cesium-137	91.2			90.1	pCi/g		99	(75%-125%)		
	Uncert:			+/-9.27						
	TPU:			+/-9.08						
Cobalt-60	133			126	pCi/g		95	(75%-125%)		
	Uncert:			+/-8.99						
	TPU:			+/-8.81						
Europium-152			U	-0.472	pCi/g					
	Uncert:			+/-2.09						
	TPU:			+/-2.05						
Europium-154			U	-1.74	pCi/g					
	Uncert:			+/-2.35						
	TPU:			+/-2.30						
Europium-155			U	-1.72	pCi/g					
	Uncert:			+/-1.76						
	TPU:			+/-1.72						
Lead-212			U	0.442	pCi/g					
	Uncert:			+/-0.974						
	TPU:			+/-0.954						
Lead-214			U	0.473	pCi/g					
	Uncert:			+/-1.64						
	TPU:			+/-1.60						
Manganese-54			U	0.111	pCi/g					
	Uncert:			+/-1.20						
	TPU:			+/-1.17						
Niobium-94			U	0.386	pCi/g					
	Uncert:			+/-0.944						
	TPU:			+/-0.926						
Potassium-40			U	8.82	pCi/g					
	Uncert:			+/-8.14						
	TPU:			+/-7.98						
Radium-226			U	1.04	pCi/g			(75%-125%)		
	Uncert:			+/-1.92						
	TPU:			+/-1.88						
Silver-108m			U	-0.837	pCi/g					
	Uncert:			+/-0.897						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392884										
	TPU:			+/-0.879						
Thallium-208			U	-0.894	pCi/g					
	Uncert:			+/-1.03						
	TPU:			+/-1.01						
QC1200768451 MB										
Actinium-228			U	0.0703	pCi/g					01/14/05 09:38
	Uncert:			+/-0.303						
	TPU:			+/-0.297						
Americium-241			U	0.0589	pCi/g					
	Uncert:			+/-0.198						
	TPU:			+/-0.194						
Bismuth-212			U	0.596	pCi/g					
	Uncert:			+/-0.325						
	TPU:			+/-0.319						
Bismuth-214			U	0.0534	pCi/g					
	Uncert:			+/-0.136						
	TPU:			+/-0.134						
Cesium-134			U	0.016	pCi/g					
	Uncert:			+/-0.0757						
	TPU:			+/-0.0742						
Cesium-137			U	0.0399	pCi/g					
	Uncert:			+/-0.0706						
	TPU:			+/-0.0692						
Cobalt-60			U	0.0291	pCi/g					
	Uncert:			+/-0.0905						
	TPU:			+/-0.0887						
Europium-152			U	-0.0205	pCi/g					
	Uncert:			+/-0.180						
	TPU:			+/-0.176						
Europium-154			U	-0.136	pCi/g					
	Uncert:			+/-0.216						
	TPU:			+/-0.212						
Europium-155			U	-0.0149	pCi/g					
	Uncert:			+/-0.128						
	TPU:			+/-0.125						
Lead-212			U	0.0228	pCi/g					
	Uncert:			+/-0.146						
	TPU:			+/-0.143						
Lead-214			U	0.191	pCi/g					
	Uncert:			+/-0.162						
	TPU:			+/-0.159						
Manganese-54			U	-0.0215	pCi/g					
	Uncert:			+/-0.0606						
	TPU:			+/-0.0593						
Niobium-94			U	0.0036	pCi/g					
	Uncert:			+/-0.0653						
	TPU:			+/-0.064						
Potassium-40			U	0.385	pCi/g					

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392884										
	Uncert:			+/-1.04						
	TPU:			+/-1.02						
Radium-226			U	0.0534	pCi/g					
	Uncert:			+/-0.136						
	TPU:			+/-0.134						
Silver-108m			U	-0.0513	pCi/g					
	Uncert:			+/-0.0556						
	TPU:			+/-0.0544						
Thallium-208			U	0.0606	pCi/g					
	Uncert:			+/-0.0795						
	TPU:			+/-0.0779						
Batch 392890										
QC1200768477 128423004 DUP										
Iron-55		808		812	pCi/g	1		(0% - 20%)	AAK	01/24/05 23:33
	Uncert:	+/-4.96		+/-5.47						
	TPU:	+/-31.4		+/-32.1						
QC1200768479 LCS										
Iron-55	390			406	pCi/g		104	(75%-125%)		01/25/05 03:35
	Uncert:			+/-4.75						
	TPU:			+/-16.5						
QC1200768476 MB										
Iron-55			U	-0.157	pCi/g					01/24/05 21:32
	Uncert:			+/-3.54						
	TPU:			+/-3.54						
QC1200768478 128423004 MS										
Iron-55	1150	808		2050	pCi/g		108	(75%-125%)		01/25/05 01:34
	Uncert:	+/-4.96		+/-13.1						
	TPU:	+/-31.4		+/-80.6						
Batch 392894										
QC1200768488 128423004 DUP										
Nickel-63		3.18		3.40	pCi/g	7		(0% - 100%)	AAK	01/22/05 13:52
	Uncert:	+/-0.855		+/-1.03						
	TPU:	+/-0.862		+/-1.03						
QC1200768490 LCS										
Nickel-63	116			118	pCi/g		102	(75%-125%)		01/22/05 16:56
	Uncert:			+/-3.09						
	TPU:			+/-5.12						
QC1200768487 MB										
Nickel-63			U	1.24	pCi/g					01/22/05 12:19
	Uncert:			+/-1.24						
	TPU:			+/-1.24						
QC1200768489 128423004 MS										
Nickel-63	333	3.18		289	pCi/g		86	(75%-125%)		01/22/05 15:24
	Uncert:	+/-0.855		+/-6.92						
	TPU:	+/-0.862		+/-12.1						
Batch 392895										
QC1200768496 128452002 DUP										
Technetium-99	U	0.548	U	-0.0607	pCi/g	N/A		(0% - 100%)	NXL1	01/24/05 15:51

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392895										
	Uncert:	+/-0.826		+/-0.791						
	TPU:	+/-0.826		+/-0.791						
QC1200768498 LCS										
Technetium-99	63.9			63.4	pCi/g		99	(75%-125%)		01/24/05 18:05
	Uncert:			+/-1.38						
	TPU:			+/-2.01						
QC1200768495 MB										
Technetium-99			U	0.00823	pCi/g					01/24/05 12:04
	Uncert:			+/-0.430						
	TPU:			+/-0.430						
QC1200768497 128452002 MS										
Technetium-99	140 U	0.548		133	pCi/g		95	(75%-125%)		01/24/05 17:11
	Uncert:	+/-0.826		+/-3.12						
	TPU:	+/-0.826		+/-4.34						
Batch 392897										
QC1200768500 128452002 DUP										
Tritium		6250		6140	pCi/g	2		(0% - 20%)	NXL1	01/14/05 22:58
	Uncert:	+/-122		+/-121						
	TPU:	+/-423		+/-413						
QC1200768502 LCS										
Tritium	37.8			34.6	pCi/g		91	(75%-125%)		01/14/05 23:38
	Uncert:			+/-4.55						
	TPU:			+/-5.04						
QC1200768499 MB										
Tritium			U	-1.84	pCi/g					01/14/05 22:52
	Uncert:			+/-3.27						
	TPU:			+/-3.27						
QC1200768501 128452002 MS										
Tritium	77.7	6250		6100	pCi/g		-187 *	(75%-125%)		01/14/05 23:06
	Uncert:	+/-122		+/-120						
	TPU:	+/-423		+/-412						
Batch 392898										
QC1200768508 128452002 DUP										
Carbon-14		5.76		5.09	pCi/g	12		(0% - 20%)	NXL1	01/22/05 03:42
	Uncert:	+/-0.418		+/-0.434						
	TPU:	+/-0.429		+/-0.442						
QC1200768510 LCS										
Carbon-14	31.6			34.4	pCi/g		109	(75%-125%)		01/22/05 07:01
	Uncert:			+/-0.806						
	TPU:			+/-0.980						
QC1200768507 MB										
Carbon-14			U	-0.331	pCi/g					01/22/05 01:39
	Uncert:			+/-0.321						
	TPU:			+/-0.321						
QC1200768509 128452002 MS										
Carbon-14	64.5	5.76		74.1	pCi/g		106	(75%-125%)		01/22/05 05:18
	Uncert:	+/-0.418		+/-1.71						
	TPU:	+/-0.429		+/-2.18						
Batch 392918										

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 392918										
QC1200768555 128452004 DUP										
Nickel-63	U	2.53		3.74	pCi/g	39		(0% - 100%)	AAK	01/23/05 17:46
	Uncert:	+/-2.27		+/-2.23						
	TPU:	+/-2.28		+/-2.23						
QC1200768557 LCS										
Nickel-63	113			122	pCi/g		107	(75%-125%)		01/23/05 19:50
	Uncert:			+/-3.43						
	TPU:			+/-5.42						
QC1200768554 MB										
Nickel-63			U	-1.09	pCi/g					01/23/05 16:45
	Uncert:			+/-1.63						
	TPU:			+/-1.63						
QC1200768556 128452004 MS										
Nickel-63	275 U	2.53		266	pCi/g		96	(75%-125%)		01/23/05 18:48
	Uncert:	+/-2.27		+/-7.57						
	TPU:	+/-2.28		+/-11.9						
Batch 392919										
QC1200768559 128452004 DUP										
Tritium		4640		4650	pCi/g	0		(0% - 20%)	NXL1	01/23/05 17:29
	Uncert:	+/-91.1		+/-91.1						
	TPU:	+/-305		+/-314						
QC1200768561 LCS										
Tritium	40.2			37.2	pCi/g		93	(75%-125%)		01/23/05 18:15
	Uncert:			+/-4.94						
	TPU:			+/-5.51						
QC1200768558 MB										
Tritium			U	-2.31	pCi/g					01/23/05 17:22
	Uncert:			+/-3.43						
	TPU:			+/-3.43						
QC1200768560 128452004 MS										
Tritium	100	4640		4460	pCi/g		-181 *	(75%-125%)		01/23/05 17:43
	Uncert:	+/-91.1		+/-88.5						
	TPU:	+/-305		+/-304						
Batch 395104										
QC1200773674 128423003 DUP										
Plutonium-238	U	-0.0313	U	-0.00517	pCi/g	N/A		(0% - 100%)	RDD	01/19/05 16:04
	Uncert:	+/-0.0682		+/-0.0176						
	TPU:	+/-0.0683		+/-0.0176						
Plutonium-239/240	U	0.0437	U	0.031	pCi/g	34		(0% - 100%)		
	Uncert:	+/-0.0442		+/-0.032						
	TPU:	+/-0.0443		+/-0.0322						
QC1200773676 LCS										
Plutonium-238			U	0.0158	pCi/g			(75%-125%)		01/19/05 19:22
	Uncert:			+/-0.0646						
	TPU:			+/-0.0646						
Plutonium-239/240	7.07			6.87	pCi/g		97	(75%-125%)		
	Uncert:			+/-0.374						
	TPU:			+/-0.661						
QC1200773673 MB										

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 395104										
Plutonium-238			U	-0.00568	pCi/g					
Uncert:				+/-0.0249						
TPU:				+/-0.0249						
Plutonium-239/240			U	-0.00568	pCi/g					
Uncert:				+/-0.0401						
TPU:				+/-0.0401						
QC1200773675 128423003 MS										
Plutonium-238	U	-0.0313	U	0.167	pCi/g			(75%-125%)		01/19/05 19:21
Uncert:		+/-0.0682		+/-0.195						
TPU:		+/-0.0683		+/-0.196						
Plutonium-239/240	20.5 U	0.0437		19.7	pCi/g		96	(75%-125%)		
Uncert:		+/-0.0442		+/-1.08						
TPU:		+/-0.0443		+/-2.47						
Batch 395131										
QC1200773712 128423003 DUP										
Americium-241		0.0635	U	0.031	pCi/g	69		(0% - 100%)	RDD	01/19/05 16:04
Uncert:		+/-0.0466		+/-0.0476						
TPU:		+/-0.0471		+/-0.0477						
Curium-242	U	0.0149	U	0.00	pCi/g	200		(0% - 100%)		
Uncert:		+/-0.0207		+/-0.0168						
TPU:		+/-0.0208		+/-0.0168						
Curium-243/244	U	0.0255	U	-0.00519	pCi/g	N/A		(0% - 100%)		
Uncert:		+/-0.0395		+/-0.0619						
TPU:		+/-0.0396		+/-0.0619						
QC1200773714 LCS										
Americium-241	7.94			9.01	pCi/g		113	(75%-125%)		01/19/05 16:04
Uncert:				+/-0.396						
TPU:				+/-0.924						
Curium-242			U	0.00448	pCi/g					
Uncert:				+/-0.0292						
TPU:				+/-0.0292						
Curium-243/244	10.0			10.5	pCi/g		105	(75%-125%)		
Uncert:				+/-0.430						
TPU:				+/-1.06						
QC1200773711 MB										
Americium-241			U	0.0089	pCi/g					01/19/05 16:04
Uncert:				+/-0.0349						
TPU:				+/-0.0349						
Curium-242			U	-0.00897	pCi/g					
Uncert:				+/-0.0124						
TPU:				+/-0.0125						
Curium-243/244			U	0.0489	pCi/g					
Uncert:				+/-0.040						
TPU:				+/-0.0403						
QC1200773713 128423003 MS										
Americium-241	23.0	0.0635		24.6	pCi/g		107	(75%-125%)		01/19/05 16:04
Uncert:		+/-0.0466		+/-1.16						
TPU:		+/-0.0471		+/-2.86						
Curium-242	U	0.0149	U	-0.0982	pCi/g					

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 395131										
	Uncert:	+/-0.0207		+/-0.101						
	TPU:	+/-0.0208		+/-0.102						
Curium-243/244	29.0 U	0.0255		28.6	pCi/g		99	(75%-125%)		
	Uncert:	+/-0.0395		+/-1.25						
	TPU:	+/-0.0396		+/-3.29						
Batch 395359										
QC1200774143 128452001 DUP										
Plutonium-238		13.6		14.3	pCi/g	5		(0% - 20%)	RDD	01/20/05 16:25
	Uncert:	+/-0.831		+/-1.00						
	TPU:	+/-1.60		+/-1.91						
Plutonium-239/240		6.56		6.66	pCi/g	2		(0% - 20%)		
	Uncert:	+/-0.572		+/-0.690						
	TPU:	+/-0.872		+/-1.02						
QC1200774145 LCS										
Plutonium-238			U	0.0144	pCi/g			(75%-125%)		
	Uncert:			+/-0.0451						
	TPU:			+/-0.0451						
Plutonium-239/240	7.08			5.47	pCi/g		79	(75%-125%)		
	Uncert:			+/-0.318						
	TPU:			+/-0.530						
QC1200774142 MB										
Plutonium-238			U	0.0232	pCi/g					01/19/05 19:22
	Uncert:			+/-0.0556						
	TPU:			+/-0.0557						
Plutonium-239/240			U	0.0174	pCi/g					
	Uncert:			+/-0.044						
	TPU:			+/-0.044						
QC1200774144 128452001 MS										
Plutonium-238		13.6		13.3	pCi/g			(75%-125%)		01/20/05 16:25
	Uncert:	+/-0.831		+/-0.748						
	TPU:	+/-1.60		+/-1.37						
Plutonium-239/240	14.5	6.56		17.6	pCi/g		76	(75%-125%)		
	Uncert:	+/-0.572		+/-0.860						
	TPU:	+/-0.872		+/-1.74						
Batch 395360										
QC1200774147 128452001 DUP										
Plutonium-241		282		245	pCi/g	14		(0% - 20%)	RDD	01/25/05 11:57
	Uncert:	+/-15.2		+/-19.9						
	TPU:	+/-48.3		+/-52.6						
QC1200774149 LCS										
Plutonium-241	204			157	pCi/g		77	(75%-125%)		01/25/05 13:01
	Uncert:			+/-13.0						
	TPU:			+/-20.7						
QC1200774146 MB										
Plutonium-241			U	-1.16	pCi/g					01/25/05 09:53
	Uncert:			+/-4.68						
	TPU:			+/-4.68						
QC1200774148 128452001 MS										
Plutonium-241	417	282		663	pCi/g		91	(75%-125%)		01/25/05 12:29

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 395360										
	Uncert:	+/-15.2		+/-47.3						
	TPU:	+/-48.3		+/-97.1						
Batch 396044										
QC1200775771 128452001 DUP										
Americium-241		30.8		31.9	pCi/g	4		(0% - 20%)	RDD	01/24/05 17:35
	Uncert:	+/-0.943		+/-0.999						
	TPU:	+/-3.65		+/-3.26						
Curium-242		0.108		0.0807	pCi/g	29		(0% - 100%)		
	Uncert:	+/-0.0612		+/-0.0589						
	TPU:	+/-0.0624		+/-0.0595						
Curium-243/244		9.75		10.5	pCi/g	7		(0% - 20%)		
	Uncert:	+/-0.531		+/-0.573						
	TPU:	+/-1.23		+/-1.17						
QC1200775773 LCS										
Americium-241	10.0			10.8	pCi/g		108	(75%-125%)		
	Uncert:			+/-0.553						
	TPU:			+/-1.18						
Curium-242			U	0.00737	pCi/g					
	Uncert:			+/-0.0145						
	TPU:			+/-0.0145						
Curium-243/244	12.6			13.2	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.610						
	TPU:			+/-1.41						
QC1200775770 MB										
Americium-241			U	0.0221	pCi/g					01/25/05 12:12
	Uncert:			+/-0.107						
	TPU:			+/-0.107						
Curium-242			U	-0.00607	pCi/g					
	Uncert:			+/-0.0509						
	TPU:			+/-0.051						
Curium-243/244			U	0.0914	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.138						
QC1200775772 128452001 MS										
Americium-241	21.6	30.8		51.6	pCi/g		96	(75%-125%)		01/24/05 17:35
	Uncert:	+/-0.943		+/-1.72						
	TPU:	+/-3.65		+/-5.73						
Curium-242		0.108		0.0716	pCi/g					
	Uncert:	+/-0.0612		+/-0.0702						
	TPU:	+/-0.0624		+/-0.0706						
Curium-243/244	27.3	9.75		34.8	pCi/g		92	(75%-125%)		
	Uncert:	+/-0.531		+/-1.42						
	TPU:	+/-1.23		+/-3.95						
Batch 396213										
QC1200776155 128452002 DUP										
Plutonium-241	U	-2.43	U	-2.63	pCi/g	N/A		(0% - 100%)	RDD	01/27/05 19:51
	Uncert:	+/-2.96		+/-2.68						
	TPU:	+/-2.97		+/-2.70						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 396213										
QC1200776157 LCS										
Plutonium-241	67.3			52.2	pCi/g		78	(75%-125%)		01/27/05 21:56
	Uncert:			+/-3.04						
	TPU:			+/-6.41						
QC1200776154 MB										
Plutonium-241			U	-0.631	pCi/g					01/27/05 18:48
	Uncert:			+/-2.80						
	TPU:			+/-2.80						
QC1200776156 128452002 MS										
Plutonium-241	205 U	-2.43		161	pCi/g		79	(75%-125%)		01/27/05 20:53
	Uncert:	+/-2.96		+/-9.29						
	TPU:	+/-2.97		+/-19.4						
Batch 396742										
QC1200777357 128423001 DUP										
Technetium-99	U	0.786	U	0.037	pCi/g	0		(0% - 100%)	NXL1	02/01/05 04:27
	Uncert:	+/-0.709		+/-0.735						
	TPU:	+/-0.709		+/-0.735						
QC1200777359 LCS										
Technetium-99	57.1			58.9	pCi/g		103	(75%-125%)		02/01/05 06:32
	Uncert:			+/-1.20						
	TPU:			+/-1.92						
QC1200777356 MB										
Technetium-99			U	0.301	pCi/g					02/01/05 02:24
	Uncert:			+/-0.219						
	TPU:			+/-0.219						
QC1200777358 128423001 MS										
Technetium-99	69.6 U	0.786		65.6	pCi/g		93	(75%-125%)		02/01/05 05:30
	Uncert:	+/-0.709		+/-1.96						
	TPU:	+/-0.709		+/-2.59						
Batch 396743										
QC1200777361 128452003 DUP										
Strontium-90		0.0502		0.0419	pCi/g	18		(0%-20%)	AAK	01/28/05 07:38
	Uncert:	+/-0.0106		+/-0.0114						
	TPU:	+/-0.0134		+/-0.013						
QC1200777363 LCS										
Strontium-90	3.14			3.52	pCi/g		112	(75%-125%)		01/28/05 00:19
	Uncert:			+/-0.150						
	TPU:			+/-0.457						
QC1200777360 MB										
Strontium-90			U	0.00161	pCi/g					01/28/05 07:39
	Uncert:			+/-0.00641						
	TPU:			+/-0.00641						
QC1200777362 128452003 MS										
Strontium-90	8.10	0.0502		8.21	pCi/g		101	(75%-125%)		01/28/05 00:18
	Uncert:	+/-0.0106		+/-0.382						
	TPU:	+/-0.0134		+/-1.15						
Batch 397064										
QC1200778078 128452004 DUP										
Iron-55		648		642	pCi/g	1		(0% - 20%)	AAK	02/02/05 14:02

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 397064										
	Uncert:	+/-14.6		+/-14.9						
	TPU:	+/-32.2		+/-32.0						
QC1200778080 LCS										
Iron-55	372			349	pCi/g		94	(75%-125%)		02/02/05 15:05
	Uncert:			+/-13.5						
	TPU:			+/-20.8						
QC1200778077 MB										
Iron-55			U	-1.74	pCi/g					02/02/05 13:21
	Uncert:			+/-4.20						
	TPU:			+/-4.20						
QC1200778079 128452004 MS										
Iron-55	1090	648		1680	pCi/g		95	(75%-125%)		02/02/05 14:34
	Uncert:	+/-14.6		+/-38.0						
	TPU:	+/-32.2		+/-85.4						
Batch 399404										
QC1200783815 128452004 DUP										
Actinium-228	U	1.07	U	0.453	pCi/g	81		(0% - 100%)	ADD	02/07/05 11:09
	Uncert:	+/-3.53		+/-3.73						
	TPU:	+/-3.46		+/-3.65						
Americium-241	U	0.781	U	-0.438	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.92		+/-1.77						
	TPU:	+/-1.88		+/-1.74						
Bismuth-212	U	3.40	U	1.77	pCi/g	63*				
	Uncert:	+/-7.87		+/-7.64						
	TPU:	+/-7.71		+/-7.49						
Bismuth-214	U	-0.749	U	-1.67	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.38		+/-1.33						
	TPU:	+/-1.35		+/-1.30						
Cesium-134	U	1.18		2.66	pCi/g	77		(0% - 100%)		
	Uncert:	+/-1.21		+/-1.50						
	TPU:	+/-1.19		+/-1.47						
Cesium-137	U	0.444	U	0.318	pCi/g	33		(0% - 100%)		
	Uncert:	+/-0.787		+/-0.774						
	TPU:	+/-0.771		+/-0.759						
Cobalt-60		299		299	pCi/g	0		(0% - 20%)		
	Uncert:	+/-18.4		+/-19.0						
	TPU:	+/-18.0		+/-18.6						
Europium-152		495		487	pCi/g	1		(0% - 20%)		
	Uncert:	+/-33.8		+/-32.8						
	TPU:	+/-33.1		+/-32.2						
Europium-154		39.8		37.6	pCi/g	6		(0% - 20%)		
	Uncert:	+/-5.25		+/-5.54						
	TPU:	+/-5.14		+/-5.42						
Europium-155	U	0.443	U	0.711	pCi/g	47		(0% - 100%)		
	Uncert:	+/-1.62		+/-1.47						
	TPU:	+/-1.59		+/-1.44						
Lead-212	U	0.718	U	-0.0305	pCi/g	N/A				
	Uncert:	+/-0.785		+/-0.769						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 399404										
	TPU:	+/-0.769		+/-0.754						
Lead-214	U	1.39	U	0.0687	pCi/g	181*				
	Uncert:	+/-1.42		+/-1.02						
	TPU:	+/-1.39		+/-0.994						
Manganese-54	U	0.221	U	-0.0186	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.02		+/-0.992						
	TPU:	+/-1.00		+/-0.972						
Niobium-94	U	-0.032	U	-0.0157	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.718		+/-0.695						
	TPU:	+/-0.703		+/-0.681						
Potassium-40	UUI	0.00	UUI	0.00	pCi/g	50		(0% - 100%)		
	Uncert:	+/-5.97		+/-8.17						
	TPU:	+/-5.85		+/-8.00						
Radium-226	U	-0.749	U	-1.67	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-1.38		+/-1.33						
	TPU:	+/-1.35		+/-1.30						
Silver-108m	U	0.519	U	-0.673	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.656		+/-0.548						
	TPU:	+/-0.643		+/-0.537						
Thallium-208	U	0.416	U	1.14	pCi/g	93		(0% - 20%)		
	Uncert:	+/-0.889		+/-0.865						
	TPU:	+/-0.871		+/-0.848						
QC1200783816 LCS										
Actinium-228			U	-1.18	pCi/g					02/07/05 09:28
	Uncert:			+/-1.89						
	TPU:			+/-1.85						
Americium-241	117			125	pCi/g		107	(75%-125%)		
	Uncert:			+/-10.3						
	TPU:			+/-10.1						
Bismuth-212			U	0.0496	pCi/g					
	Uncert:			+/-2.75						
	TPU:			+/-2.70						
Bismuth-214			U	0.232	pCi/g					
	Uncert:			+/-0.621						
	TPU:			+/-0.608						
Cesium-134			U	-0.138	pCi/g					
	Uncert:			+/-0.476						
	TPU:			+/-0.467						
Cesium-137	45.5			44.9	pCi/g		99	(75%-125%)		
	Uncert:			+/-4.38						
	TPU:			+/-4.29						
Cobalt-60	65.8			65.5	pCi/g		100	(75%-125%)		
	Uncert:			+/-5.47						
	TPU:			+/-5.37						
Europium-152			U	-0.275	pCi/g					
	Uncert:			+/-0.735						
	TPU:			+/-0.720						
Europium-154			U	-0.839	pCi/g					

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing										
Batch 399404										
	Uncert:			+/-0.937						
	TPU:			+/-0.918						
Europium-155			U	-0.119	pCi/g					
	Uncert:			+/-0.687						
	TPU:			+/-0.673						
Lead-212				0.608	pCi/g					
	Uncert:			+/-0.480						
	TPU:			+/-0.471						
Lead-214			U	-0.295	pCi/g					
	Uncert:			+/-0.620						
	TPU:			+/-0.608						
Manganese-54			U	-0.184	pCi/g					
	Uncert:			+/-0.413						
	TPU:			+/-0.404						
Niobium-94			U	-0.0688	pCi/g					
	Uncert:			+/-0.329						
	TPU:			+/-0.322						
Potassium-40			U	1.49	pCi/g					
	Uncert:			+/-3.31						
	TPU:			+/-3.25						
Radium-226			U	0.232	pCi/g			(75%-125%)		
	Uncert:			+/-0.621						
	TPU:			+/-0.608						
Silver-108m			U	0.0873	pCi/g					
	Uncert:			+/-0.303						
	TPU:			+/-0.297						
Thallium-208			U	0.233	pCi/g					
	Uncert:			+/-0.341						
	TPU:			+/-0.334						
QC1200783814 MB										
Actinium-228			U	0.173	pCi/g					02/07/05 09:02
	Uncert:			+/-0.310						
	TPU:			+/-0.304						
Americium-241			U	-0.0635	pCi/g					
	Uncert:			+/-0.286						
	TPU:			+/-0.280						
Bismuth-212			U	-0.342	pCi/g					
	Uncert:			+/-0.675						
	TPU:			+/-0.661						
Bismuth-214			U	0.120	pCi/g					
	Uncert:			+/-0.169						
	TPU:			+/-0.166						
Cesium-134			U	0.000123	pCi/g					
	Uncert:			+/-0.0752						
	TPU:			+/-0.0736						
Cesium-137			U	0.0329	pCi/g					
	Uncert:			+/-0.0856						
	TPU:			+/-0.0838						

QC Summary

Workorder: 128452

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch 399404											
Cobalt-60			U	-0.00412	pCi/g						
	Uncert:			+/-0.0871							
	TPU:			+/-0.0854							
Europium-152			U	0.0404	pCi/g						
	Uncert:			+/-0.177							
	TPU:			+/-0.173							
Europium-154			U	-0.184	pCi/g						
	Uncert:			+/-0.292							
	TPU:			+/-0.286							
Europium-155			U	0.0413	pCi/g						
	Uncert:			+/-0.142							
	TPU:			+/-0.139							
Lead-212			U	0.116	pCi/g						
	Uncert:			+/-0.166							
	TPU:			+/-0.163							
Lead-214			U	0.0153	pCi/g						
	Uncert:			+/-0.111							
	TPU:			+/-0.109							
Manganese-54			U	0.103	pCi/g						
	Uncert:			+/-0.0961							
	TPU:			+/-0.0942							
Niobium-94			U	-0.0299	pCi/g						
	Uncert:			+/-0.0722							
	TPU:			+/-0.0708							
Potassium-40			U	0.141	pCi/g						
	Uncert:			+/-0.841							
	TPU:			+/-0.824							
Radium-226			U	0.120	pCi/g						
	Uncert:			+/-0.169							
	TPU:			+/-0.166							
Silver-108m			U	-0.0187	pCi/g						
	Uncert:			+/-0.0526							
	TPU:			+/-0.0515							
Thallium-208			U	-0.00953	pCi/g						
	Uncert:			+/-0.0682							
	TPU:			+/-0.0668							

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.

QC Summary

Workorder: **128452**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

U Indicates the target analyte was analyzed for but not detected above the detection limit.

UI Uncertain identification for gamma spectroscopy.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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GENERAL NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Concrete
PO# 002337
Work Order: 124488

November 4, 2004

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina October 29, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures except in items of note located below.

The laboratory prepared the following sample(s):

Sample ID	Client Sample ID
124488001	2228-0000-023-C-1C-01
124488002	2228-0000-023-C-1C-02
124488003	2228-0000-023-C-1C-03
124488004	2228-0000-023-C-1C-04
124488005	2228-0000-023-C-1C-05
124488006	2228-0000-023-C-2C-01
124488007	2228-0000-023-C-3C-01
124488008	2228-0000-022-C-1C-01
124488009	2228-0000-022-C-1C-02
124488010	2228-0000-022-C-1C-03
124488011	2228-0000-022-C-1C-04
124488012	2228-0000-022-C-1C-05
124488013	2228-0000-022-C-2C-01
124488014	2228-0000-022-C-3C-01

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Fourteen samples were analyzed for CHGAM, H-3, and SR-90.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2004-00251

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☐ 14 D. ☐ 7 D.
Other: 3 day TAT

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	Sr-90	H-3				Comment, Preservation	Lab Sample ID
2228-0000-023-C-1C-01	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-02	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-03	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-04	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-1C-05	10/27/04	1355	CT	CR	PB	X	X	X					
2228-0000-023-C-2C-01	10/27/04	1424	CT	CR	PB	X	X	X					
2228-0000-023-C-3C-01	10/27/04	1430	CT	CR	PB	X	X	X					

NOTES: PO #: 002337 MSR #: 04-3731 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

NOTE: 3 day TAT

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____
791966873477
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
J. Gerrity	10/28/04 @ 1055	M. Mitchell	10-29-04 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2004-00250

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
Sarah Kozlik

Priority: ☐ 30 D. ☐ 14 D. ☐ 7 D.
Other: 3 day TAT

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	Sr-90	H-3				Comment, Preservation	Lab Sample ID
2228-0000-022-C-1C-01	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-02	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-03	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-04	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-1C-05	10/27/04	1500	CT	CR	PB	X	X	X					
2228-0000-022-C-2C-01	10/27/04	1515	CT	CR	PB	X	X	X					
2228-0000-022-C-3C-01	10/27/04	1525	CT	CR	PB	X	X	X					

NOTES: PO #: 002337 MSR #: 04-3731 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

NOTE: 3 day TAT

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
791966873477
Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: J. Gerney — Date/Time: 10/28/04 @ 1055	2) Received By: M. Mitchell — Date/Time: 10:29:04 0950
3) Relinquished By — Date/Time	4) Received By — Date/Time
5) Relinquished By — Date/Time	6) Received By — Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 10/29/04 0950

SDG#: MSR# 04-3731

Work Order Number: 124488

Shipping Container ID: 7919 6687 3477 Chain of Custody # 2004-00251

1. Custody Seals on shipping container intact? Yes [X] No [ ]
2. Custody Seals dated and signed? Yes [X] No [ ]
3. Chain-of-Custody record present? Yes [X] No [ ]
4. Cooler temperature 20 °C
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
6. Number of samples in shipping container: 14 CT pucks (wafers)
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:

_____tape _____hazard labels

_____custody seals _X_appropriate sample labels

9. Samples are:

_X_in good condition _____leaking

_____broken _____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [X]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: M. Mitchell Date: 10-29-04 0950

Telephoned to:_____On_____By_____

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3731

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	377467
Prep Batch Number:	377367

Sample ID	Client ID
124488001	2228-0000-023-C-1C-01
124488002	2228-0000-023-C-1C-02
124488003	2228-0000-023-C-1C-03
124488004	2228-0000-023-C-1C-04
124488005	2228-0000-023-C-1C-05
124488006	2228-0000-023-C-2C-01
124488007	2228-0000-023-C-3C-01
124488008	2228-0000-022-C-1C-01
124488009	2228-0000-022-C-1C-02
124488010	2228-0000-022-C-1C-03
124488011	2228-0000-022-C-1C-04
124488012	2228-0000-022-C-1C-05
124488013	2228-0000-022-C-2C-01
124488014	2228-0000-022-C-3C-01
1200731237	Method Blank (MB)
1200731239	Laboratory Control Sample (LCS)
1200731238	124488001(2228-0000-023-C-1C-01) Sample Duplicate (DUP)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 124488001 (2228-0000-023-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Additional Comments
The U-238 and U-235 activity concentrations in sample 124488014 (2228-0000-022-C-3C-01) are above naturally occurring concentrations and were added to the list of target analytes.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Europium-155	124488012
UI	Data rejected due to low abundance.	Actinium-228	124488001
		Cesium-134	1200731238
			124488012
UI	Data rejected due to no valid peak.	Potassium-40	1200731237

Method/Analysis Information

Product:	**GFPC, Sr90, solid 24Hr TAT**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	377485
Prep Batch Number:	377368
Dry Soil Prep GL-RAD-A-021 Batch Number:	377367

Sample ID	Client ID
124488001	2228-0000-023-C-1C-01
124488002	2228-0000-023-C-1C-02
124488003	2228-0000-023-C-1C-03
124488004	2228-0000-023-C-1C-04
124488005	2228-0000-023-C-1C-05
124488006	2228-0000-023-C-2C-01
124488007	2228-0000-023-C-3C-01
124488008	2228-0000-022-C-1C-01
124488009	2228-0000-022-C-1C-02
124488010	2228-0000-022-C-1C-03
124488011	2228-0000-022-C-1C-04
124488012	2228-0000-022-C-1C-05

124488013	2228-0000-022-C-2C-01
124488014	2228-0000-022-C-3C-01
1200731296	Method Blank (MB)
1200731299	Laboratory Control Sample (LCS)
1200731297	124488001(2228-0000-023-C-1C-01) Sample Duplicate (DUP)
1200731298	124488001(2228-0000-023-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 124488001 (2228-0000-023-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	377502

Sample ID	**Client ID**
124488001	2228-0000-023-C-1C-01
124488002	2228-0000-023-C-1C-02
124488003	2228-0000-023-C-1C-03
124488004	2228-0000-023-C-1C-04
124488005	2228-0000-023-C-1C-05
124488006	2228-0000-023-C-2C-01
124488007	2228-0000-023-C-3C-01
124488008	2228-0000-022-C-1C-01
124488009	2228-0000-022-C-1C-02
124488010	2228-0000-022-C-1C-03
124488011	2228-0000-022-C-1C-04
124488012	2228-0000-022-C-1C-05
124488013	2228-0000-022-C-2C-01
124488014	2228-0000-022-C-3C-01
1200731320	Method Blank (MB)
1200731323	Laboratory Control Sample (LCS)
1200731578	124488008(2228-0000-022-C-1C-01) Sample Duplicate (DUP)
1200731579	124488008(2228-0000-022-C-1C-01) Matrix Spike (MS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 124488008 (2228-0000-022-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Heather Leche 1.13.04

Reviewer:_____

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-1C-01	Project:	YANK01304
Sample ID:	124488001	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	7.24%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228	U UI	0.00	+/-0.160	0.132	+/-0.156	0.277	pCi/g		AKB	11/01/04	1337	377467	1
Americium-241	U	-0.00349	+/-0.161	0.129	+/-0.158	0.270	pCi/g						
Bismuth-212	U	0.259	+/-0.226	0.132	+/-0.221	0.289	pCi/g						
Bismuth-214		0.421	+/-0.0843	0.0356	+/-0.0826	0.0768	pCi/g						
Cesium-134	U	0.0121	+/-0.0223	0.0201	+/-0.0219	0.044	pCi/g						
Cesium-137	U	0.0233	+/-0.0238	0.0222	+/-0.0233	0.0477	pCi/g						
Cobalt-60	U	0.0075	+/-0.0208	0.0168	+/-0.0204	0.0389	pCi/g						
Europium-152	U	-0.0231	+/-0.0536	0.0435	+/-0.0525	0.0936	pCi/g						
Europium-154	U	0.0102	+/-0.0605	0.0527	+/-0.0593	0.120	pCi/g						
Europium-155	U	0.0585	+/-0.0562	0.0553	+/-0.0551	0.116	pCi/g						
Lead-212		0.495	+/-0.0629	0.0243	+/-0.0616	0.0517	pCi/g						
Lead-214		0.429	+/-0.0968	0.0332	+/-0.0949	0.0712	pCi/g						
Manganese-54	U	0.00473	+/-0.017	0.0148	+/-0.0166	0.0331	pCi/g						
Niobium-94	U	-0.00108	+/-0.0174	0.0147	+/-0.017	0.0323	pCi/g						
Potassium-40		8.61	+/-0.904	0.145	+/-0.886	0.344	pCi/g						
Radium-226		0.421	+/-0.0843	0.0356	+/-0.0826	0.0768	pCi/g						
Silver-108m	U	0.0104	+/-0.0169	0.0159	+/-0.0165	0.0342	pCi/g						
Thallium-208		0.122	+/-0.0379	0.0152	+/-0.0371	0.0333	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90		0.0628	+/-0.0341	0.0292	+/-0.0369	0.0605	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		32.3	+/-2.17	1.06	+/-3.00	2.12	pCi/g		DAJ1	11/01/04	1838	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-1C-01
Sample ID: 124488001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	106	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

11/3/04

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-1C-02	Project:	YANK01304
Sample ID:	124488002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	6.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.592	+/-0.160	0.0716	+/-0.157	0.158	pCi/g		AKB	11/01/04	1130	377467	1
Americium-241	U	-0.066	+/-0.0973	0.0782	+/-0.0953	0.165	pCi/g						
Bismuth-212		0.590	+/-0.245	0.135	+/-0.240	0.300	pCi/g						
Bismuth-214		0.389	+/-0.0946	0.0367	+/-0.0927	0.0797	pCi/g						
Cesium-134	U	0.0446	+/-0.0258	0.0257	+/-0.0253	0.0558	pCi/g						
Cesium-137	U	-0.0166	+/-0.0244	0.0188	+/-0.0239	0.0413	pCi/g						
Cobalt-60	U	-0.0115	+/-0.0168	0.0111	+/-0.0165	0.0279	pCi/g						
Europium-152	U	-0.0199	+/-0.054	0.0467	+/-0.0529	0.100	pCi/g						
Europium-154	U	-0.001	+/-0.0696	0.0497	+/-0.0682	0.115	pCi/g						
Europium-155	U	0.0607	+/-0.0597	0.0574	+/-0.0585	0.120	pCi/g						
Lead-212		0.406	+/-0.0625	0.0288	+/-0.0612	0.0608	pCi/g						
Lead-214		0.456	+/-0.0999	0.0356	+/-0.0979	0.0762	pCi/g						
Manganese-54	U	0.0341	+/-0.0342	0.0175	+/-0.0335	0.0388	pCi/g						
Niobium-94	U	0.00652	+/-0.0208	0.018	+/-0.0204	0.0393	pCi/g						
Potassium-40		7.71	+/-0.912	0.200	+/-0.894	0.458	pCi/g						
Radium-226		0.389	+/-0.0946	0.0367	+/-0.0927	0.0797	pCi/g						
Silver-108m	U	-0.00895	+/-0.0182	0.0151	+/-0.0178	0.0329	pCi/g						
Thallium-208		0.142	+/-0.0651	0.0178	+/-0.0638	0.039	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.0474	+/-0.0423	0.0375	+/-0.0446	0.0776	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		55.7	+/-2.73	1.05	+/-4.43	2.10	pCi/g		DAJ1	11/01/04	1910	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-1C-02
Sample ID: 124488002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	79	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-1C-03	Project:	YANK01304
Sample ID:	124488003	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	6.15%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.586	+/-0.159	0.0602	+/-0.156	0.134	pCi/g		AKB	11/01/04	1131	377467	1
Americium-241	U	0.0123	+/-0.0239	0.0212	+/-0.0234	0.0443	pCi/g						
Bismuth-212		0.512	+/-0.317	0.125	+/-0.310	0.274	pCi/g						
Bismuth-214		0.371	+/-0.082	0.031	+/-0.0803	0.0674	pCi/g						
Cesium-134	U	0.0193	+/-0.0233	0.0217	+/-0.0229	0.0471	pCi/g						
Cesium-137	U	0.000901	+/-0.0206	0.018	+/-0.0202	0.0392	pCi/g						
Cobalt-60	U	-0.022	+/-0.0223	0.0154	+/-0.0218	0.0358	pCi/g						
Europium-152	U	0.0538	+/-0.0653	0.041	+/-0.064	0.0878	pCi/g						
Europium-154	U	0.0299	+/-0.0792	0.0698	+/-0.0776	0.153	pCi/g						
Europium-155	U	0.0349	+/-0.0409	0.0391	+/-0.0401	0.0817	pCi/g						
Lead-212		0.464	+/-0.0667	0.0254	+/-0.0654	0.0534	pCi/g						
Lead-214		0.507	+/-0.0817	0.0285	+/-0.0801	0.0611	pCi/g						
Manganese-54	U	0.00781	+/-0.0212	0.0187	+/-0.0208	0.0409	pCi/g						
Niobium-94	U	-0.00684	+/-0.0186	0.0155	+/-0.0183	0.0338	pCi/g						
Potassium-40		7.30	+/-0.924	0.151	+/-0.905	0.351	pCi/g						
Radium-226		0.371	+/-0.082	0.031	+/-0.0803	0.0674	pCi/g						
Silver-108m	U	-0.026	+/-0.0175	0.0127	+/-0.0171	0.0276	pCi/g						
Thallium-208		0.150	+/-0.0417	0.0172	+/-0.0409	0.0373	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.00661	+/-0.031	0.0287	+/-0.031	0.0592	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		50.8	+/-2.66	1.08	+/-4.29	2.16	pCi/g		DAJ1	11/01/04	1942	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-1C-03
Sample ID: 124488003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	108	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-1C-04	Project:	YANK01304
Sample ID:	124488004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	7.52%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.424	+/-0.144	0.0566	+/-0.141	0.126	pCi/g		AKB 11/01/04	1131	377467	1
Americium-241	U	-0.069	+/-0.144	0.111	+/-0.141	0.234	pCi/g					
Bismuth-212		0.278	+/-0.169	0.125	+/-0.166	0.274	pCi/g					
Bismuth-214		0.383	+/-0.0928	0.0285	+/-0.0909	0.0623	pCi/g					
Cesium-134	U	0.0144	+/-0.0198	0.019	+/-0.0194	0.0417	pCi/g					
Cesium-137	U	0.0165	+/-0.0198	0.0186	+/-0.0194	0.0402	pCi/g					
Cobalt-60	U	0.00581	+/-0.0205	0.0181	+/-0.020	0.0413	pCi/g					
Europium-152	U	-0.0061	+/-0.0517	0.0438	+/-0.0507	0.0938	pCi/g					
Europium-154	U	-0.00241	+/-0.0595	0.0503	+/-0.0583	0.114	pCi/g					
Europium-155	U	0.00511	+/-0.0502	0.0476	+/-0.0492	0.100	pCi/g					
Lead-212		0.424	+/-0.0574	0.0245	+/-0.0562	0.052	pCi/g					
Lead-214		0.392	+/-0.0853	0.0275	+/-0.0836	0.0595	pCi/g					
Manganese-54	U	0.00115	+/-0.0195	0.0165	+/-0.0191	0.0364	pCi/g					
Niobium-94	U	0.00982	+/-0.0112	0.0117	+/-0.011	0.0261	pCi/g					
Potassium-40		7.38	+/-0.837	0.130	+/-0.821	0.310	pCi/g					
Radium-226		0.383	+/-0.0928	0.0285	+/-0.0909	0.0623	pCi/g					
Silver-108m	U	2.140E-05	+/-0.0158	0.0142	+/-0.0155	0.0309	pCi/g					
Thallium-208		0.141	+/-0.0409	0.0194	+/-0.040	0.0416	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.067	+/-0.0483	0.0426	+/-0.0518	0.0878	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		59.6	+/-2.75	1.01	+/-4.63	2.01	pCi/g		DAJ1 11/01/04	2014	377502	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-1C-04
Sample ID: 124488004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	82	(25%-125%)

Notes:
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- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-1C-05	Project:	YANK01304
Sample ID:	124488005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	8.48%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.437	+/-0.192	0.0737	+/-0.188	0.165	pCi/g		AKB	11/01/04	1144	377467	1
Americium-241	U	0.00452	+/-0.0305	0.0284	+/-0.0299	0.0595	pCi/g						
Bismuth-212	U	0.263	+/-0.330	0.165	+/-0.323	0.363	pCi/g						
Bismuth-214		0.345	+/-0.0902	0.0402	+/-0.0884	0.0874	pCi/g						
Cesium-134	U	0.037	+/-0.0355	0.0275	+/-0.0347	0.0598	pCi/g						
Cesium-137	U	-0.00644	+/-0.0255	0.0218	+/-0.025	0.0477	pCi/g						
Cobalt-60	U	-0.000147	+/-0.0339	0.0252	+/-0.0332	0.0569	pCi/g						
Europium-152	U	-0.0155	+/-0.0541	0.0461	+/-0.053	0.0996	pCi/g						
Europium-154	U	0.0257	+/-0.0707	0.0642	+/-0.0693	0.146	pCi/g						
Europium-155	U	0.0301	+/-0.0493	0.0454	+/-0.0483	0.0954	pCi/g						
Lead-212		0.463	+/-0.059	0.0266	+/-0.0578	0.0564	pCi/g						
Lead-214		0.456	+/-0.106	0.0369	+/-0.104	0.0792	pCi/g						
Manganese-54	U	-6.740E-05	+/-0.0253	0.0216	+/-0.0248	0.0476	pCi/g						
Niobium-94	U	0.0151	+/-0.0263	0.0241	+/-0.0258	0.052	pCi/g						
Potassium-40		6.91	+/-0.978	0.166	+/-0.958	0.399	pCi/g						
Radium-226		0.345	+/-0.0902	0.0402	+/-0.0884	0.0874	pCi/g						
Silver-108m	U	0.00536	+/-0.0198	0.0175	+/-0.0194	0.0378	pCi/g						
Thallium-208		0.186	+/-0.0502	0.0204	+/-0.0492	0.0445	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.0451	+/-0.0309	0.0268	+/-0.0326	0.0556	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		36.9	+/-2.26	1.04	+/-3.26	2.07	pCi/g		DAJ1	11/01/04	2046	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-1C-05
Sample ID: 124488005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	105	(25%-125%)

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-2C-01	Project:	YANK01304
Sample ID:	124488006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	7.21%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.464	+/-0.161	0.0525	+/-0.158	0.119	pCi/g		AKB	11/01/04	1225	377467	1
Americium-241	U	0.00843	+/-0.0346	0.0655	+/-0.034	0.138	pCi/g						
Bismuth-212	U	0.239	+/-0.287	0.136	+/-0.281	0.299	pCi/g						
Bismuth-214		0.382	+/-0.0939	0.0274	+/-0.092	0.0606	pCi/g						
Cesium-134	U	0.0184	+/-0.0261	0.0193	+/-0.0256	0.0425	pCi/g						
Cesium-137	U	0.00525	+/-0.0182	0.0163	+/-0.0178	0.036	pCi/g						
Cobalt-60	U	0.0062	+/-0.0193	0.0175	+/-0.0189	0.0404	pCi/g						
Europium-152	U	0.0249	+/-0.0451	0.0408	+/-0.0442	0.0879	pCi/g						
Europium-154	U	0.0325	+/-0.161	0.057	+/-0.157	0.129	pCi/g						
Europium-155	U	0.00925	+/-0.0519	0.0488	+/-0.0509	0.102	pCi/g						
Lead-212		0.433	+/-0.0622	0.0236	+/-0.0609	0.0501	pCi/g						
Lead-214		0.426	+/-0.0936	0.0329	+/-0.0917	0.0703	pCi/g						
Manganese-54	U	0.0281	+/-0.0203	0.0199	+/-0.0199	0.0434	pCi/g						
Niobium-94	U	0.0027	+/-0.019	0.0166	+/-0.0186	0.0362	pCi/g						
Potassium-40		8.21	+/-1.07	0.158	+/-1.04	0.370	pCi/g						
Radium-226		0.382	+/-0.0939	0.0274	+/-0.092	0.0606	pCi/g						
Silver-108m	U	0.00121	+/-0.0165	0.0139	+/-0.0162	0.0304	pCi/g						
Thallium-208		0.144	+/-0.0423	0.0141	+/-0.0414	0.0312	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.044	+/-0.0335	0.0295	+/-0.0349	0.061	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		3.77	+/-1.14	1.08	+/-1.17	2.15	pCi/g		DAJ1	11/01/04	2117	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-2C-01
Sample ID: 124488006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	107	(25%-125%)

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-023-C-3C-01	Project:	YANK01304
Sample ID:	124488007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	7.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.411	+/-0.162	0.0531	+/-0.159	0.120	pCi/g		AKB 11/01/04	1225	377467 1
Americium-241	U	-0.0701	+/-0.113	0.095	+/-0.111	0.201	pCi/g				
Bismuth-212		0.480	+/-0.182	0.117	+/-0.178	0.261	pCi/g				
Bismuth-214		0.430	+/-0.0861	0.0305	+/-0.0844	0.0666	pCi/g				
Cesium-134	U	0.0321	+/-0.0265	0.0203	+/-0.026	0.0445	pCi/g				
Cesium-137	U	0.0204	+/-0.0198	0.0176	+/-0.0194	0.0384	pCi/g				
Cobalt-60	U	0.0206	+/-0.0171	0.0171	+/-0.0167	0.0396	pCi/g				
Europium-152	U	-0.00769	+/-0.0519	0.0435	+/-0.0508	0.0935	pCi/g				
Europium-154	U	-0.036	+/-0.0623	0.0473	+/-0.061	0.109	pCi/g				
Europium-155	U	0.0303	+/-0.0581	0.056	+/-0.0569	0.117	pCi/g				
Lead-212		0.498	+/-0.0609	0.0236	+/-0.0596	0.0502	pCi/g				
Lead-214		0.415	+/-0.0888	0.0315	+/-0.0871	0.0678	pCi/g				
Manganese-54	U	-0.00181	+/-0.0226	0.0163	+/-0.0221	0.036	pCi/g				
Niobium-94	U	-0.019	+/-0.0224	0.0144	+/-0.022	0.0318	pCi/g				
Potassium-40		8.17	+/-0.830	0.180	+/-0.814	0.414	pCi/g				
Radium-226		0.430	+/-0.0861	0.0305	+/-0.0844	0.0666	pCi/g				
Silver-108m	U	0.00287	+/-0.0167	0.0151	+/-0.0163	0.0328	pCi/g				
Thallium-208		0.108	+/-0.0421	0.0159	+/-0.0413	0.0349	pCi/g				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90		0.360	+/-0.0489	0.0325	+/-0.105	0.0674	pCi/g		JMB1 11/02/04	0359	377485 2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		22.3	+/-1.91	1.09	+/-2.40	2.18	pCi/g		DAJ1 11/01/04	2149	377502 3
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-023-C-3C-01
Sample ID: 124488007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	91	(25%-125%)

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-1C-01	Project:	YANK01304
Sample ID:	124488008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	5.61%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.503	+/-0.136	0.0548	+/-0.134	0.123	pCi/g		AKB 11/01/04	1226	377467 1
Americium-241	U	-0.00231	+/-0.0962	0.0769	+/-0.0942	0.161	pCi/g				
Bismuth-212		0.340	+/-0.260	0.135	+/-0.254	0.297	pCi/g				
Bismuth-214		0.530	+/-0.0972	0.0293	+/-0.0952	0.0643	pCi/g				
Cesium-134	U	0.0154	+/-0.0211	0.0194	+/-0.0207	0.0427	pCi/g				
Cesium-137	U	0.00239	+/-0.0184	0.016	+/-0.0181	0.0354	pCi/g				
Cobalt-60	U	-0.00682	+/-0.018	0.0138	+/-0.0176	0.0329	pCi/g				
Europium-152	U	-0.0281	+/-0.0514	0.041	+/-0.0503	0.0884	pCi/g				
Europium-154	U	-0.0376	+/-0.0581	0.043	+/-0.057	0.100	pCi/g				
Europium-155	U	0.0431	+/-0.0514	0.050	+/-0.0504	0.105	pCi/g				
Lead-212		0.485	+/-0.0711	0.0264	+/-0.0697	0.0559	pCi/g				
Lead-214		0.617	+/-0.0957	0.0286	+/-0.0937	0.0618	pCi/g				
Manganese-54	U	-0.00803	+/-0.0199	0.0157	+/-0.0195	0.0348	pCi/g				
Niobium-94	U	0.00672	+/-0.0207	0.0182	+/-0.0203	0.0394	pCi/g				
Potassium-40		7.48	+/-0.938	0.130	+/-0.919	0.312	pCi/g				
Radium-226		0.530	+/-0.0972	0.0293	+/-0.0952	0.0643	pCi/g				
Silver-108m	U	0.0057	+/-0.0173	0.0159	+/-0.017	0.0342	pCi/g				
Thallium-208		0.150	+/-0.0406	0.0185	+/-0.0398	0.0401	pCi/g				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90		0.266	+/-0.0523	0.0382	+/-0.100	0.0792	pCi/g		JMB1 11/02/04	0359	377485 2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium		8.20	+/-1.34	1.06	+/-1.44	2.12	pCi/g		DAJ1 11/01/04	2221	377502 3
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-1C-01
Sample ID: 124488008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	72	(25%-125%)

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-1C-02	Project:	YANK01304
Sample ID:	124488009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	5.45%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.594	+/-0.155	0.059	+/-0.152	0.132	pCi/g		AKB 11/01/04	1226	377467	1
Americium-241	U	0.089	+/-0.107	0.0954	+/-0.105	0.199	pCi/g					
Bismuth-212		0.409	+/-0.233	0.126	+/-0.229	0.279	pCi/g					
Bismuth-214		0.459	+/-0.0983	0.0368	+/-0.0964	0.0796	pCi/g					
Cesium-134	U	0.0421	+/-0.0332	0.0247	+/-0.0325	0.0533	pCi/g					
Cesium-137	U	-0.0156	+/-0.0214	0.0173	+/-0.021	0.038	pCi/g					
Cobalt-60	U	-0.0102	+/-0.0259	0.0207	+/-0.0253	0.0465	pCi/g					
Europium-152	U	-0.00553	+/-0.0566	0.0495	+/-0.0555	0.106	pCi/g					
Europium-154	U	-0.006	+/-0.0659	0.0554	+/-0.0645	0.125	pCi/g					
Europium-155	U	-0.00103	+/-0.0696	0.0629	+/-0.0682	0.131	pCi/g					
Lead-212		0.521	+/-0.0697	0.0329	+/-0.0683	0.0691	pCi/g					
Lead-214		0.524	+/-0.105	0.0379	+/-0.103	0.0809	pCi/g					
Manganese-54	U	0.0139	+/-0.0226	0.0206	+/-0.0222	0.0447	pCi/g					
Niobium-94	U	0.0183	+/-0.0206	0.0194	+/-0.0201	0.0418	pCi/g					
Potassium-40		8.36	+/-0.891	0.190	+/-0.874	0.430	pCi/g					
Radium-226		0.459	+/-0.0983	0.0368	+/-0.0964	0.0796	pCi/g					
Silver-108m	U	0.0155	+/-0.0191	0.0178	+/-0.0187	0.0382	pCi/g					
Thallium-208		0.131	+/-0.040	0.0199	+/-0.0392	0.043	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90		0.0507	+/-0.0254	0.0213	+/-0.0276	0.0444	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		27.4	+/-1.95	0.989	+/-2.55	1.98	pCi/g		DAJ1 11/01/04	2253	377502	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-1C-02
Sample ID: 124488009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	114	(25%-125%)

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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11/3/04

Reviewed by

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-1C-03	Project:	YANK01304
Sample ID:	124488010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	4.01%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.264	+/-0.107	0.0545	+/-0.105	0.120	pCi/g		AKB	11/01/04	1229	377467	1
Americium-241	U	-0.0099	+/-0.0748	0.0632	+/-0.0733	0.132	pCi/g						
Bismuth-212	U	0.109	+/-0.177	0.100	+/-0.174	0.223	pCi/g						
Bismuth-214		0.274	+/-0.0577	0.0258	+/-0.0565	0.0563	pCi/g						
Cesium-134	U	0.0261	+/-0.028	0.0144	+/-0.0274	0.032	pCi/g						
Cesium-137	U	-0.00879	+/-0.0173	0.0138	+/-0.017	0.0305	pCi/g						
Cobalt-60	U	-0.008	+/-0.0155	0.0115	+/-0.0152	0.0273	pCi/g						
Europium-152	U	-0.0329	+/-0.0438	0.0371	+/-0.0429	0.0797	pCi/g						
Europium-154	U	0.00349	+/-0.0538	0.0458	+/-0.0528	0.104	pCi/g						
Europium-155	U	0.00435	+/-0.0482	0.0446	+/-0.0472	0.0934	pCi/g						
Lead-212		0.299	+/-0.0462	0.0222	+/-0.0453	0.047	pCi/g						
Lead-214		0.275	+/-0.066	0.0316	+/-0.0646	0.067	pCi/g						
Manganese-54	U	-0.000622	+/-0.0169	0.0148	+/-0.0165	0.0325	pCi/g						
Niobium-94	U	-0.0132	+/-0.016	0.0122	+/-0.0157	0.0269	pCi/g						
Potassium-40		5.62	+/-0.620	0.112	+/-0.608	0.267	pCi/g						
Radium-226		0.274	+/-0.0577	0.0258	+/-0.0565	0.0563	pCi/g						
Silver-108m	U	0.00796	+/-0.015	0.014	+/-0.0147	0.0301	pCi/g						
Thallium-208		0.100	+/-0.0273	0.0159	+/-0.0268	0.0343	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.0474	+/-0.0329	0.0286	+/-0.0349	0.0594	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		28.3	+/-2.10	1.10	+/-2.81	2.19	pCi/g		DAJ1	11/01/04	2325	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-1C-03
Sample ID: 124488010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	93	(25%-125%)

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-1C-04	Project:	YANK01304
Sample ID:	124488011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	4.65%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.476	+/-0.106	0.0436	+/-0.103	0.0948	pCi/g		AKB	11/01/04	1230	377467	1
Americium-241	U	0.119	+/-0.122	0.0862	+/-0.120	0.179	pCi/g						
Bismuth-212		0.269	+/-0.230	0.103	+/-0.225	0.221	pCi/g						
Bismuth-214		0.299	+/-0.0744	0.0252	+/-0.0729	0.0538	pCi/g						
Cesium-134	U	0.0264	+/-0.0241	0.0159	+/-0.0236	0.0341	pCi/g						
Cesium-137	U	-0.0218	+/-0.0154	0.0116	+/-0.0151	0.025	pCi/g						
Cobalt-60	U	0.0123	+/-0.0315	0.0157	+/-0.0309	0.0343	pCi/g						
Europium-152	U	-0.013	+/-0.0507	0.0375	+/-0.0497	0.0791	pCi/g						
Europium-154	U	0.00669	+/-0.0469	0.0404	+/-0.046	0.0887	pCi/g						
Europium-155	U	0.0065	+/-0.0557	0.0492	+/-0.0546	0.102	pCi/g						
Lead-212		0.432	+/-0.0513	0.023	+/-0.0503	0.048	pCi/g						
Lead-214		0.395	+/-0.0665	0.0293	+/-0.0652	0.0616	pCi/g						
Manganese-54	U	-0.00553	+/-0.0153	0.0124	+/-0.015	0.0269	pCi/g						
Niobium-94	U	-0.0105	+/-0.0135	0.0108	+/-0.0133	0.0233	pCi/g						
Potassium-40		7.44	+/-0.613	0.103	+/-0.601	0.235	pCi/g						
Radium-226		0.299	+/-0.0744	0.0252	+/-0.0729	0.0538	pCi/g						
Silver-108m	U	-0.00586	+/-0.0141	0.0116	+/-0.0139	0.0247	pCi/g						
Thallium-208		0.127	+/-0.0278	0.0133	+/-0.0272	0.0284	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.0412	+/-0.0333	0.0293	+/-0.0348	0.0607	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		50.6	+/-2.63	1.06	+/-4.27	2.13	pCi/g		DAJ1	11/01/04	2357	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-1C-04
Sample ID: 124488011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	94	(25%-125%)

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-1C-05	Project:	YANK01304
Sample ID:	124488012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	6.56%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.420	+/-0.111	0.0306	+/-0.108	0.065	pCi/g		AKB	11/01/04	1230	377467	1
Americium-241	U	0.000909	+/-0.0424	0.0364	+/-0.0416	0.0748	pCi/g						
Bismuth-212		0.348	+/-0.153	0.0702	+/-0.150	0.148	pCi/g						
Bismuth-214		0.432	+/-0.0708	0.0177	+/-0.0693	0.037	pCi/g						
Cesium-134	U	0.00	+/-0.0233	0.0111	+/-0.0228	0.0232	pCi/g						
	UI												
Cesium-137	U	-0.0126	+/-0.0105	0.00832	+/-0.0103	0.0176	pCi/g						
Cobalt-60	U	0.00483	+/-0.0117	0.0101	+/-0.0115	0.0217	pCi/g						
Europium-152	U	0.00165	+/-0.0317	0.0246	+/-0.0311	0.0512	pCi/g						
Europium-154	U	0.020	+/-0.0407	0.031	+/-0.0399	0.0658	pCi/g						
Europium-155	U	0.00	+/-0.0449	0.0297	+/-0.044	0.0612	pCi/g						
	UI												
Lead-212		0.453	+/-0.0474	0.0164	+/-0.0465	0.0337	pCi/g						
Lead-214		0.461	+/-0.0559	0.0176	+/-0.0548	0.0367	pCi/g						
Manganese-54	U	-0.00877	+/-0.0106	0.00841	+/-0.0104	0.0178	pCi/g						
Niobium-94	U	-0.000797	+/-0.00934	0.00799	+/-0.00915	0.0168	pCi/g						
Potassium-40		8.07	+/-0.717	0.083	+/-0.702	0.180	pCi/g						
Radium-226		0.432	+/-0.0708	0.0177	+/-0.0693	0.037	pCi/g						
Silver-108m	U	-0.00693	+/-0.0101	0.0083	+/-0.00987	0.0173	pCi/g						
Thallium-208		0.149	+/-0.028	0.00844	+/-0.0274	0.0178	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid 24Hr TAT													
Strontium-90	U	0.0283	+/-0.0428	0.0389	+/-0.0436	0.0803	pCi/g		JMB1	11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium		56.0	+/-2.86	1.14	+/-4.80	2.27	pCi/g		DAJ1	11/02/04	0029	377502	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-1C-05
Sample ID: 124488012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	81	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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- B Target analyte was detected in the sample as well as the associated blank.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-2C-01	Project:	YANK01304
Sample ID:	124488013	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	4.64%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)											
Actinium-228		0.464	+/-0.190	0.0846	+/-0.186	0.191	pCi/g		AKB 11/01/04	1330	377467 1
Americium-241	U	-0.0237	+/-0.0756	0.0609	+/-0.074	0.126	pCi/g				
Bismuth-212	U	0.190	+/-0.326	0.185	+/-0.320	0.412	pCi/g				
Bismuth-214		0.415	+/-0.119	0.0417	+/-0.117	0.0922	pCi/g				
Cesium-134	U	0.00786	+/-0.0417	0.0338	+/-0.0409	0.0737	pCi/g				
Cesium-137	U	0.0434	+/-0.072	0.0246	+/-0.0705	0.0545	pCi/g				
Cobalt-60	U	-0.00482	+/-0.0291	0.0232	+/-0.0286	0.0546	pCi/g				
Europium-152	U	0.0373	+/-0.0816	0.0667	+/-0.080	0.142	pCi/g				
Europium-154	U	-0.0362	+/-0.0838	0.0633	+/-0.0821	0.149	pCi/g				
Europium-155	U	-0.0236	+/-0.0772	0.0675	+/-0.0756	0.141	pCi/g				
Lead-212		0.342	+/-0.0984	0.0456	+/-0.0964	0.0952	pCi/g				
Lead-214		0.509	+/-0.123	0.0493	+/-0.121	0.105	pCi/g				
Manganese-54	U	0.0268	+/-0.0315	0.0298	+/-0.0308	0.0651	pCi/g				
Niobium-94	U	0.0243	+/-0.0299	0.0237	+/-0.0293	0.0522	pCi/g				
Potassium-40		7.84	+/-1.24	0.220	+/-1.22	0.522	pCi/g				
Radium-226		0.415	+/-0.119	0.0417	+/-0.117	0.0922	pCi/g				
Silver-108m	U	-0.018	+/-0.0249	0.0199	+/-0.0244	0.0434	pCi/g				
Thallium-208		0.180	+/-0.0664	0.0256	+/-0.065	0.0559	pCi/g				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, solid 24Hr TAT											
Strontium-90	U	0.055	+/-0.040	0.0353	+/-0.0429	0.0729	pCi/g		JMB1 11/02/04	0359	377485 2
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)											
Tritium	U	1.27	+/-1.03	1.11	+/-1.03	2.21	pCi/g		DAJ1 11/02/04	0101	377502 3
Solid Preparation											
Laboratory Composite											

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
GL-RAD-A-026	Laboratory sample composite				377365

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-2C-01
Sample ID: 124488013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	84	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID:	2228-0000-022-C-3C-01	Project:	YANK01304
Sample ID:	124488014	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	27-OCT-04		
Receive Date:	29-OCT-04		
Collector:	Client		
Moisture:	5.57%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.801	+/-0.240	0.0954	+/-0.235	0.205	pCi/g		AKB 11/01/04	1333	377467	1
Americium-241	U	-0.0345	+/-0.409	0.282	+/-0.400	0.571	pCi/g					
Bismuth-212		0.888	+/-0.414	0.223	+/-0.405	0.473	pCi/g					
Bismuth-214		0.615	+/-0.133	0.0487	+/-0.130	0.103	pCi/g					
Cesium-134		0.0809	+/-0.0613	0.036	+/-0.0601	0.0759	pCi/g					
Cesium-137	U	-0.00818	+/-0.0334	0.0277	+/-0.0327	0.0588	pCi/g					
Cobalt-60	U	0.0241	+/-0.0275	0.0255	+/-0.0269	0.0563	pCi/g					
Europium-152	U	0.00884	+/-0.0771	0.070	+/-0.0755	0.146	pCi/g					
Europium-154	U	0.0637	+/-0.0903	0.0813	+/-0.0885	0.177	pCi/g					
Europium-155	U	0.149	+/-0.164	0.136	+/-0.161	0.277	pCi/g					
Lead-212		0.759	+/-0.0941	0.0434	+/-0.0923	0.0898	pCi/g					
Lead-214		0.593	+/-0.124	0.0496	+/-0.121	0.104	pCi/g					
Manganese-54	U	-0.0223	+/-0.0323	0.0267	+/-0.0316	0.057	pCi/g					
Niobium-94	U	0.00757	+/-0.0346	0.0295	+/-0.0339	0.062	pCi/g					
Potassium-40		21.9	+/-1.41	0.222	+/-1.38	0.498	pCi/g					
Radium-226		0.615	+/-0.133	0.0487	+/-0.130	0.103	pCi/g					
Silver-108m	U	-0.0161	+/-0.0283	0.0242	+/-0.0277	0.0508	pCi/g					
Thallium-208		0.291	+/-0.0595	0.0286	+/-0.0583	0.0603	pCi/g					
Uranium-235		1.35	+/-0.396	0.279	+/-0.388	0.568	pCi/g					
Uranium-238		113	+/-5.51	2.04	+/-5.40	4.14	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid 24Hr TAT												
Strontium-90	U	0.0213	+/-0.0323	0.0292	+/-0.0328	0.0605	pCi/g		JMB1 11/02/04	0359	377485	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		12.4	+/-1.58	1.12	+/-1.79	2.24	pCi/g		DAJ1 11/02/04	0132	377502	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	10/30/04	1143	377368
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	10/29/04	1046	377367
					377365

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: November 3, 2004

Client Sample ID: 2228-0000-022-C-3C-01
Sample ID: 124488014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
GL-RAD-A-026	Laboratory sample composite										

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid 24Hr TAT	94	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

QUALITY CONTROL DATA

QC Summary

Report Date: November 3, 2004
Page 1 of 6

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 377467											
QC1200731238 124488001 DUP											
Actinium-228	UUI	0.00		0.466	pCi/g	2		(0% - 100%)	AKB	11/01/04	20:49
	Uncert:	+/-0.160		+/-0.104							
	TPU:	+/-0.156		+/-0.102							
Americium-241	U	-0.00349	U	0.0245	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.161		+/-0.0965							
	TPU:	+/-0.158		+/-0.0945							
Bismuth-212	U	0.259		0.287	pCi/g	11		(0% - 100%)			
	Uncert:	+/-0.226		+/-0.160							
	TPU:	+/-0.221		+/-0.157							
Bismuth-214		0.421		0.357	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.0843		+/-0.0505							
	TPU:	+/-0.0826		+/-0.0495							
Cesium-134	U	0.0121	UUI	0.00	pCi/g	75		(0% - 100%)			
	Uncert:	+/-0.0223		+/-0.0197							
	TPU:	+/-0.0219		+/-0.0193							
Cesium-137	U	0.0233	U	-0.00668	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0238		+/-0.0135							
	TPU:	+/-0.0233		+/-0.0132							
Cobalt-60	U	0.0075	U	0.00751	pCi/g	0		(0% - 100%)			
	Uncert:	+/-0.0208		+/-0.0126							
	TPU:	+/-0.0204		+/-0.0124							
Europium-152	U	-0.0231	U	-0.00781	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0536		+/-0.0313							
	TPU:	+/-0.0525		+/-0.0307							
Europium-154	U	0.0102	U	-0.0149	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0605		+/-0.0334							
	TPU:	+/-0.0593		+/-0.0327							
Europium-155	U	0.0585	U	0.0302	pCi/g	64		(0% - 100%)			
	Uncert:	+/-0.0562		+/-0.0407							
	TPU:	+/-0.0551		+/-0.0399							
Lead-212		0.495		0.448	pCi/g	10		(0% - 100%)			
	Uncert:	+/-0.0629		+/-0.0378							
	TPU:	+/-0.0616		+/-0.0371							
Lead-214		0.429		0.452	pCi/g	5		(0% - 100%)			
	Uncert:	+/-0.0968		+/-0.0575							
	TPU:	+/-0.0949		+/-0.0563							
Manganese-54	U	0.00473	U	-0.00147	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.017		+/-0.0117							
	TPU:	+/-0.0166		+/-0.0114							
Niobium-94	U	-0.00108	U	-0.00344	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0174		+/-0.0105							
	TPU:	+/-0.017		+/-0.0103							

QC Summary

Workorder: **124488**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 377467											
Potassium-40		8.61		7.56	pCi/g	13		(0% - 20%)			
	Uncert:	+/-0.904		+/-0.497							
	TPU:	+/-0.886		+/-0.487							
Radium-226		0.421		0.357	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.0843		+/-0.0505							
	TPU:	+/-0.0826		+/-0.0495							
Silver-108m		0.0104 U	U	-0.00191	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0169		+/-0.0105							
	TPU:	+/-0.0165		+/-0.0103							
Thallium-208		0.122		0.144	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.0379		+/-0.0255							
	TPU:	+/-0.0371		+/-0.025							
Uranium-235		0.163 U	U	0.0125	pCi/g	171*		(0% - 20%)			
	Uncert:	+/-0.189		+/-0.091							
	TPU:	+/-0.185		+/-0.0892							
Uranium-238		-0.134 U	U	0.727	pCi/g	N/A					
	Uncert:	+/-1.28		+/-0.757							
	TPU:	+/-1.26		+/-0.742							
QC1200731239 LCS											
Actinium-228			U	0.0559	pCi/g					11/01/04	14:56
	Uncert:			+/-0.403							
	TPU:			+/-0.395							
Americium-241	23.4			23.5	pCi/g		101	(75%-125%)			
	Uncert:			+/-1.25							
	TPU:			+/-1.23							
Bismuth-212			U	-0.0582	pCi/g						
	Uncert:			+/-0.825							
	TPU:			+/-0.808							
Bismuth-214			U	0.00397	pCi/g						
	Uncert:			+/-0.151							
	TPU:			+/-0.148							
Cesium-134			U	-0.0579	pCi/g						
	Uncert:			+/-0.0998							
	TPU:			+/-0.0978							
Cesium-137	9.16			9.67	pCi/g		106	(75%-125%)			
	Uncert:			+/-0.362							
	TPU:			+/-0.354							
Cobalt-60	13.6			14.9	pCi/g		109	(75%-125%)			
	Uncert:			+/-0.506							
	TPU:			+/-0.496							
Europium-152			U	0.222	pCi/g						
	Uncert:			+/-0.221							
	TPU:			+/-0.216							
Europium-154			U	0.0409	pCi/g						
	Uncert:			+/-0.200							
	TPU:			+/-0.196							
Europium-155			U	-0.318	pCi/g						
	Uncert:			+/-0.277							

QC Summary

Workorder: **124488**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 377467											
	TPU:			+/-0.271							
Lead-212			U	-0.00791	pCi/g						
	Uncert:			+/-0.125							
	TPU:			+/-0.122							
Lead-214			U	0.0636	pCi/g						
	Uncert:			+/-0.165							
	TPU:			+/-0.161							
Manganese-54			U	-0.0521	pCi/g						
	Uncert:			+/-0.0895							
	TPU:			+/-0.0877							
Niobium-94			U	0.0208	pCi/g						
	Uncert:			+/-0.0792							
	TPU:			+/-0.0776							
Potassium-40			U	0.588	pCi/g						
	Uncert:			+/-0.675							
	TPU:			+/-0.661							
Radium-226			U	0.00397	pCi/g			(75%-125%)			
	Uncert:			+/-0.151							
	TPU:			+/-0.148							
Silver-108m			U	0.0147	pCi/g						
	Uncert:			+/-0.0858							
	TPU:			+/-0.0841							
Thallium-208			U	0.00372	pCi/g						
	Uncert:			+/-0.078							
	TPU:			+/-0.0764							
Uranium-235			U	-0.232	pCi/g			(75%-125%)			
	Uncert:			+/-0.433							
	TPU:			+/-0.425							
Uranium-238			U	-6.31	pCi/g						
	Uncert:			+/-4.31							
	TPU:			+/-4.22							
QC1200731237 MB											
Actinium-228			U	0.0412	pCi/g					11/01/04	13:34
	Uncert:			+/-0.117							
	TPU:			+/-0.114							
Americium-241			U	0.000754	pCi/g						
	Uncert:			+/-0.0265							
	TPU:			+/-0.026							
Bismuth-212			U	-0.0092	pCi/g						
	Uncert:			+/-0.205							
	TPU:			+/-0.201							
Bismuth-214			U	0.0423	pCi/g						
	Uncert:			+/-0.0552							
	TPU:			+/-0.0541							
Cesium-134			U	0.0168	pCi/g						
	Uncert:			+/-0.0249							
	TPU:			+/-0.0244							
Cesium-137			U	-0.000879	pCi/g						

QC Summary

Workorder: **124488**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 377467										
	Uncert:			+/-0.0237						
	TPU:			+/-0.0232						
Cobalt-60			U	-0.0181	pCi/g					
	Uncert:			+/-0.0262						
	TPU:			+/-0.0256						
Europium-152			U	0.00277	pCi/g					
	Uncert:			+/-0.0569						
	TPU:			+/-0.0557						
Europium-154			U	0.025	pCi/g					
	Uncert:			+/-0.0722						
	TPU:			+/-0.0708						
Europium-155			U	0.00948	pCi/g					
	Uncert:			+/-0.0389						
	TPU:			+/-0.0381						
Lead-212			U	0.0392	pCi/g					
	Uncert:			+/-0.0616						
	TPU:			+/-0.0604						
Lead-214			U	0.000121	pCi/g					
	Uncert:			+/-0.0408						
	TPU:			+/-0.040						
Manganese-54			U	0.00116	pCi/g					
	Uncert:			+/-0.0199						
	TPU:			+/-0.0195						
Niobium-94			U	0.0031	pCi/g					
	Uncert:			+/-0.0233						
	TPU:			+/-0.0228						
Potassium-40			UUI	0.00	pCi/g					
	Uncert:			+/-0.441						
	TPU:			+/-0.432						
Radium-226			U	0.0423	pCi/g					
	Uncert:			+/-0.0552						
	TPU:			+/-0.0541						
Silver-108m			U	0.0166	pCi/g					
	Uncert:			+/-0.0211						
	TPU:			+/-0.0207						
Thallium-208			U	0.017	pCi/g					
	Uncert:			+/-0.0243						
	TPU:			+/-0.0239						
Uranium-235			U	0.069	pCi/g					
	Uncert:			+/-0.122						
	TPU:			+/-0.120						
Uranium-238			U	0.0706	pCi/g					
	Uncert:			+/-0.406						
	TPU:			+/-0.398						
Rad Gas Flow										
Batch 377485										
QC1200731297 124488001 DUP										
Strontium-90		0.0628	U	0.0219	pCi/g	97		(0% - 100%)	JMB1	11/02/04 03:59

QC Summary

Workorder: 124488

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 377485										
	Uncert:	+/-0.0341		+/-0.0368						
	TPU:	+/-0.0369		+/-0.0373						
QC1200731299 LCS										
Strontium-90	3.88			4.11	pCi/g		106	(75%-125%)		11/02/04 09:52
	Uncert:			+/-0.302						
	TPU:			+/-1.49						
QC1200731296 MB										
Strontium-90			U	0.00336	pCi/g					11/02/04 03:59
	Uncert:			+/-0.0262						
	TPU:			+/-0.0262						
QC1200731298 124488001 MS										
Strontium-90	7.78	0.0628		7.13	pCi/g		91	(75%-125%)		11/02/04 09:52
	Uncert:	+/-0.0341		+/-0.569						
	TPU:	+/-0.0369		+/-2.69						
Rad Liquid Scintillation										
Batch 377502										
QC1200731578 124488008 DUP										
Tritium		8.20		11.2	pCi/g	31		(0% - 100%)	DAJ1	11/02/04 02:36
	Uncert:	+/-1.34		+/-1.51						
	TPU:	+/-1.44		+/-1.69						
QC1200731323 LCS										
Tritium	3.19			3.18	pCi/g		100	(75%-125%)		11/02/04 03:40
	Uncert:			+/-0.340						
	TPU:			+/-0.402						
QC1200731320 MB										
Tritium			U	0.0118	pCi/g					11/02/04 02:04
	Uncert:			+/-0.190						
	TPU:			+/-0.190						
QC1200731579 124488008 MS										
Tritium	13.5	8.20		24.6	pCi/g		121	(75%-125%)		11/02/04 03:08
	Uncert:	+/-1.34		+/-2.78						
	TPU:	+/-1.44		+/-3.23						

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

QC Summary

Workorder: **124488**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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GENERAL NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil and Concrete
PO# 002337
Work Order: 129311

January 31, 2005

Laboratory Identification:
General Engineering Laboratories, LLC

Mailing Address:
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:
2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:
(843) 556-8171

Summary:

Sample receipt
The samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 21, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures except in items of note located below.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
129311004	5000-0000-108-C-1C-02
129311005	5000-0000-108-C-1C-03
129311006	5000-0000-108-C-1C-04
129311007	5000-0000-108-C-2C-05
129311008	5000-0000-108-C-2C-06
129311009	5000-0000-108-C-2C-07
129311010	5000-0000-108-C-2C-08
129311011	5000-0000-108-C-2C-09
129311012	5000-0000-107-C-1C-02
129311013	5000-0000-107-C-1C-03
129311014	5000-0000-107-C-1C-04

129311015	5000-0000-107-C-2C-01
129311016	5000-0000-107-C-3C-01
129311017	5000-0000-107-C-3C-02
129311018	5000-0000-107-C-3C-03
129311019	5000-0000-107-C-3C-04
129311020	2000-0000-108-SI
129311021	5000-0000-107-SI
129311022	9312-0003-113S
129311023	9312-0003-114S
129311024	9312-0003-115S
129311025	9312-0003-116S
129311026	9801-0000-117S
129311027	9801-0000-122S

Items of Note:
There are not any items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Two concrete samples were analyzed for CHALL. One soil sample was analyzed for CHALL. Sixteen concrete samples were analyzed for CHGAM, Sr-90, and H-3. Eight soil samples were analyzed for CHGAM, H-3, and Sr-90.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

129311

No. 2005-00019

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 ATT: Cheryl Jones

Priority: ☐ 30 D. ☐ 15 D. ☒ 7 D.
Other:

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
001	5000-0000-108-C-1C-01	1/11/05	1055	CT	CR	BP				X				
004	5000-0000-108-C-1C-02	1/11/05	1055	CT	CR	BP	X	X	X					
005	5000-0000-108-C-1C-03	1/11/05	1055	CT	CR	BP	X	X	X					
006	5000-0000-108-C-1C-04	1/11/05	1055	CT	CR	BP	X	X	X					
007	5000-0000-108-C-2C-05	1/11/05	1125	CT	CR	BP	X	X	X					
008	5000-0000-108-C-2C-06	1/11/05	1125	CT	CR	BP	X	X	X					
009	5000-0000-108-C-2C-07	1/11/05	1125	CT	CR	BP	X	X	X					
010	5000-0000-108-C-2C-08	1/11/05	1125	CT	CR	BP	X	X	X					
011	5000-0000-108-C-2C-09	1/11/05	1125	CT	CR	BP	X	X	X					

NOTES: PO #: 002337 MSR #: 05-0189 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #
7921-8606-0725

Internal Container Temp.: 16 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature] Date/Time 1-20-05/ 0955	2) Received By [signature] Date/Time 1-21-05/1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2005-00018

129311.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 ATT: Cheryl Jones

Priority: ☐ 30 D. ☐ 15 D. ☒ 7 D.
Other:

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
002	5000-0000-107-C-1C-01	1/11/05	1320	CT	CR	BP				X				
012	5000-0000-107-C-1C-02	1/11/05	1320	CT	CR	BP	X	X	X					
013	5000-0000-107-C-1C-03	1/11/05	1320	CT	CR	BP	X	X	X					
014	5000-0000-107-C-1C-04	1/11/05	1320	CT	CR	BP	X	X	X					
015	5000-0000-107-C-2C-01	1/11/05	1340	CT	CR	BP	X	X	X					
016	5000-0000-107-C-3C-01	1/11/05	1350	CT	CR	BP	X	X	X					
017	5000-0000-107-C-3C-02	1/11/05	1350	CT	CR	BP	X	X	X					
018	5000-0000-107-C-3C-03	1/11/05	1350	CT	CR	BP	X	X	X					
019	5000-0000-107-C-3C-04	1/11/05	1350	CT	CR	BP	X	X	X					

NOTES: PO #: 002337 MSR #: 05-0189 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____

Bill of Lading #
7921-8606-0725

Internal Container Temp.: 16 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	1-20-05 0955	[signature]	1-21-05 1000
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2005-00020

129311%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Pete Hollenbeck 860-267-3923

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407 ATT: Cheryl Jones

Priority: ☐ 30 D. ☐ 15 D. ☒ 7 D.
Other:

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	H-3	Sr-90	CHALL			Comment, Preservation	Lab Sample ID
020	2000-0000-108-SI	1/11/05	1130	TS	CR	BP	X	X	X					
021	5000-0000-107-SI	1/11/05	1355	TS	CR	BP	X	X	X					
022	9312-0003-113S	1/11/05	1343	TS	CR	BP	X	X	X					
023	9312-0003-114S	1/11/05	1345	TS	CR	BP	X	X	X					
024	9312-0003-115S	1/11/05	1408	TS	CR	BP	X	X	X					
025	9312-0003-116S	1/11/05	1412	TS	CR	BP	X	X	X					
026	9801-0000-117S	1/11/05	1435	TS	CR	BP	X	X	X					
027	9801-0000-122S	1/11/05	1435	TS	CR	BP	X	X	X					
003	9801-0000-124	1/11/05	1105	TS	CR	BP				X				

NOTES: PO #: 002337 MSR #: 05-0189 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
7921 8606 0703
Bill of Lading #

Internal Container Temp.: ____ Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By [signature] Date/Time 1-20-05/ 0955	2) Received By [signature] Date/Time 1-21-05/ 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-21-05 1000

SDG#: MSR# 05-0189

Work Order Number: 129311

Shipping Container ID: _____ Chain of Custody # _____

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12.15 (7921 8606 0725)
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: _____
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape	____hazard labels
✓ custody seals	____appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: [signature] Date: 1-21-05

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GEN ING LABORATORIES, LLC

	PM use only
ent: Conn Yankee	SDG/ARCOC/Work Order: 12311
te Received: 1-21-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
ceived By: TH	1/25/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		✓		Circle Temp device serial # ice bags blue ice dry ice none other(describe) 15.C
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Internal Samples FedEx # 7921 8606 0725			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	100 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 1/21/05 Date

SAMPLE RECEIPT & REVIEW FORM

GEN LABORATORIES, LLC

ent: Conn Yankee	PM use only SDG/ARCOC/Work Order: 18931
te Received: 1-21-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
ceived By: TH	1/25/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		✓		Circle Temp device serial # ice bags blue ice dry ice none other(describe) 12
	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	Internal Samples Fed Ex# 7921 8606 0703			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	CPM 220			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CH Initials 1/21/05 Date

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0189

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396301
Prep Batch Number:	396346
Dry Soil Prep GL-RAD-A-021 Batch Number:	396344

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776364	Method Blank (MB)
1200776365	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776366	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776367	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128921003 (Seep #1 Weathered Rock).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396302
Prep Batch Number:	396346
Dry Soil Prep GL-RAD-A-021 Batch Number:	396344

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776368	Method Blank (MB)
1200776369	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776370	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776371	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128921003 (Seep #1 Weathered Rock).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396303
Prep Batch Number:	396353
Dry Soil Prep GL-RAD-A-021 Batch Number:	396351

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776372	Method Blank (MB)
1200776373	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776374	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776375	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 5.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 128921003 (Seep #1 Weathered Rock).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1200776372 (MB) was recounted due to high MDA.
Sample 1200776374 (Seep #1 Weathered Rock) was recounted due to low/high recovery.
The batch was recounted due to a high background count.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 1200776374 (Seep #1 Weathered Rock) was performed to fully separate counts in Regions of Interest which would have been biased.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	396375
Prep Batch Number:	396344

Sample ID	**Client ID**

129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
129311004	5000-0000-108-C-1C-02
129311005	5000-0000-108-C-1C-03
129311006	5000-0000-108-C-1C-04
129311007	5000-0000-108-C-2C-05
129311008	5000-0000-108-C-2C-06
129311009	5000-0000-108-C-2C-07
129311010	5000-0000-108-C-2C-08
129311011	5000-0000-108-C-2C-09
129311012	5000-0000-107-C-1C-02
129311013	5000-0000-107-C-1C-03
129311014	5000-0000-107-C-1C-04
129311015	5000-0000-107-C-2C-01
129311016	5000-0000-107-C-3C-01
129311017	5000-0000-107-C-3C-02
129311018	5000-0000-107-C-3C-03
129311019	5000-0000-107-C-3C-04
129311020	2000-0000-108-SI
1200776528	Method Blank (MB)
1200776529	129311001(5000-0000-108-C-1C-01) Sample Duplicate (DUP)
1200776530	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311001 (5000-0000-108-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due low abundance.	Niobium-94	129311001
UI	Data rejected due to low abundance.	Cesium-134	1200776529
			129311006
			129311013
		Cesium-137	129311019
		Niobium-94	1200776529

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	396377
Prep Batch Number:	396351

Sample ID	Client ID
129311021	5000-0000-107-SI
129311022	9312-0003-113S
129311023	9312-0003-114S
129311024	9312-0003-115S
129311025	9312-0003-116S
129311026	9801-0000-117S
129311027	9801-0000-122S
1200776535	Method Blank (MB)
1200776536	129311021(5000-0000-107-SI) Sample Duplicate (DUP)
1200776537	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311021 (5000-0000-107-SI).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-134	129311022
			129311025

Method/Analysis Information

Product:	**GFPC, Sr90, solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396625
Prep Batch Number:	396353
Dry Soil Prep GL-RAD-A-021 Batch Number:	396351

Sample ID	Client ID
129311020	2000-0000-108-SI
129311021	5000-0000-107-SI
129311022	9312-0003-113S
129311023	9312-0003-114S
129311024	9312-0003-115S
129311025	9312-0003-116S
129311026	9801-0000-117S
129311027	9801-0000-122S
1200777075	Method Blank (MB)

1200777076	129311023(9312-0003-114S) Sample Duplicate (DUP)
1200777077	129311023(9312-0003-114S) Matrix Spike (MS)
1200777078	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311023 (9312-0003-114S).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	396255

Sample ID	**Client ID**
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776281	Method Blank (MB)
1200776282	129311003(9801-0000-124) Sample Duplicate (DUP)
1200776283	129311003(9801-0000-124) Matrix Spike (MS)
1200776284	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311003 (9801-0000-124).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396265
Prep Batch Number:	396353
Dry Soil Prep GL-RAD-A-021 Batch Number:	396351

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776305	Method Blank (MB)
1200776308	Laboratory Control Sample (LCS)
1200779499	129311003(9801-0000-124) Sample Duplicate (DUP)
1200779500	129311003(9801-0000-124) Matrix Spike (MS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 2.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311003 (9801-0000-124).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396266
Prep Batch Number:	396353
Dry Soil Prep GL-RAD-A-021 Batch Number:	396351

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776309	Method Blank (MB)
1200776312	Laboratory Control Sample (LCS)
1200779497	129311003(9801-0000-124) Sample Duplicate (DUP)
1200779498	129311003(9801-0000-124) Matrix Spike (MS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 6.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311003 (9801-0000-124).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	396262

Sample ID	**Client ID**
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
129311004	5000-0000-108-C-1C-02
129311005	5000-0000-108-C-1C-03
129311006	5000-0000-108-C-1C-04
129311007	5000-0000-108-C-2C-05
129311008	5000-0000-108-C-2C-06
129311009	5000-0000-108-C-2C-07
129311010	5000-0000-108-C-2C-08
129311011	5000-0000-108-C-2C-09
129311012	5000-0000-107-C-1C-02
129311013	5000-0000-107-C-1C-03
129311014	5000-0000-107-C-1C-04
1200776297	Method Blank (MB)
1200776298	129311001(5000-0000-108-C-1C-01) Sample Duplicate (DUP)
1200776299	129311001(5000-0000-108-C-1C-01) Matrix Spike (MS)
1200776300	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311001 (5000-0000-108-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	396644

Sample ID	Client ID
129311015	5000-0000-107-C-2C-01
129311016	5000-0000-107-C-3C-01
129311017	5000-0000-107-C-3C-02
129311018	5000-0000-107-C-3C-03
129311019	5000-0000-107-C-3C-04
129311020	2000-0000-108-SI
129311021	5000-0000-107-SI
129311022	9312-0003-113S

129311023	9312-0003-114S
129311024	9312-0003-115S
129311025	9312-0003-116S
129311026	9801-0000-117S
129311027	9801-0000-122S
1200777112	Method Blank (MB)
1200777113	129311020(2000-0000-108-SI) Sample Duplicate (DUP)
1200777114	129311020(2000-0000-108-SI) Matrix Spike (MS)
1200777115	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311020 (2000-0000-108-SI).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 129311021 (5000-0000-107-SI) and 129311022 (9312-0003-113S) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	396263

Sample ID	**Client ID**
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
1200776301	Method Blank (MB)
1200776302	129311001(5000-0000-108-C-1C-01) Sample Duplicate (DUP)
1200776303	129311001(5000-0000-108-C-1C-01) Matrix Spike (MS)
1200776304	Laboratory Control Sample (LCS)

SOP Reference
Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 7.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311001 (5000-0000-108-C-1C-01).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	396624
Prep Batch Number:	396346
Dry Soil Prep GL-RAD-A-021 Batch Number:	396344

Sample ID	Client ID
129311001	5000-0000-108-C-1C-01
129311002	5000-0000-107-C-1C-01
129311003	9801-0000-124
129311004	5000-0000-108-C-1C-02
129311005	5000-0000-108-C-1C-03
129311006	5000-0000-108-C-1C-04
129311007	5000-0000-108-C-2C-05
129311008	5000-0000-108-C-2C-06
129311009	5000-0000-108-C-2C-07
129311010	5000-0000-108-C-2C-08
129311011	5000-0000-108-C-2C-09
129311012	5000-0000-107-C-1C-02
129311013	5000-0000-107-C-1C-03
129311014	5000-0000-107-C-1C-04
129311015	5000-0000-107-C-2C-01
129311016	5000-0000-107-C-3C-01
129311017	5000-0000-107-C-3C-02
129311018	5000-0000-107-C-3C-03
129311019	5000-0000-107-C-3C-04
1200777071	Method Blank (MB)
1200777072	129311005(5000-0000-108-C-1C-03) Sample Duplicate (DUP)
1200777073	129311005(5000-0000-108-C-1C-03) Matrix Spike (MS)
1200777074	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 129311005 (5000-0000-108-C-1C-03).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 177980 was generated due to RDL less than MDA. 1. Sample fails the required detection limit due to a low carrier yield. Sample volume was limited. Sample was counted for 500 minutes. Project manager was notified. 129311008 1. Reporting results

Qualifier information
Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Alcatel G Clone 2/4/05

Reviewer:_____

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 177980
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
396624	See Below		

Potentially affected work order(s)(SDG): 129311(MSR#05-0189)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample fails the required detection limit due to a low carrier yield. Sample volume was limited. Sample was counted for 500 minutes. Project manager was notified. 129311008	1. Reporting results

Originator's Name:
Wendy Hicks 04-FEB-05

Data Validator/Group Leader:
Heather Anderson 04-FEB-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0189 GEL Work Order: 129311

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-1C-01	Project:	YANK01304
Sample ID:	129311001	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.09%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00	+/-0.027	0.00	+/-0.027	0.0373	pCi/g		JAS1	01/31/05	1019	396301	1
Curium-242	U	0.0114	+/-0.0302	0.0171	+/-0.0303	0.0749	pCi/g						
Curium-243/244	U	-0.00661	+/-0.00917	0.0222	+/-0.00921	0.0817	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.00212	+/-0.0306	0.029	+/-0.0306	0.0712	pCi/g		JAS1	01/29/05	1507	396302	2
Plutonium-239/240	U	0.00477	+/-0.0191	0.0161	+/-0.0191	0.0453	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	1.50	+/-3.00	2.47	+/-3.00	5.09	pCi/g		JAS1	02/01/05	2138	396303	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.415	+/-0.179	0.0627	+/-0.176	0.138	pCi/g		AKB	01/26/05	0948	396375	4
Americium-241	U	-0.013	+/-0.114	0.0751	+/-0.112	0.157	pCi/g						
Bismuth-212		0.310	+/-0.156	0.136	+/-0.153	0.295	pCi/g						
Bismuth-214		0.641	+/-0.122	0.0339	+/-0.120	0.0731	pCi/g						
Cesium-134	U	0.0311	+/-0.0276	0.0213	+/-0.027	0.0463	pCi/g						
Cesium-137	U	0.0203	+/-0.0191	0.018	+/-0.0187	0.0391	pCi/g						
Cobalt-60	U	-0.00473	+/-0.0293	0.0204	+/-0.0287	0.0457	pCi/g						
Europium-152	U	0.0162	+/-0.064	0.0517	+/-0.0627	0.109	pCi/g						
Europium-154	U	0.0349	+/-0.058	0.0531	+/-0.0568	0.119	pCi/g						
Europium-155	U	0.018	+/-0.0577	0.0531	+/-0.0565	0.111	pCi/g						
Lead-212		0.407	+/-0.0655	0.0288	+/-0.0642	0.0605	pCi/g						
Lead-214		0.715	+/-0.112	0.0362	+/-0.109	0.0768	pCi/g						
Manganese-54	U	0.00429	+/-0.022	0.0186	+/-0.0216	0.0405	pCi/g						
Niobium-94	U	0.00	+/-0.0385	0.017	+/-0.0377	0.0367	pCi/g						
	UI												
Potassium-40		6.57	+/-0.947	0.174	+/-0.928	0.396	pCi/g						
Radium-226		0.641	+/-0.122	0.0339	+/-0.120	0.0731	pCi/g						
Silver-108m	U	0.00382	+/-0.0185	0.0165	+/-0.0181	0.0354	pCi/g						
Thallium-208		0.132	+/-0.035	0.0146	+/-0.0343	0.032	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	0.00481	+/-0.00573	0.00461	+/-0.0059	0.00961	pCi/g		LCW1	02/03/05	1541	396624	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	1.76	+/-1.51	1.19	+/-1.51	2.39	pCi/g		LAG1	01/26/05	2154	396262	6

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-1C-01
Sample ID: 129311001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	0.167	+/-0.166	0.135	+/-0.166	0.277	pCi/g		LAG1	01/26/05	0040	396263	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	1.51	+/-1.77	1.22	+/-1.77	2.48	pCi/g		DAJ1	02/03/05	0014	396265	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.101	+/-0.526	0.439	+/-0.526	0.897	pCi/g		DAJ1	02/01/05	0830	396266	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.232	+/-0.258	0.210	+/-0.258	0.432	pCi/g		EGD1	01/31/05	0239	396255	10
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	81	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	99	(15%-125%)

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-1C-01
Sample ID: 129311001

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,/			94						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 ((			78		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			59						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			67						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,A			87						

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-1C-01	Project:	YANK01304
Sample ID:	129311002	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	5.45%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)												
Americium-241	U	0.00	+/-0.0259	0.00	+/-0.0259	0.0359	pCi/g		JAS1 01/31/05	1019	396301	1
Curium-242	U	0.00	+/-0.0283	0.00	+/-0.0283	0.0391	pCi/g					
Curium-243/244	U	-0.00636	+/-0.00882	0.0214	+/-0.00886	0.0786	pCi/g					
Alphaspec Pu, Solid-TRU2,ALL2 (CT)												
Plutonium-238	U	0.0368	+/-0.042	0.0289	+/-0.0422	0.0745	pCi/g		JAS1 01/29/05	1507	396302	2
Plutonium-239/240	U	-0.0157	+/-0.0202	0.027	+/-0.0203	0.0708	pCi/g					
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)												
Plutonium-241	U	1.97	+/-3.07	2.52	+/-3.08	5.19	pCi/g		JAS1 02/01/05	2210	396303	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.393	+/-0.147	0.0519	+/-0.144	0.117	pCi/g		AKB 01/26/05	0949	396375	4
Americium-241	U	0.000449	+/-0.133	0.115	+/-0.130	0.243	pCi/g					
Bismuth-212		0.317	+/-0.286	0.117	+/-0.280	0.261	pCi/g					
Bismuth-214		0.367	+/-0.0738	0.0348	+/-0.0723	0.0753	pCi/g					
Cesium-134	U	0.0161	+/-0.0208	0.0193	+/-0.0204	0.0424	pCi/g					
Cesium-137	U	0.00333	+/-0.0292	0.0182	+/-0.0286	0.0396	pCi/g					
Cobalt-60	U	0.00478	+/-0.0216	0.0189	+/-0.0212	0.043	pCi/g					
Europium-152	U	-0.0283	+/-0.052	0.0415	+/-0.051	0.0897	pCi/g					
Europium-154	U	-0.0538	+/-0.0547	0.0371	+/-0.0536	0.0883	pCi/g					
Europium-155	U	0.0217	+/-0.0657	0.0519	+/-0.0644	0.109	pCi/g					
Lead-212		0.360	+/-0.0634	0.0264	+/-0.0621	0.0559	pCi/g					
Lead-214		0.404	+/-0.0817	0.0339	+/-0.0801	0.0725	pCi/g					
Manganese-54	U	0.00559	+/-0.0234	0.0179	+/-0.0229	0.0392	pCi/g					
Niobium-94	U	0.00438	+/-0.0173	0.0152	+/-0.017	0.0334	pCi/g					
Potassium-40		6.69	+/-0.933	0.148	+/-0.915	0.347	pCi/g					
Radium-226		0.367	+/-0.0738	0.0348	+/-0.0723	0.0753	pCi/g					
Silver-108m	U	0.014	+/-0.020	0.015	+/-0.0196	0.0326	pCi/g					
Thallium-208		0.102	+/-0.0408	0.0152	+/-0.040	0.0335	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00284	+/-0.00485	0.00394	+/-0.0049	0.00824	pCi/g		LCW1 02/03/05	1541	396624	5
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		2.67	+/-1.59	1.23	+/-1.60	2.46	pCi/g		LAG1 01/26/05	2226	396262	6
Liquid Scint C14, Solid-HTD2,ALL2 (CT)												

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-1C-01
Sample ID: 129311002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	0.0493	+/-0.166	0.138	+/-0.166	0.284	pCi/g		LAG1	01/26/05	0112	396263	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.26	+/-2.26	1.60	+/-2.26	3.25	pCi/g		DAJ1	02/01/05	1920	396265	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.206	+/-0.462	0.392	+/-0.462	0.800	pCi/g		DAJ1	02/01/05	0932	396266	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	-0.0815	+/-0.264	0.224	+/-0.264	0.461	pCi/g		EGD1	01/31/05	0311	396255	10
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	83	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	97	(15%-125%)

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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-1C-01
Sample ID: 129311002

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,/			94						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 ((			87		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			56						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			67						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,A			87						

Notes:
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9801-0000-124	Project:	YANK01304
Sample ID:	129311003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241		4.77	+/-0.568	0.0283	+/-0.902	0.104	pCi/g		JAS1	01/31/05	1019	396301	1
Curium-242	U	0.0192	+/-0.0376	0.00	+/-0.0377	0.0519	pCi/g						
Curium-243/244		1.14	+/-0.278	0.0201	+/-0.325	0.0878	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238		2.93	+/-0.272	0.0304	+/-0.384	0.0783	pCi/g		JAS1	01/29/05	1507	396302	2
Plutonium-239/240		1.12	+/-0.168	0.0215	+/-0.197	0.0605	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241		31.8	+/-3.82	2.38	+/-4.87	4.91	pCi/g		JAS1	02/01/05	2241	396303	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.719	+/-0.361	0.161	+/-0.354	0.329	pCi/g		AKB	01/26/05	0949	396375	4
Americium-241		2.06	+/-0.410	0.245	+/-0.401	0.496	pCi/g						
Bismuth-212	U	0.290	+/-0.304	0.290	+/-0.298	0.595	pCi/g						
Bismuth-214		0.892	+/-0.181	0.0872	+/-0.178	0.178	pCi/g						
Cesium-134		0.263	+/-0.0944	0.0421	+/-0.0925	0.0864	pCi/g						
Cesium-137		56.3	+/-4.73	0.0451	+/-4.64	0.092	pCi/g						
Cobalt-60		13.2	+/-0.857	0.0288	+/-0.840	0.0604	pCi/g						
Europium-152	U	0.130	+/-0.177	0.158	+/-0.173	0.321	pCi/g						
Europium-154		0.512	+/-0.183	0.0777	+/-0.179	0.163	pCi/g						
Europium-155	U	0.164	+/-0.174	0.150	+/-0.171	0.304	pCi/g						
Lead-212		0.649	+/-0.152	0.091	+/-0.149	0.184	pCi/g						
Lead-214		1.05	+/-0.258	0.113	+/-0.252	0.229	pCi/g						
Manganese-54	U	0.0313	+/-0.0456	0.0399	+/-0.0447	0.0817	pCi/g						
Niobium-94	U	0.0275	+/-0.0361	0.0323	+/-0.0354	0.0661	pCi/g						
Potassium-40		12.3	+/-1.25	0.192	+/-1.23	0.412	pCi/g						
Radium-226		0.892	+/-0.181	0.0872	+/-0.178	0.178	pCi/g						
Silver-108m	U	0.0463	+/-0.072	0.063	+/-0.0705	0.128	pCi/g						
Thallium-208		0.191	+/-0.0948	0.0478	+/-0.0929	0.0973	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		0.781	+/-0.0191	0.00394	+/-0.193	0.00817	pCi/g		LCW1	02/03/05	1541	396624	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	-0.0766	+/-1.44	1.21	+/-1.44	2.42	pCi/g		LAG1	01/26/05	2258	396262	6
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9801-0000-124
Sample ID: 129311003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint C14, Solid-HTD2,ALL2 (CT)												
Carbon-14		3.61	+/-0.255	0.131	+/-0.261	0.271	pCi/g		LAG1 01/26/05	0144	396263	7
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)												
Iron-55		5.57	+/-3.15	2.10	+/-3.15	4.26	pCi/g		DAJ1 02/01/05	2023	396265	8
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)												
Nickel-63		63.3	+/-1.38	0.419	+/-2.53	0.855	pCi/g		DAJ1 02/01/05	1028	396266	9
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)												
Technetium-99	U	0.00604	+/-0.277	0.233	+/-0.277	0.478	pCi/g		EGD1 01/31/05	0344	396255	10
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE EML HASL-300, Tc-02-RC Modified
11	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	63	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	98	(15%-125%)

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Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9801-0000-124
Sample ID: 129311003

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		Liquid Scint Pu241, Solid-TRU2,/			102						
Carrier/Tracer Recovery		GFPC, Sr90, solid-HTD2,ALL2 ((			93		(25%-125%)				
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-HTD2,Al			88						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-HTD2,Al			72						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-HTD2,A			81						

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-1C-02	Project:	YANK01304
Sample ID:	129311004	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	8.53%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.628	+/-0.146	0.0604	+/-0.143	0.129	pCi/g		AKB 01/26/05	0950	396375	1
Americium-241	U	0.0298	+/-0.0704	0.0615	+/-0.069	0.127	pCi/g					
Bismuth-212		0.447	+/-0.209	0.118	+/-0.205	0.252	pCi/g					
Bismuth-214		1.04	+/-0.146	0.0312	+/-0.143	0.0657	pCi/g					
Cesium-134	U	0.0408	+/-0.0221	0.0208	+/-0.0216	0.0439	pCi/g					
Cesium-137	U	-0.00865	+/-0.0195	0.0161	+/-0.0191	0.0342	pCi/g					
Cobalt-60	U	0.0139	+/-0.0196	0.0174	+/-0.0192	0.0377	pCi/g					
Europium-152	U	0.0177	+/-0.0533	0.0473	+/-0.0522	0.0986	pCi/g					
Europium-154	U	0.00837	+/-0.0593	0.0498	+/-0.0581	0.107	pCi/g					
Europium-155	U	0.053	+/-0.0587	0.0551	+/-0.0575	0.114	pCi/g					
Lead-212		0.485	+/-0.0612	0.0295	+/-0.060	0.0609	pCi/g					
Lead-214		1.31	+/-0.154	0.0309	+/-0.151	0.0649	pCi/g					
Manganese-54	U	0.0107	+/-0.0198	0.0172	+/-0.0194	0.0365	pCi/g					
Niobium-94	U	0.00034	+/-0.0176	0.015	+/-0.0172	0.0317	pCi/g					
Potassium-40		7.31	+/-0.878	0.152	+/-0.860	0.333	pCi/g					
Radium-226		1.04	+/-0.146	0.0312	+/-0.143	0.0657	pCi/g					
Silver-108m	U	0.00596	+/-0.0161	0.0141	+/-0.0158	0.0296	pCi/g					
Thallium-208		0.158	+/-0.0424	0.0163	+/-0.0416	0.0344	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.00199	+/-0.00446	0.00385	+/-0.0045	0.00807	pCi/g		LCW1 02/03/05	1541	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		12.4	+/-2.06	1.30	+/-2.20	2.59	pCi/g		LAG1 01/26/05	2330	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-1C-02
Sample ID: 129311004

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	77	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-1C-03	Project:	YANK01304
Sample ID:	129311005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	7.22%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.468	+/-0.123	0.0515	+/-0.121	0.110	pCi/g		AKB 01/26/05	1122	396375	1
Americium-241	U	0.00311	+/-0.0834	0.0689	+/-0.0817	0.142	pCi/g					
Bismuth-212		0.299	+/-0.215	0.103	+/-0.211	0.221	pCi/g					
Bismuth-214		0.771	+/-0.104	0.0241	+/-0.101	0.0512	pCi/g					
Cesium-134	U	0.0163	+/-0.0176	0.0166	+/-0.0172	0.0353	pCi/g					
Cesium-137	U	-0.00797	+/-0.0161	0.0134	+/-0.0157	0.0285	pCi/g					
Cobalt-60	U	0.0192	+/-0.0179	0.0168	+/-0.0176	0.0365	pCi/g					
Europium-152	U	-0.0147	+/-0.0456	0.0385	+/-0.0447	0.0805	pCi/g					
Europium-154	U	-0.0313	+/-0.0474	0.0372	+/-0.0465	0.082	pCi/g					
Europium-155	U	0.0792	+/-0.0503	0.0414	+/-0.0493	0.0854	pCi/g					
Lead-212		0.433	+/-0.0575	0.0249	+/-0.0563	0.0513	pCi/g					
Lead-214		0.862	+/-0.108	0.0267	+/-0.106	0.0558	pCi/g					
Manganese-54	U	-0.00121	+/-0.0165	0.0138	+/-0.0161	0.0296	pCi/g					
Niobium-94	U	0.00502	+/-0.0148	0.0131	+/-0.0145	0.0278	pCi/g					
Potassium-40		7.39	+/-0.770	0.127	+/-0.755	0.281	pCi/g					
Radium-226		0.771	+/-0.104	0.0241	+/-0.101	0.0512	pCi/g					
Silver-108m	U	0.00925	+/-0.0185	0.0124	+/-0.0182	0.0261	pCi/g					
Thallium-208		0.139	+/-0.0395	0.0135	+/-0.0387	0.0286	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00202	+/-0.00648	0.00535	+/-0.00652	0.0112	pCi/g		LCW1 02/03/05	1542	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		9.55	+/-1.80	1.17	+/-1.88	2.34	pCi/g		LAG1 01/27/05	0002	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-1C-03
Sample ID: 129311005

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	60	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-1C-04	Project:	YANK01304
Sample ID:	129311006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	7.46%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.327	+/-0.141	0.0669	+/-0.138	0.148	pCi/g		AKB 01/26/05	1149	396375	1
Americium-241	U	0.0191	+/-0.101	0.0836	+/-0.0992	0.174	pCi/g					
Bismuth-212		0.381	+/-0.248	0.120	+/-0.243	0.266	pCi/g					
Bismuth-214		0.482	+/-0.0936	0.038	+/-0.0918	0.0818	pCi/g					
Cesium-134	U	0.00	+/-0.0291	0.0222	+/-0.0285	0.0485	pCi/g					
	UI											
Cesium-137	U	0.025	+/-0.0275	0.0169	+/-0.027	0.0372	pCi/g					
Cobalt-60	U	0.0293	+/-0.0222	0.0225	+/-0.0218	0.0505	pCi/g					
Europium-152	U	0.0318	+/-0.0535	0.0495	+/-0.0524	0.105	pCi/g					
Europium-154	U	-0.0048	+/-0.0805	0.0579	+/-0.0789	0.131	pCi/g					
Europium-155	U	0.0235	+/-0.0655	0.0591	+/-0.0642	0.123	pCi/g					
Lead-212		0.457	+/-0.0739	0.0284	+/-0.0724	0.0597	pCi/g					
Lead-214		0.606	+/-0.110	0.032	+/-0.108	0.0687	pCi/g					
Manganese-54	U	0.00331	+/-0.0249	0.0209	+/-0.0244	0.0455	pCi/g					
Niobium-94	U	0.00106	+/-0.0186	0.0157	+/-0.0183	0.0345	pCi/g					
Potassium-40		7.77	+/-1.10	0.135	+/-1.08	0.326	pCi/g					
Radium-226		0.482	+/-0.0936	0.038	+/-0.0918	0.0818	pCi/g					
Silver-108m	U	0.00963	+/-0.0179	0.0163	+/-0.0175	0.0351	pCi/g					
Thallium-208		0.168	+/-0.0482	0.0177	+/-0.0473	0.0384	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.000522	+/-0.00428	0.00362	+/-0.00428	0.00754	pCi/g		LCW1 02/03/05	1542	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		11.7	+/-2.04	1.30	+/-2.17	2.60	pCi/g		LAG1 01/27/05	0034	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-1C-04
Sample ID: 129311006

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	98	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-2C-05	Project:	YANK01304
Sample ID:	129311007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.05%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.425	+/-0.169	0.0733	+/-0.166	0.163	pCi/g		AKB 01/26/05	1149	396375	1
Americium-241	U	-0.305	+/-0.202	0.146	+/-0.198	0.305	pCi/g					
Bismuth-212	U	0.135	+/-0.208	0.191	+/-0.204	0.413	pCi/g					
Bismuth-214		0.552	+/-0.115	0.0389	+/-0.113	0.0848	pCi/g					
Cesium-134	U	0.0164	+/-0.0314	0.0283	+/-0.0308	0.0613	pCi/g					
Cesium-137	U	0.0108	+/-0.0234	0.0213	+/-0.0229	0.0466	pCi/g					
Cobalt-60	U	-0.00117	+/-0.0258	0.021	+/-0.0253	0.0485	pCi/g					
Europium-152	U	-0.0263	+/-0.0694	0.0574	+/-0.068	0.123	pCi/g					
Europium-154	U	0.0593	+/-0.0539	0.0637	+/-0.0528	0.145	pCi/g					
Europium-155	U	0.0544	+/-0.400	0.0717	+/-0.392	0.150	pCi/g					
Lead-212		0.397	+/-0.0769	0.0354	+/-0.0753	0.0744	pCi/g					
Lead-214		0.480	+/-0.111	0.0421	+/-0.108	0.0899	pCi/g					
Manganese-54	U	0.00713	+/-0.0243	0.0214	+/-0.0238	0.0472	pCi/g					
Niobium-94	U	0.0216	+/-0.0223	0.0211	+/-0.0218	0.0458	pCi/g					
Potassium-40		8.07	+/-1.13	0.192	+/-1.10	0.448	pCi/g					
Radium-226		0.552	+/-0.115	0.0389	+/-0.113	0.0848	pCi/g					
Silver-108m	U	-0.0158	+/-0.0238	0.0186	+/-0.0233	0.0403	pCi/g					
Thallium-208		0.187	+/-0.0494	0.0214	+/-0.0484	0.0466	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.00245	+/-0.00515	0.00443	+/-0.0052	0.00926	pCi/g		LCW1 02/03/05	1542	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		4.36	+/-1.78	1.33	+/-1.80	2.65	pCi/g		LAG1 01/27/05	0106	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000–0000–108–C–2C–05
Sample ID: 129311007

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	75	(25%–125%)

Notes:
The Qualifiers in this report are defined as follows :

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-2C-06	Project:	YANK01304
Sample ID:	129311008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.24%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.320	+/-0.181	0.0683	+/-0.178	0.148	pCi/g		AKB 01/26/05	1150	396375	1
Americium-241	U	0.045	+/-0.0994	0.0708	+/-0.0974	0.148	pCi/g					
Bismuth-212		0.351	+/-0.235	0.131	+/-0.230	0.284	pCi/g					
Bismuth-214		0.514	+/-0.100	0.0358	+/-0.098	0.0766	pCi/g					
Cesium-134	U	0.0338	+/-0.0254	0.0207	+/-0.0249	0.0448	pCi/g					
Cesium-137	U	0.00863	+/-0.0197	0.018	+/-0.0193	0.0388	pCi/g					
Cobalt-60	U	0.0207	+/-0.0195	0.0192	+/-0.0191	0.043	pCi/g					
Europium-152	U	-0.0334	+/-0.0498	0.0418	+/-0.0488	0.0892	pCi/g					
Europium-154	U	-0.017	+/-0.0584	0.0475	+/-0.0572	0.108	pCi/g					
Europium-155	U	-0.0111	+/-0.0577	0.0523	+/-0.0565	0.109	pCi/g					
Lead-212		0.397	+/-0.0659	0.0277	+/-0.0646	0.0581	pCi/g					
Lead-214		0.607	+/-0.0948	0.0321	+/-0.0929	0.0683	pCi/g					
Manganese-54	U	0.0134	+/-0.0213	0.0193	+/-0.0208	0.0418	pCi/g					
Niobium-94	U	-0.0268	+/-0.0179	0.013	+/-0.0176	0.0287	pCi/g					
Potassium-40		7.66	+/-1.01	0.133	+/-0.991	0.313	pCi/g					
Radium-226		0.514	+/-0.100	0.0358	+/-0.098	0.0766	pCi/g					
Silver-108m	U	-0.0102	+/-0.0165	0.0134	+/-0.0162	0.029	pCi/g					
Thallium-208		0.128	+/-0.0458	0.0157	+/-0.0449	0.0341	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00176	+/-0.00922	0.00767	+/-0.00926	0.0159	pCi/g		LCW1 02/03/05	1542	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		5.08	+/-1.61	1.16	+/-1.64	2.32	pCi/g		LAG1 01/27/05	0138	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-2C-06
Sample ID: 129311008

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	51	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-2C-07	Project:	YANK01304
Sample ID:	129311009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.96%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.423	+/-0.167	0.0584	+/-0.164	0.131	pCi/g		AKB 01/26/05	1150	396375	1
Americium-241	U	-0.00135	+/-0.132	0.107	+/-0.129	0.225	pCi/g					
Bismuth-212		0.383	+/-0.304	0.113	+/-0.298	0.254	pCi/g					
Bismuth-214		0.569	+/-0.119	0.0338	+/-0.116	0.0735	pCi/g					
Cesium-134	U	0.0224	+/-0.0247	0.0228	+/-0.0242	0.0496	pCi/g					
Cesium-137	U	-0.0123	+/-0.0213	0.0169	+/-0.0209	0.0371	pCi/g					
Cobalt-60	U	-0.0016	+/-0.0246	0.0202	+/-0.0241	0.0459	pCi/g					
Europium-152	U	0.00476	+/-0.0549	0.0468	+/-0.0538	0.100	pCi/g					
Europium-154	U	-0.0277	+/-0.0748	0.0491	+/-0.0733	0.113	pCi/g					
Europium-155	U	0.0383	+/-0.0613	0.0591	+/-0.0601	0.124	pCi/g					
Lead-212		0.470	+/-0.0833	0.0438	+/-0.0816	0.0906	pCi/g					
Lead-214		0.743	+/-0.122	0.0348	+/-0.120	0.0744	pCi/g					
Manganese-54	U	-0.00389	+/-0.0233	0.0189	+/-0.0228	0.0415	pCi/g					
Niobium-94	U	0.00157	+/-0.0179	0.0153	+/-0.0175	0.0336	pCi/g					
Potassium-40		8.73	+/-1.11	0.145	+/-1.08	0.344	pCi/g					
Radium-226		0.569	+/-0.119	0.0338	+/-0.116	0.0735	pCi/g					
Silver-108m	U	0.000748	+/-0.018	0.0161	+/-0.0177	0.0347	pCi/g					
Thallium-208		0.140	+/-0.0482	0.0185	+/-0.0473	0.0401	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.00245	+/-0.0054	0.00464	+/-0.00547	0.00969	pCi/g		LCW1 02/04/05	0116	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.83	+/-1.54	1.22	+/-1.54	2.44	pCi/g		LAG1 01/27/05	0210	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-2C-07
Sample ID: 129311009

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	65	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-2C-08	Project:	YANK01304
Sample ID:	129311010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.485	+/-0.187	0.0877	+/-0.183	0.190	pCi/g		AKB 01/26/05	1151	396375	1
Americium-241	U	-0.0204	+/-0.0574	0.0349	+/-0.0563	0.0721	pCi/g					
Bismuth-212		0.535	+/-0.297	0.182	+/-0.292	0.392	pCi/g					
Bismuth-214		0.949	+/-0.162	0.0418	+/-0.159	0.0897	pCi/g					
Cesium-134	U	0.0408	+/-0.0374	0.0263	+/-0.0367	0.0568	pCi/g					
Cesium-137	U	0.0286	+/-0.0351	0.023	+/-0.0344	0.0496	pCi/g					
Cobalt-60	U	0.00219	+/-0.0254	0.0218	+/-0.0249	0.0491	pCi/g					
Europium-152	U	0.0109	+/-0.0655	0.0575	+/-0.0642	0.122	pCi/g					
Europium-154	U	-0.0139	+/-0.0666	0.0549	+/-0.0653	0.125	pCi/g					
Europium-155	U	-0.0318	+/-0.0602	0.0553	+/-0.059	0.115	pCi/g					
Lead-212		0.512	+/-0.0845	0.032	+/-0.0828	0.0671	pCi/g					
Lead-214		1.11	+/-0.167	0.0402	+/-0.164	0.0852	pCi/g					
Manganese-54	U	-0.0149	+/-0.0257	0.0204	+/-0.0252	0.0446	pCi/g					
Niobium-94	U	-0.0199	+/-0.0231	0.0181	+/-0.0227	0.0395	pCi/g					
Potassium-40		7.80	+/-0.973	0.182	+/-0.953	0.419	pCi/g					
Radium-226		0.949	+/-0.162	0.0418	+/-0.159	0.0897	pCi/g					
Silver-108m	U	-0.00186	+/-0.020	0.0179	+/-0.0196	0.0383	pCi/g					
Thallium-208		0.175	+/-0.0604	0.0206	+/-0.0592	0.0444	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.00148	+/-0.00437	0.00374	+/-0.00439	0.00782	pCi/g		LCW1 02/04/05	0116	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.87	+/-1.70	1.35	+/-1.71	2.71	pCi/g		LAG1 01/27/05	0242	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-2C-08
Sample ID: 129311010

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	74	(25%-125%)

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-108-C-2C-09	Project:	YANK01304
Sample ID:	129311011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.57%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.385	+/-0.133	0.0566	+/-0.131	0.126	pCi/g		AKB 01/26/05	1438	396375	1
Americium-241	U	0.0293	+/-0.137	0.115	+/-0.134	0.240	pCi/g					
Bismuth-212		0.309	+/-0.285	0.123	+/-0.279	0.271	pCi/g					
Bismuth-214		0.718	+/-0.118	0.0347	+/-0.116	0.0748	pCi/g					
Cesium-134	U	0.0423	+/-0.0309	0.0201	+/-0.0303	0.0439	pCi/g					
Cesium-137	U	0.00707	+/-0.0192	0.0172	+/-0.0188	0.0376	pCi/g					
Cobalt-60	U	0.0305	+/-0.0384	0.0169	+/-0.0376	0.0388	pCi/g					
Europium-152	U	0.0253	+/-0.0532	0.0474	+/-0.0521	0.101	pCi/g					
Europium-154	U	-0.0352	+/-0.0609	0.046	+/-0.0597	0.106	pCi/g					
Europium-155	U	0.00416	+/-0.0599	0.0571	+/-0.0587	0.119	pCi/g					
Lead-212		0.436	+/-0.0701	0.0275	+/-0.0687	0.0579	pCi/g					
Lead-214		0.847	+/-0.131	0.0311	+/-0.129	0.0666	pCi/g					
Manganese-54	U	0.00329	+/-0.0227	0.0193	+/-0.0222	0.042	pCi/g					
Niobium-94	U	0.00595	+/-0.0164	0.0146	+/-0.016	0.032	pCi/g					
Potassium-40		6.83	+/-0.878	0.142	+/-0.861	0.335	pCi/g					
Radium-226		0.718	+/-0.118	0.0347	+/-0.116	0.0748	pCi/g					
Silver-108m	U	-0.0127	+/-0.0165	0.0138	+/-0.0162	0.0299	pCi/g					
Thallium-208		0.158	+/-0.0386	0.0147	+/-0.0378	0.0324	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00269	+/-0.00348	0.00279	+/-0.00354	0.00586	pCi/g		LCW1 02/04/05	0246	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.96	+/-1.61	1.28	+/-1.62	2.55	pCi/g		LAG1 01/27/05	0313	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-108-C-2C-09
Sample ID: 129311011

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	92	(25%-125%)

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-1C-02	Project:	YANK01304
Sample ID:	129311012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	5.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.390	+/-0.131	0.0497	+/-0.129	0.113	pCi/g		AKB 01/26/05	1151	396375	1
Americium-241	U	-0.0022	+/-0.0814	0.0654	+/-0.0798	0.138	pCi/g					
Bismuth-212	U	0.218	+/-0.155	0.152	+/-0.152	0.330	pCi/g					
Bismuth-214		0.301	+/-0.0825	0.0271	+/-0.0808	0.0599	pCi/g					
Cesium-134	U	0.0219	+/-0.0225	0.0211	+/-0.0221	0.0461	pCi/g					
Cesium-137	U	0.00428	+/-0.0154	0.0138	+/-0.0151	0.0308	pCi/g					
Cobalt-60	U	0.0219	+/-0.0181	0.0187	+/-0.0177	0.0426	pCi/g					
Europium-152	U	0.00574	+/-0.0505	0.0433	+/-0.0494	0.093	pCi/g					
Europium-154	U	0.0588	+/-0.0602	0.0582	+/-0.059	0.130	pCi/g					
Europium-155	U	0.0179	+/-0.0532	0.0506	+/-0.0521	0.106	pCi/g					
Lead-212		0.392	+/-0.0626	0.0245	+/-0.0613	0.052	pCi/g					
Lead-214		0.436	+/-0.0991	0.0292	+/-0.0971	0.063	pCi/g					
Manganese-54	U	0.0105	+/-0.0187	0.0169	+/-0.0184	0.0372	pCi/g					
Niobium-94	U	0.0355	+/-0.0316	0.0167	+/-0.031	0.0363	pCi/g					
Potassium-40		7.14	+/-0.987	0.135	+/-0.967	0.322	pCi/g					
Radium-226		0.301	+/-0.0825	0.0271	+/-0.0808	0.0599	pCi/g					
Silver-108m	U	0.00362	+/-0.0161	0.0147	+/-0.0158	0.0319	pCi/g					
Thallium-208		0.0977	+/-0.0336	0.0152	+/-0.0329	0.0334	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.000846	+/-0.00393	0.00333	+/-0.00393	0.00696	pCi/g		LCW1 02/04/05	0246	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.49	+/-1.62	1.30	+/-1.63	2.61	pCi/g		LAG1 01/27/05	0552	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-1C-02
Sample ID: 129311012

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	94	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-1C-03	Project:	YANK01304
Sample ID:	129311013	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	5.26%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.751	+/-0.174	0.0722	+/-0.171	0.161	pCi/g		AKB 01/26/05	1155	396375	1
Americium-241	U	0.0771	+/-0.126	0.105	+/-0.123	0.220	pCi/g					
Bismuth-212	U	0.281	+/-0.411	0.174	+/-0.403	0.380	pCi/g					
Bismuth-214		0.615	+/-0.122	0.0419	+/-0.119	0.0909	pCi/g					
Cesium-134	U	0.00	+/-0.0432	0.0295	+/-0.0423	0.0639	pCi/g					
	UI											
Cesium-137	U	0.00943	+/-0.0302	0.0235	+/-0.0296	0.0512	pCi/g					
Cobalt-60	U	-0.0104	+/-0.0313	0.0249	+/-0.0307	0.0562	pCi/g					
Europium-152	U	-0.0209	+/-0.0749	0.0627	+/-0.0734	0.134	pCi/g					
Europium-154	U	-0.0133	+/-0.0844	0.0695	+/-0.0827	0.156	pCi/g					
Europium-155	U	0.0579	+/-0.0836	0.075	+/-0.0819	0.157	pCi/g					
Lead-212		0.545	+/-0.0972	0.0389	+/-0.0952	0.0817	pCi/g					
Lead-214		0.677	+/-0.121	0.0472	+/-0.118	0.100	pCi/g					
Manganese-54	U	0.013	+/-0.0293	0.0257	+/-0.0287	0.0558	pCi/g					
Niobium-94	U	0.00443	+/-0.0254	0.022	+/-0.0249	0.0477	pCi/g					
Potassium-40		9.21	+/-1.41	0.220	+/-1.38	0.503	pCi/g					
Radium-226		0.615	+/-0.122	0.0419	+/-0.119	0.0909	pCi/g					
Silver-108m	U	0.00528	+/-0.0249	0.0213	+/-0.0244	0.0458	pCi/g					
Thallium-208		0.255	+/-0.0558	0.0217	+/-0.0547	0.0472	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.0025	+/-0.00463	0.00377	+/-0.00469	0.00789	pCi/g		LCW1 02/04/05	0246	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		3.98	+/-1.58	1.17	+/-1.59	2.34	pCi/g		LAG1 01/27/05	0624	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-1C-03
Sample ID: 129311013

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	75	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-1C-04	Project:	YANK01304
Sample ID:	129311014	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.84%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.413	+/-0.140	0.0373	+/-0.137	0.0869	pCi/g		AKB 01/26/05	1152	396375	1
Americium-241	U	-0.0785	+/-0.112	0.0909	+/-0.110	0.191	pCi/g					
Bismuth-212		0.487	+/-0.226	0.113	+/-0.222	0.249	pCi/g					
Bismuth-214		0.340	+/-0.0888	0.0272	+/-0.0871	0.0595	pCi/g					
Cesium-134	U	0.0208	+/-0.0203	0.0191	+/-0.0199	0.0418	pCi/g					
Cesium-137	U	0.0184	+/-0.0227	0.0165	+/-0.0223	0.0359	pCi/g					
Cobalt-60	U	-0.0109	+/-0.0244	0.0156	+/-0.0239	0.0361	pCi/g					
Europium-152	U	0.0304	+/-0.0429	0.0409	+/-0.0421	0.0875	pCi/g					
Europium-154	U	-0.0276	+/-0.0521	0.0393	+/-0.0511	0.0917	pCi/g					
Europium-155	U	0.0382	+/-0.0545	0.0519	+/-0.0534	0.109	pCi/g					
Lead-212		0.400	+/-0.0646	0.0277	+/-0.0633	0.058	pCi/g					
Lead-214		0.411	+/-0.0888	0.0286	+/-0.087	0.0613	pCi/g					
Manganese-54	U	-0.00199	+/-0.0197	0.0161	+/-0.0193	0.0354	pCi/g					
Niobium-94	U	-0.00528	+/-0.0179	0.0146	+/-0.0176	0.0319	pCi/g					
Potassium-40		7.24	+/-0.899	0.174	+/-0.881	0.397	pCi/g					
Radium-226		0.340	+/-0.0888	0.0272	+/-0.0871	0.0595	pCi/g					
Silver-108m	U	-0.00914	+/-0.0145	0.012	+/-0.0142	0.0262	pCi/g					
Thallium-208		0.118	+/-0.0376	0.0148	+/-0.0368	0.0322	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00289	+/-0.004	0.00323	+/-0.00406	0.00674	pCi/g		LCW1 02/04/05	0423	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		2.67	+/-1.63	1.26	+/-1.64	2.53	pCi/g		LAG1 01/27/05	0656	396262	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-1C-04
Sample ID: 129311014

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	92	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-2C-01	Project:	YANK01304
Sample ID:	129311015	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	5.04%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.494	+/-0.181	0.0669	+/-0.178	0.148	pCi/g		AKB 01/26/05	1153	396375	1
Americium-241	U	0.0569	+/-0.146	0.0923	+/-0.143	0.192	pCi/g					
Bismuth-212	U	0.309	+/-0.228	0.142	+/-0.223	0.312	pCi/g					
Bismuth-214		0.391	+/-0.105	0.0403	+/-0.103	0.0865	pCi/g					
Cesium-134	U	0.0373	+/-0.028	0.0273	+/-0.0275	0.0586	pCi/g					
Cesium-137	U	-0.00311	+/-0.0224	0.0187	+/-0.0219	0.0408	pCi/g					
Cobalt-60	U	0.00943	+/-0.0243	0.0214	+/-0.0238	0.0482	pCi/g					
Europium-152	U	0.0113	+/-0.0576	0.0524	+/-0.0564	0.111	pCi/g					
Europium-154	U	0.00352	+/-0.072	0.0606	+/-0.0706	0.136	pCi/g					
Europium-155	U	-0.0166	+/-0.0598	0.0541	+/-0.0586	0.113	pCi/g					
Lead-212		0.453	+/-0.0781	0.0297	+/-0.0765	0.0625	pCi/g					
Lead-214		0.421	+/-0.101	0.0338	+/-0.0986	0.0723	pCi/g					
Manganese-54	U	0.00746	+/-0.0231	0.0208	+/-0.0227	0.0453	pCi/g					
Niobium-94	U	-0.00675	+/-0.0193	0.0155	+/-0.0189	0.0342	pCi/g					
Potassium-40		8.28	+/-1.08	0.165	+/-1.06	0.383	pCi/g					
Radium-226		0.391	+/-0.105	0.0403	+/-0.103	0.0865	pCi/g					
Silver-108m	U	-0.0139	+/-0.0205	0.017	+/-0.0201	0.0365	pCi/g					
Thallium-208		0.129	+/-0.0449	0.0199	+/-0.044	0.043	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00095	+/-0.00583	0.00486	+/-0.00584	0.0101	pCi/g		LCW1 02/04/05	0423	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	-0.0373	+/-1.76	1.48	+/-1.76	2.96	pCi/g		ATH1 01/28/05	0319	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-2C-01
Sample ID: 129311015

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	73	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-3C-01	Project:	YANK01304
Sample ID:	129311016	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.365	+/-0.131	0.0566	+/-0.129	0.126	pCi/g		AKB 01/26/05	1156	396375	1
Americium-241	U	-0.0349	+/-0.0846	0.0688	+/-0.0829	0.144	pCi/g					
Bismuth-212		0.411	+/-0.179	0.133	+/-0.176	0.290	pCi/g					
Bismuth-214		0.388	+/-0.0929	0.0268	+/-0.0911	0.059	pCi/g					
Cesium-134	U	0.0178	+/-0.027	0.0216	+/-0.0265	0.0468	pCi/g					
Cesium-137	U	-0.00171	+/-0.0196	0.0164	+/-0.0192	0.0358	pCi/g					
Cobalt-60	U	0.00401	+/-0.0188	0.0163	+/-0.0185	0.0375	pCi/g					
Europium-152	U	-0.0223	+/-0.0498	0.0429	+/-0.0488	0.092	pCi/g					
Europium-154	U	-0.0221	+/-0.0596	0.0469	+/-0.0584	0.107	pCi/g					
Europium-155	U	0.033	+/-0.055	0.0515	+/-0.0539	0.108	pCi/g					
Lead-212		0.443	+/-0.0657	0.0256	+/-0.0644	0.0541	pCi/g					
Lead-214		0.395	+/-0.0924	0.0348	+/-0.0906	0.074	pCi/g					
Manganese-54	U	0.00445	+/-0.0188	0.0161	+/-0.0185	0.0355	pCi/g					
Niobium-94	U	0.00353	+/-0.018	0.0155	+/-0.0176	0.0337	pCi/g					
Potassium-40		6.73	+/-0.964	0.147	+/-0.945	0.342	pCi/g					
Radium-226		0.388	+/-0.0929	0.0268	+/-0.0911	0.059	pCi/g					
Silver-108m	U	0.0105	+/-0.0164	0.0153	+/-0.0161	0.0328	pCi/g					
Thallium-208		0.157	+/-0.0387	0.0179	+/-0.0379	0.0387	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00411	+/-0.00625	0.00509	+/-0.00644	0.0106	pCi/g		LCW1 02/04/05	0432	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		4.13	+/-1.92	1.46	+/-1.94	2.92	pCi/g		ATH1 01/28/05	0351	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-3C-01
Sample ID: 129311016

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	61	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-3C-02	Project:	YANK01304
Sample ID:	129311017	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	6.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.418	+/-0.148	0.0444	+/-0.145	0.0964	pCi/g		AKB 01/26/05	1156	396375	1
Americium-241	U	-0.0355	+/-0.0937	0.0764	+/-0.0918	0.160	pCi/g					
Bismuth-212	U	0.114	+/-0.193	0.0997	+/-0.189	0.215	pCi/g					
Bismuth-214		0.291	+/-0.0809	0.0248	+/-0.0793	0.053	pCi/g					
Cesium-134	U	0.0211	+/-0.0216	0.0148	+/-0.0211	0.0319	pCi/g					
Cesium-137	U	0.00749	+/-0.0158	0.0144	+/-0.0155	0.0307	pCi/g					
Cobalt-60	U	-0.00893	+/-0.0174	0.0114	+/-0.017	0.0256	pCi/g					
Europium-152	U	0.0495	+/-0.042	0.0397	+/-0.0411	0.0836	pCi/g					
Europium-154	U	-0.0171	+/-0.0452	0.0368	+/-0.0443	0.0815	pCi/g					
Europium-155	U	-0.0132	+/-0.054	0.0481	+/-0.053	0.100	pCi/g					
Lead-212		0.401	+/-0.0584	0.0232	+/-0.0573	0.0485	pCi/g					
Lead-214		0.343	+/-0.0738	0.0265	+/-0.0724	0.056	pCi/g					
Manganese-54	U	0.000757	+/-0.0152	0.013	+/-0.0149	0.0281	pCi/g					
Niobium-94	U	0.00631	+/-0.0144	0.013	+/-0.0141	0.0277	pCi/g					
Potassium-40		7.95	+/-0.824	0.107	+/-0.808	0.242	pCi/g					
Radium-226		0.291	+/-0.0809	0.0248	+/-0.0793	0.053	pCi/g					
Silver-108m	U	-0.00902	+/-0.0136	0.0111	+/-0.0134	0.0237	pCi/g					
Thallium-208		0.109	+/-0.0305	0.0135	+/-0.0299	0.0289	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	3.570E-05	+/-0.00315	0.00264	+/-0.00315	0.00554	pCi/g		LCW1 02/04/05	0432	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		8.47	+/-2.12	1.49	+/-2.22	2.97	pCi/g		ATH1 01/28/05	0423	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-3C-02
Sample ID: 129311017

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	101	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-3C-03	Project:	YANK01304
Sample ID:	129311018	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	5.96%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.326	+/-0.119	0.0431	+/-0.116	0.0929	pCi/g		AKB 01/26/05	1157	396375	1
Americium-241	U	0.0646	+/-0.0563	0.0406	+/-0.0552	0.0849	pCi/g					
Bismuth-212		0.212	+/-0.152	0.0965	+/-0.149	0.207	pCi/g					
Bismuth-214		0.310	+/-0.0745	0.0242	+/-0.073	0.0513	pCi/g					
Cesium-134	U	0.00931	+/-0.0197	0.0154	+/-0.0193	0.0328	pCi/g					
Cesium-137	U	0.0102	+/-0.0197	0.0131	+/-0.0193	0.0279	pCi/g					
Cobalt-60	U	0.00498	+/-0.0148	0.0128	+/-0.0145	0.0281	pCi/g					
Europium-152	U	-0.0219	+/-0.0381	0.0328	+/-0.0374	0.0693	pCi/g					
Europium-154	U	-0.0263	+/-0.0506	0.0329	+/-0.0496	0.0724	pCi/g					
Europium-155	U	0.0165	+/-0.0414	0.0398	+/-0.0406	0.0828	pCi/g					
Lead-212		0.384	+/-0.0533	0.0193	+/-0.0522	0.0403	pCi/g					
Lead-214		0.453	+/-0.0716	0.0256	+/-0.0702	0.0537	pCi/g					
Manganese-54	U	0.00488	+/-0.0147	0.0128	+/-0.0144	0.0274	pCi/g					
Niobium-94	U	-0.0047	+/-0.0132	0.0111	+/-0.013	0.0237	pCi/g					
Potassium-40		7.18	+/-0.764	0.0912	+/-0.749	0.207	pCi/g					
Radium-226		0.310	+/-0.0745	0.0242	+/-0.073	0.0513	pCi/g					
Silver-108m	U	0.0061	+/-0.0127	0.0114	+/-0.0124	0.0242	pCi/g					
Thallium-208		0.112	+/-0.0357	0.013	+/-0.035	0.0275	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	-0.00177	+/-0.00477	0.00408	+/-0.0048	0.00851	pCi/g		LCW1 02/04/05	0432	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		3.25	+/-1.86	1.45	+/-1.88	2.89	pCi/g		ATH1 01/28/05	0454	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-3C-03
Sample ID: 129311018

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	69	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-C-3C-04	Project:	YANK01304
Sample ID:	129311019	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	7.38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.371	+/-0.244	0.085	+/-0.239	0.192	pCi/g		AKB 01/26/05	1221	396375	1
Americium-241	U	-0.00321	+/-0.0731	0.0594	+/-0.0717	0.124	pCi/g					
Bismuth-212	U	0.351	+/-0.294	0.203	+/-0.288	0.449	pCi/g					
Bismuth-214		0.421	+/-0.127	0.0481	+/-0.124	0.105	pCi/g					
Cesium-134	U	0.0245	+/-0.0334	0.0315	+/-0.0327	0.0695	pCi/g					
Cesium-137	U	0.00	+/-0.0453	0.0447	+/-0.0444	0.0947	pCi/g					
	UI											
Cobalt-60	U	0.00274	+/-0.043	0.0313	+/-0.0422	0.071	pCi/g					
Europium-152	U	0.0561	+/-0.0791	0.0733	+/-0.0775	0.156	pCi/g					
Europium-154	U	-0.103	+/-0.111	0.0571	+/-0.109	0.137	pCi/g					
Europium-155	U	0.0499	+/-0.0752	0.0691	+/-0.0737	0.144	pCi/g					
Lead-212		0.386	+/-0.0938	0.0427	+/-0.0919	0.0894	pCi/g					
Lead-214		0.323	+/-0.126	0.0453	+/-0.124	0.0973	pCi/g					
Manganese-54	U	0.011	+/-0.0321	0.0289	+/-0.0315	0.0636	pCi/g					
Niobium-94	U	0.00721	+/-0.0324	0.0276	+/-0.0317	0.0599	pCi/g					
Potassium-40		7.54	+/-1.15	0.252	+/-1.13	0.589	pCi/g					
Radium-226		0.421	+/-0.127	0.0481	+/-0.124	0.105	pCi/g					
Silver-108m	U	-0.00753	+/-0.028	0.0236	+/-0.0274	0.0509	pCi/g					
Thallium-208		0.190	+/-0.0676	0.0274	+/-0.0662	0.0596	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90	U	0.00964	+/-0.00609	0.00471	+/-0.00698	0.00982	pCi/g		LCW1 02/04/05	0432	396624	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium		9.20	+/-2.09	1.44	+/-2.20	2.88	pCi/g		ATH1 01/28/05	0526	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1256	396346
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	DLD1	01/24/05	1702	396344
GL-RAD-A-026	Laboratory sample composite				396341

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-C-3C-04
Sample ID: 129311019

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	65	(25%-125%)

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	2000-0000-108-SI	Project:	YANK01304
Sample ID:	129311020	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	10.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.378	+/-0.262	0.0892	+/-0.257	0.199	pCi/g		AKB	01/26/05	1425	396375	1
Americium-241	U	-0.0186	+/-0.0741	0.0607	+/-0.0726	0.126	pCi/g						
Bismuth-212	U	0.364	+/-0.427	0.208	+/-0.418	0.454	pCi/g						
Bismuth-214		0.475	+/-0.154	0.0528	+/-0.151	0.114	pCi/g						
Cesium-134	U	0.0174	+/-0.0334	0.031	+/-0.0328	0.0678	pCi/g						
Cesium-137	U	0.0341	+/-0.0567	0.0241	+/-0.0556	0.0531	pCi/g						
Cobalt-60	U	-0.0106	+/-0.0344	0.0271	+/-0.0337	0.062	pCi/g						
Europium-152	U	0.0483	+/-0.0768	0.0716	+/-0.0753	0.152	pCi/g						
Europium-154	U	0.0291	+/-0.101	0.0885	+/-0.0994	0.198	pCi/g						
Europium-155	U	0.000377	+/-0.0789	0.0711	+/-0.0773	0.148	pCi/g						
Lead-212		0.442	+/-0.0922	0.0399	+/-0.0904	0.0836	pCi/g						
Lead-214		0.567	+/-0.138	0.0463	+/-0.135	0.0989	pCi/g						
Manganese-54	U	0.021	+/-0.031	0.029	+/-0.0303	0.0634	pCi/g						
Niobium-94	U	-0.00278	+/-0.0314	0.0261	+/-0.0308	0.0566	pCi/g						
Potassium-40		10.3	+/-1.40	0.271	+/-1.37	0.621	pCi/g						
Radium-226		0.475	+/-0.154	0.0528	+/-0.151	0.114	pCi/g						
Silver-108m	U	-0.00577	+/-0.0232	0.0197	+/-0.0227	0.0429	pCi/g						
Thallium-208		0.119	+/-0.0623	0.0231	+/-0.0611	0.0507	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90	U	0.0048	+/-0.00669	0.00547	+/-0.00679	0.0113	pCi/g		LCW1	02/01/05	0335	396625	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	-0.255	+/-1.79	1.51	+/-1.79	3.03	pCi/g		ATH1	01/28/05	0558	396644	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 2000-0000-108-SI
Sample ID: 129311020

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	98	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	5000-0000-107-SI	Project:	YANK01304
Sample ID:	129311021	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	11.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.546	+/-0.189	0.0698	+/-0.186	0.154	pCi/g		AKB 01/26/05	0940	396377	1
Americium-241	U	0.0101	+/-0.246	0.154	+/-0.241	0.320	pCi/g					
Bismuth-212		0.581	+/-0.319	0.155	+/-0.312	0.338	pCi/g					
Bismuth-214		0.425	+/-0.124	0.0394	+/-0.122	0.0848	pCi/g					
Cesium-134	U	0.0195	+/-0.0283	0.0262	+/-0.0277	0.0565	pCi/g					
Cesium-137	U	-0.0103	+/-0.0231	0.0194	+/-0.0226	0.0423	pCi/g					
Cobalt-60	U	0.00294	+/-0.0222	0.0189	+/-0.0218	0.0433	pCi/g					
Europium-152	U	0.0283	+/-0.0658	0.0594	+/-0.0645	0.126	pCi/g					
Europium-154	U	0.00502	+/-0.0653	0.0551	+/-0.064	0.125	pCi/g					
Europium-155	U	-0.00566	+/-0.0769	0.0722	+/-0.0753	0.150	pCi/g					
Lead-212		0.449	+/-0.0801	0.0359	+/-0.0785	0.0751	pCi/g					
Lead-214		0.560	+/-0.118	0.042	+/-0.116	0.089	pCi/g					
Manganese-54	U	-0.0126	+/-0.0254	0.0208	+/-0.0249	0.0454	pCi/g					
Niobium-94	U	-0.00569	+/-0.0232	0.017	+/-0.0228	0.0372	pCi/g					
Potassium-40		13.0	+/-1.36	0.174	+/-1.33	0.405	pCi/g					
Radium-226		0.425	+/-0.124	0.0394	+/-0.122	0.0848	pCi/g					
Silver-108m	U	0.00781	+/-0.0218	0.0194	+/-0.0214	0.0414	pCi/g					
Thallium-208		0.190	+/-0.0464	0.0193	+/-0.0455	0.0419	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.0126	+/-0.00694	0.00542	+/-0.00774	0.0112	pCi/g		LCW1 02/01/05	0335	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	-1.13	+/-1.97	1.18	+/-1.97	2.36	pCi/g		ATH1 01/29/05	1253	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 5000-0000-107-SI
Sample ID: 129311021

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	88	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9312-0003-113S	Project:	YANK01304
Sample ID:	129311022	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	7.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.485	+/-0.163	0.0677	+/-0.160	0.146	pCi/g		AKB 01/26/05	0941	396377	1
Americium-241	U	0.0195	+/-0.130	0.0907	+/-0.127	0.187	pCi/g					
Bismuth-212	U	0.286	+/-0.228	0.140	+/-0.223	0.301	pCi/g					
Bismuth-214		0.432	+/-0.109	0.0416	+/-0.106	0.0878	pCi/g					
Cesium-134	U	0.00	+/-0.0369	0.0286	+/-0.0362	0.0604	pCi/g					
	UI											
Cesium-137		4.81	+/-0.335	0.0214	+/-0.329	0.0454	pCi/g					
Cobalt-60		0.330	+/-0.064	0.0157	+/-0.0627	0.0357	pCi/g					
Europium-152	U	0.0272	+/-0.0778	0.0709	+/-0.0762	0.147	pCi/g					
Europium-154	U	0.0327	+/-0.0707	0.0636	+/-0.0693	0.139	pCi/g					
Europium-155	U	0.0437	+/-0.0706	0.0672	+/-0.0692	0.138	pCi/g					
Lead-212		0.480	+/-0.0708	0.0365	+/-0.0694	0.0755	pCi/g					
Lead-214		0.556	+/-0.130	0.0492	+/-0.127	0.102	pCi/g					
Manganese-54	U	-0.00691	+/-0.022	0.0184	+/-0.0216	0.0397	pCi/g					
Niobium-94	U	-0.00929	+/-0.0196	0.0165	+/-0.0192	0.0355	pCi/g					
Potassium-40		11.3	+/-1.26	0.191	+/-1.23	0.425	pCi/g					
Radium-226		0.432	+/-0.109	0.0416	+/-0.106	0.0878	pCi/g					
Silver-108m	U	-0.0225	+/-0.0308	0.026	+/-0.0302	0.054	pCi/g					
Thallium-208		0.123	+/-0.0487	0.0245	+/-0.0477	0.0514	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.054	+/-0.011	0.0078	+/-0.0231	0.0161	pCi/g		LCW1 02/01/05	0335	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	0.719	+/-1.61	0.947	+/-1.61	1.89	pCi/g		ATH1 01/29/05	1426	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9312-0003-113S
Sample ID: 129311022

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	72	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9312-0003-114S	Project:	YANK01304
Sample ID:	129311023	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	7.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)													
Actinium-228		0.478	+/-0.154	0.0667	+/-0.151	0.145	pCi/g		AKB	01/26/05	0941	396377	1
Americium-241	U	0.195	+/-0.182	0.125	+/-0.179	0.261	pCi/g						
Bismuth-212		0.460	+/-0.268	0.122	+/-0.263	0.267	pCi/g						
Bismuth-214		0.324	+/-0.138	0.0408	+/-0.135	0.0866	pCi/g						
Cesium-134	U	0.0402	+/-0.0358	0.0251	+/-0.0351	0.0537	pCi/g						
Cesium-137		3.44	+/-0.270	0.0204	+/-0.264	0.0437	pCi/g						
Cobalt-60		0.253	+/-0.0559	0.0157	+/-0.0548	0.0361	pCi/g						
Europium-152	U	-0.0515	+/-0.0708	0.0585	+/-0.0694	0.123	pCi/g						
Europium-154	U	0.0513	+/-0.0545	0.0616	+/-0.0534	0.136	pCi/g						
Europium-155	U	0.0554	+/-0.0646	0.0648	+/-0.0633	0.134	pCi/g						
Lead-212		0.528	+/-0.0803	0.0342	+/-0.0787	0.071	pCi/g						
Lead-214		0.483	+/-0.114	0.0469	+/-0.112	0.0979	pCi/g						
Manganese-54	U	0.00288	+/-0.022	0.0188	+/-0.0216	0.0408	pCi/g						
Niobium-94	U	0.0162	+/-0.0206	0.0189	+/-0.0202	0.0405	pCi/g						
Potassium-40		13.5	+/-1.35	0.116	+/-1.32	0.279	pCi/g						
Radium-226		0.324	+/-0.138	0.0408	+/-0.135	0.0866	pCi/g						
Silver-108m	U	-0.0104	+/-0.0241	0.0214	+/-0.0236	0.0449	pCi/g						
Thallium-208		0.155	+/-0.0453	0.0204	+/-0.0444	0.0435	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-HTD2,ALL2 (CT)													
Strontium-90		0.0473	+/-0.0101	0.00719	+/-0.0188	0.0148	pCi/g		LCW1	02/01/05	0335	396625	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)													
Tritium	U	0.236	+/-1.97	1.65	+/-1.97	3.30	pCi/g		ATH1	01/28/05	0733	396644	3
Solid Preparation													
Laboratory Composite													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9312-0003-114S
Sample ID: 129311023

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	77	(25%-125%)

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9312-0003-115S	Project:	YANK01304
Sample ID:	129311024	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	8.52%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.577	+/-0.175	0.0682	+/-0.172	0.149	pCi/g		AKB 01/26/05	0941	396377	1
Americium-241	U	0.0142	+/-0.0398	0.0376	+/-0.039	0.0773	pCi/g					
Bismuth-212		0.621	+/-0.250	0.151	+/-0.245	0.327	pCi/g					
Bismuth-214		0.533	+/-0.115	0.0489	+/-0.113	0.103	pCi/g					
Cesium-134	U	0.049	+/-0.0421	0.0286	+/-0.0413	0.061	pCi/g					
Cesium-137		3.70	+/-0.409	0.023	+/-0.400	0.0492	pCi/g					
Cobalt-60		0.209	+/-0.0644	0.0171	+/-0.0631	0.0391	pCi/g					
Europium-152	U	0.00582	+/-0.0897	0.0696	+/-0.0879	0.145	pCi/g					
Europium-154	U	-0.0202	+/-0.082	0.0685	+/-0.0804	0.150	pCi/g					
Europium-155	U	0.0399	+/-0.0717	0.0589	+/-0.0703	0.122	pCi/g					
Lead-212		0.450	+/-0.0822	0.0392	+/-0.0805	0.0811	pCi/g					
Lead-214		0.645	+/-0.139	0.0509	+/-0.136	0.106	pCi/g					
Manganese-54	U	0.0174	+/-0.0249	0.0228	+/-0.0244	0.0491	pCi/g					
Niobium-94	U	0.00619	+/-0.0208	0.0187	+/-0.0204	0.0403	pCi/g					
Potassium-40		12.9	+/-1.33	0.145	+/-1.30	0.339	pCi/g					
Radium-226		0.533	+/-0.115	0.0489	+/-0.113	0.103	pCi/g					
Silver-108m	U	-0.00368	+/-0.0297	0.0271	+/-0.0291	0.0564	pCi/g					
Thallium-208		0.170	+/-0.0533	0.0227	+/-0.0522	0.0484	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.0396	+/-0.00996	0.00723	+/-0.015	0.0149	pCi/g		LCW1 02/01/05	0422	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	1.09	+/-1.77	1.44	+/-1.77	2.89	pCi/g		ATH1 01/28/05	0805	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9312-0003-115S
Sample ID: 129311024

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	82	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

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Company : Connecticut Yankee Atomic Power
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9312-0003-116S	Project:	YANK01304
Sample ID:	129311025	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	10%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.382	+/-0.171	0.0583	+/-0.168	0.128	pCi/g		AKB 01/26/05	0942	396377	1
Americium-241	U	-0.0259	+/-0.104	0.0851	+/-0.102	0.177	pCi/g					
Bismuth-212		0.279	+/-0.251	0.121	+/-0.246	0.264	pCi/g					
Bismuth-214		0.434	+/-0.0849	0.0353	+/-0.0832	0.0756	pCi/g					
Cesium-134	U	0.00	+/-0.0299	0.0235	+/-0.0293	0.0503	pCi/g					
	UI											
Cesium-137		2.85	+/-0.226	0.0193	+/-0.222	0.0414	pCi/g					
Cobalt-60		0.299	+/-0.057	0.0206	+/-0.0559	0.0457	pCi/g					
Europium-152	U	-0.0255	+/-0.0663	0.0561	+/-0.065	0.118	pCi/g					
Europium-154	U	0.0246	+/-0.0622	0.0558	+/-0.061	0.124	pCi/g					
Europium-155	U	0.0247	+/-0.0587	0.0577	+/-0.0575	0.120	pCi/g					
Lead-212		0.461	+/-0.0709	0.0327	+/-0.0694	0.0681	pCi/g					
Lead-214		0.516	+/-0.115	0.0436	+/-0.113	0.0912	pCi/g					
Manganese-54	U	0.0301	+/-0.0249	0.0156	+/-0.0244	0.0343	pCi/g					
Niobium-94	U	0.00996	+/-0.0182	0.0166	+/-0.0178	0.0357	pCi/g					
Potassium-40		11.2	+/-1.19	0.118	+/-1.17	0.281	pCi/g					
Radium-226		0.434	+/-0.0849	0.0353	+/-0.0832	0.0756	pCi/g					
Silver-108m	U	0.00597	+/-0.0234	0.0216	+/-0.0229	0.0454	pCi/g					
Thallium-208		0.159	+/-0.0457	0.021	+/-0.0448	0.0447	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.0487	+/-0.00956	0.00664	+/-0.0165	0.0137	pCi/g		LCW1 02/01/05	0422	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	0.203	+/-2.07	1.73	+/-2.07	3.45	pCi/g		ATH1 01/28/05	0837	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9312–0003–116S
Sample ID: 129311025

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL–RAD–A–026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid–HTD2,ALL2 ((	84	(25%–125%)

Notes:
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- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab–specific qualifier–please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9801-0000-117S	Project:	YANK01304
Sample ID:	129311026	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	14.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.686	+/-0.165	0.0835	+/-0.162	0.179	pCi/g		AKB 01/26/05	0942	396377	1
Americium-241	U	-0.0135	+/-0.123	0.105	+/-0.120	0.218	pCi/g					
Bismuth-212		0.384	+/-0.262	0.162	+/-0.256	0.348	pCi/g					
Bismuth-214		0.623	+/-0.115	0.046	+/-0.113	0.0973	pCi/g					
Cesium-134	U	0.0179	+/-0.0275	0.0252	+/-0.027	0.054	pCi/g					
Cesium-137		1.70	+/-0.156	0.0241	+/-0.153	0.0514	pCi/g					
Cobalt-60		0.342	+/-0.0665	0.0199	+/-0.0652	0.0444	pCi/g					
Europium-152	U	0.0153	+/-0.071	0.0645	+/-0.0696	0.135	pCi/g					
Europium-154	U	0.00457	+/-0.0692	0.0598	+/-0.0678	0.132	pCi/g					
Europium-155	U	0.070	+/-0.0777	0.0746	+/-0.0761	0.154	pCi/g					
Lead-212		0.659	+/-0.0968	0.0364	+/-0.0949	0.0757	pCi/g					
Lead-214		0.692	+/-0.130	0.0482	+/-0.128	0.101	pCi/g					
Manganese-54	U	-0.00814	+/-0.0242	0.0202	+/-0.0237	0.0436	pCi/g					
Niobium-94	U	0.00589	+/-0.0218	0.0196	+/-0.0214	0.042	pCi/g					
Potassium-40		10.8	+/-1.44	0.185	+/-1.41	0.416	pCi/g					
Radium-226		0.623	+/-0.115	0.046	+/-0.113	0.0973	pCi/g					
Silver-108m	U	-0.0142	+/-0.0257	0.0216	+/-0.0252	0.0456	pCi/g					
Thallium-208		0.222	+/-0.045	0.0215	+/-0.0441	0.0459	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.0847	+/-0.0115	0.00768	+/-0.0261	0.0158	pCi/g		LCW1 02/01/05	0422	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	0.449	+/-1.89	1.57	+/-1.89	3.14	pCi/g		ATH1 01/28/05	0909	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9801-0000-117S
Sample ID: 129311026

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	84	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID:	9801-0000-122S	Project:	YANK01304
Sample ID:	129311027	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	21-JAN-05		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid-GAM2,ALL2 (CT)												
Actinium-228		0.503	+/-0.151	0.0603	+/-0.148	0.132	pCi/g		AKB 01/26/05	0943	396377	1
Americium-241	U	-0.027	+/-0.116	0.0998	+/-0.114	0.208	pCi/g					
Bismuth-212	U	0.243	+/-0.188	0.134	+/-0.185	0.289	pCi/g					
Bismuth-214		0.390	+/-0.0976	0.0274	+/-0.0957	0.0596	pCi/g					
Cesium-134	U	0.0315	+/-0.023	0.022	+/-0.0226	0.0473	pCi/g					
Cesium-137		0.0954	+/-0.0347	0.0141	+/-0.034	0.031	pCi/g					
Cobalt-60		0.158	+/-0.0446	0.0179	+/-0.0437	0.0403	pCi/g					
Europium-152	U	0.0675	+/-0.0543	0.0435	+/-0.0532	0.0925	pCi/g					
Europium-154	U	0.019	+/-0.0612	0.0539	+/-0.060	0.120	pCi/g					
Europium-155	U	0.0678	+/-0.0882	0.0516	+/-0.0865	0.108	pCi/g					
Lead-212		0.427	+/-0.064	0.0243	+/-0.0627	0.0511	pCi/g					
Lead-214		0.488	+/-0.0966	0.0299	+/-0.0946	0.0636	pCi/g					
Manganese-54	U	0.00561	+/-0.0215	0.0185	+/-0.021	0.0399	pCi/g					
Niobium-94	U	-0.0126	+/-0.0192	0.0153	+/-0.0189	0.0331	pCi/g					
Potassium-40		11.7	+/-1.21	0.154	+/-1.18	0.353	pCi/g					
Radium-226		0.390	+/-0.0976	0.0274	+/-0.0957	0.0596	pCi/g					
Silver-108m	U	0.0121	+/-0.0169	0.0159	+/-0.0166	0.0339	pCi/g					
Thallium-208		0.144	+/-0.040	0.0152	+/-0.0392	0.0329	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid-HTD2,ALL2 (CT)												
Strontium-90		0.110	+/-0.00999	0.00565	+/-0.0272	0.0116	pCi/g		LCW1 02/01/05	0422	396625	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL2 (CT)												
Tritium	U	-1.33	+/-1.66	1.44	+/-1.66	2.88	pCi/g		ATH1 01/28/05	0941	396644	3
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	B J1	01/25/05	1303	396353
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	B J1	01/24/05	1306	396351
GL-RAD-A-026	Laboratory sample composite				396350

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Pete Hollenbeck
Project: Soils and Concrete PO# 002337

Report Date: February 4, 2005

Client Sample ID: 9801-0000-122S
Sample ID: 129311027

Project: YANK01304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 906.0 Modified
4	GL-RAD-A-026

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, solid-HTD2,ALL2 ((	102	(25%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 4, 2005

Client : Connecticut Yankee Atomic Power
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Pete Hollenbeck

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396301										
QC1200776365 128921003 DUP										
Americium-241	U	0.00394	U	0.0374	pCi/g	162		(0% - 100%)	JAS1	01/31/05 10:19
	Uncert:	+/-0.0298		+/-0.0951						
	TPU:	+/-0.0298		+/-0.0953						
Curium-242	U	0.0154	U	0.0141	pCi/g	9		(0% - 100%)		
	Uncert:	+/-0.0302		+/-0.0375						
	TPU:	+/-0.0303		+/-0.0376						
Curium-243/244	U	-0.00338	U	0.0238	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.00662		+/-0.0808						
	TPU:	+/-0.00664		+/-0.0809						
QC1200776367 LCS										
Americium-241	5.21			5.56	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.582						
	TPU:			+/-0.989						
Curium-242			U	0.0121	pCi/g					
	Uncert:			+/-0.0322						
	TPU:			+/-0.0322						
Curium-243/244	6.44			7.32	pCi/g		114	(75%-125%)		
	Uncert:			+/-0.667						
	TPU:			+/-1.25						
QC1200776364 MB										
Americium-241			U	0.0586	pCi/g					01/31/05 10:19
	Uncert:			+/-0.0616						
	TPU:			+/-0.0622						
Curium-242			U	-0.0038	pCi/g					
	Uncert:			+/-0.00744						
	TPU:			+/-0.00746						
Curium-243/244			U	-0.00374	pCi/g					
	Uncert:			+/-0.00734						
	TPU:			+/-0.00736						
QC1200776366 128921003 MS										
Americium-241	5.33 U	0.00394		5.83	pCi/g		109	(75%-125%)		01/31/05 10:19
	Uncert:	+/-0.0298		+/-0.560						
	TPU:	+/-0.0298		+/-0.984						
Curium-242	U	0.0154	U	0.0116	pCi/g					
	Uncert:	+/-0.0302		+/-0.0307						
	TPU:	+/-0.0303		+/-0.0307						
Curium-243/244	6.60 U	-0.00338		7.38	pCi/g		112	(75%-125%)		
	Uncert:	+/-0.00662		+/-0.630						
	TPU:	+/-0.00664		+/-1.20						
Batch 396302										
QC1200776369 128921003 DUP										
Plutonium-238	U	-0.0135	U	0.00265	pCi/g	N/A		(0% - 100%)	JAS1	01/29/05 15:07

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396302										
	Uncert:	+/-0.0175		+/-0.0268						
	TPU:	+/-0.0176		+/-0.0268						
Plutonium-239/240	U	0.0027	U	-5.690E-05	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0159		+/-0.0137						
	TPU:	+/-0.0159		+/-0.0137						
QC1200776371 LCS										
Plutonium-238			U	0.0189	pCi/g			(75%-125%)		
	Uncert:			+/-0.0255						
	TPU:			+/-0.0256						
Plutonium-239/240	4.56			4.76	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.315						
	TPU:			+/-0.599						
QC1200776368 MB										
Plutonium-238			U	-0.000276	pCi/g					
	Uncert:			+/-0.0298						
	TPU:			+/-0.0298						
Plutonium-239/240			U	0.0221	pCi/g					
	Uncert:			+/-0.0254						
	TPU:			+/-0.0256						
QC1200776370 128921003 MS										
Plutonium-238	U	-0.0135	U	0.0326	pCi/g			(75%-125%)		
	Uncert:	+/-0.0175		+/-0.0459						
	TPU:	+/-0.0176		+/-0.0461						
Plutonium-239/240	4.67 U	0.0027		5.19	pCi/g		111	(75%-125%)		
	Uncert:	+/-0.0159		+/-0.346						
	TPU:	+/-0.0159		+/-0.661						
Batch 396303										
QC1200776373 128921003 DUP										
Plutonium-241	U	-1.04	U	0.315	pCi/g	N/A		(0% - 100%)	JAS1	02/01/05 14:16
	Uncert:	+/-3.81		+/-3.44						
	TPU:	+/-3.81		+/-3.44						
QC1200776375 LCS										
Plutonium-241	66.3			54.5	pCi/g		82	(75%-125%)		02/01/05 15:19
	Uncert:			+/-4.93						
	TPU:			+/-7.53						
QC1200776372 MB										
Plutonium-241			U	1.21	pCi/g					02/02/05 11:56
	Uncert:			+/-2.90						
	TPU:			+/-2.90						
QC1200776374 128921003 MS										
Plutonium-241	67.6 U	-1.04		52.8	pCi/g		78	(75%-125%)		02/01/05 23:44
	Uncert:	+/-3.81		+/-5.19						
	TPU:	+/-3.81		+/-7.65						
Rad Gamma Spec										
Batch 396375										
QC1200776529 129311001 DUP										
Actinium-228		0.415		0.512	pCi/g	21		(0% - 100%)	AKB	01/26/05 16:41
	Uncert:	+/-0.179		+/-0.141						
				+/-0.139						

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 396375											
	TPU:	+/-0.176									
Americium-241	U	-0.013	U	-0.000908	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.114		+/-0.0715							
	TPU:	+/-0.112		+/-0.0701							
Bismuth-212		0.310	U	0.0379	pCi/g	156		(0% - 100%)			
	Uncert:	+/-0.156		+/-0.122							
	TPU:	+/-0.153		+/-0.119							
Bismuth-214		0.641		0.632	pCi/g	1		(0% - 100%)			
	Uncert:	+/-0.122		+/-0.100							
	TPU:	+/-0.120		+/-0.0981							
Cesium-134	U	0.0311	UUI	0.00	pCi/g	22		(0% - 100%)			
	Uncert:	+/-0.0276		+/-0.0309							
	TPU:	+/-0.027		+/-0.0303							
Cesium-137	U	0.0203	U	-0.0109	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0191		+/-0.0164							
	TPU:	+/-0.0187		+/-0.0161							
Cobalt-60	U	-0.00473	U	0.0104	pCi/g	N/A		(0% - 100%)			
	Uncert:	+/-0.0293		+/-0.0181							
	TPU:	+/-0.0287		+/-0.0178							
Europium-152	U	0.0162	U	0.039	pCi/g	83		(0% - 100%)			
	Uncert:	+/-0.064		+/-0.0469							
	TPU:	+/-0.0627		+/-0.046							
Europium-154	U	0.0349	U	0.00252	pCi/g	173		(0% - 100%)			
	Uncert:	+/-0.058		+/-0.0563							
	TPU:	+/-0.0568		+/-0.0551							
Europium-155	U	0.018	U	0.0381	pCi/g	72		(0% - 100%)			
	Uncert:	+/-0.0577		+/-0.0482							
	TPU:	+/-0.0565		+/-0.0472							
Lead-212		0.407		0.323	pCi/g	23		(0% - 100%)			
	Uncert:	+/-0.0655		+/-0.0604							
	TPU:	+/-0.0642		+/-0.0592							
Lead-214		0.715		0.660	pCi/g	8		(0% - 20%)			
	Uncert:	+/-0.112		+/-0.0924							
	TPU:	+/-0.109		+/-0.0906							
Manganese-54	U	0.00429	U	0.00601	pCi/g	33		(0% - 100%)			
	Uncert:	+/-0.022		+/-0.0164							
	TPU:	+/-0.0216		+/-0.016							
Niobium-94	UUI	0.00	UUI	0.00	pCi/g	0		(0% - 100%)			
	Uncert:	+/-0.0385		+/-0.0203							
	TPU:	+/-0.0377		+/-0.0199							
Potassium-40		6.57		7.05	pCi/g	7		(0% - 20%)			
	Uncert:	+/-0.947		+/-0.735							
	TPU:	+/-0.928		+/-0.721							
Radium-226		0.641		0.632	pCi/g	1		(0% - 100%)			
	Uncert:	+/-0.122		+/-0.100							
	TPU:	+/-0.120		+/-0.0981							
Silver-108m	U	0.00382	U	0.000226	pCi/g	178		(0% - 100%)			
	Uncert:	+/-0.0185		+/-0.0144							

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396375										
	TPU:	+/-0.0181		+/-0.0141						
Thallium-208		0.132		0.107	pCi/g	21		(0% - 100%)		
	Uncert:	+/-0.035		+/-0.037						
	TPU:	+/-0.0343		+/-0.0363						
QC1200776530 LCS										
Actinium-228			U	-0.0366	pCi/g					01/26/05 10:48
	Uncert:			+/-0.764						
	TPU:			+/-0.749						
Americium-241	23.4			23.0	pCi/g		98	(75%-125%)		
	Uncert:			+/-1.81						
	TPU:			+/-1.78						
Bismuth-212			U	0.723	pCi/g					
	Uncert:			+/-1.24						
	TPU:			+/-1.21						
Bismuth-214			U	0.114	pCi/g					
	Uncert:			+/-0.317						
	TPU:			+/-0.310						
Cesium-134			U	-0.0845	pCi/g					
	Uncert:			+/-0.192						
	TPU:			+/-0.189						
Cesium-137	9.12			9.30	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.942						
	TPU:			+/-0.923						
Cobalt-60	13.2			13.1	pCi/g		99	(75%-125%)		
	Uncert:			+/-1.09						
	TPU:			+/-1.07						
Europium-152			U	0.142	pCi/g					
	Uncert:			+/-0.350						
	TPU:			+/-0.343						
Europium-154			U	-0.267	pCi/g					
	Uncert:			+/-0.361						
	TPU:			+/-0.354						
Europium-155			U	0.0948	pCi/g					
	Uncert:			+/-0.343						
	TPU:			+/-0.336						
Lead-212			U	0.189	pCi/g					
	Uncert:			+/-0.184						
	TPU:			+/-0.180						
Lead-214			U	-0.0401	pCi/g					
	Uncert:			+/-0.251						
	TPU:			+/-0.246						
Manganese-54			U	-0.187	pCi/g					
	Uncert:			+/-0.170						
	TPU:			+/-0.167						
Niobium-94			U	0.0175	pCi/g					
	Uncert:			+/-0.155						
	TPU:			+/-0.151						
Potassium-40			U	0.840	pCi/g					

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396375										
	Uncert:			+/-1.07						
	TPU:			+/-1.05						
Radium-226			U	0.114	pCi/g			(75%-125%)		
	Uncert:			+/-0.317						
	TPU:			+/-0.310						
Silver-108m			U	0.0813	pCi/g					
	Uncert:			+/-0.145						
	TPU:			+/-0.142						
Thallium-208			U	0.0392	pCi/g					
	Uncert:			+/-0.169						
	TPU:			+/-0.165						
QC1200776528 MB										
Actinium-228			U	0.053	pCi/g					01/26/05 16:24
	Uncert:			+/-0.169						
	TPU:			+/-0.165						
Americium-241			U	0.00567	pCi/g					
	Uncert:			+/-0.133						
	TPU:			+/-0.131						
Bismuth-212			U	0.00142	pCi/g					
	Uncert:			+/-0.249						
	TPU:			+/-0.244						
Bismuth-214			U	0.0482	pCi/g					
	Uncert:			+/-0.083						
	TPU:			+/-0.0813						
Cesium-134			U	0.0188	pCi/g					
	Uncert:			+/-0.0276						
	TPU:			+/-0.027						
Cesium-137			U	0.00694	pCi/g					
	Uncert:			+/-0.0273						
	TPU:			+/-0.0268						
Cobalt-60			U	-0.0118	pCi/g					
	Uncert:			+/-0.0336						
	TPU:			+/-0.033						
Europium-152			U	0.00291	pCi/g					
	Uncert:			+/-0.090						
	TPU:			+/-0.0882						
Europium-154			U	-0.014	pCi/g					
	Uncert:			+/-0.0901						
	TPU:			+/-0.0883						
Europium-155			U	-0.0386	pCi/g					
	Uncert:			+/-0.0729						
	TPU:			+/-0.0714						
Lead-212			U	0.0512	pCi/g					
	Uncert:			+/-0.0598						
	TPU:			+/-0.0586						
Lead-214			U	0.0488	pCi/g					
	Uncert:			+/-0.0613						
	TPU:			+/-0.0601						

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396375										
Manganese-54			U	0.0153	pCi/g					
	Uncert:			+/-0.0289						
	TPU:			+/-0.0284						
Niobium-94			U	0.0058	pCi/g					
	Uncert:			+/-0.0296						
	TPU:			+/-0.0291						
Potassium-40			U	0.700	pCi/g					
	Uncert:			+/-0.397						
	TPU:			+/-0.389						
Radium-226			U	0.0482	pCi/g					
	Uncert:			+/-0.083						
	TPU:			+/-0.0813						
Silver-108m			U	-0.00164	pCi/g					
	Uncert:			+/-0.0272						
	TPU:			+/-0.0266						
Thallium-208			U	0.000895	pCi/g					
	Uncert:			+/-0.0292						
	TPU:			+/-0.0286						
Batch 396377										
QC1200776536 129311021 DUP										
Actinium-228		0.546		0.473	pCi/g	14		(0% - 100%)	AKB	01/26/05 11:58
	Uncert:	+/-0.189		+/-0.179						
	TPU:	+/-0.186		+/-0.176						
Americium-241	U	0.0101	U	0.043	pCi/g	124		(0% - 100%)		
	Uncert:	+/-0.246		+/-0.129						
	TPU:	+/-0.241		+/-0.127						
Bismuth-212		0.581	U	0.208	pCi/g	95		(0% - 100%)		
	Uncert:	+/-0.319		+/-0.163						
	TPU:	+/-0.312		+/-0.160						
Bismuth-214		0.425		0.496	pCi/g	16		(0% - 100%)		
	Uncert:	+/-0.124		+/-0.113						
	TPU:	+/-0.122		+/-0.110						
Cesium-134	U	0.0195	U	0.0124	pCi/g	45		(0% - 100%)		
	Uncert:	+/-0.0283		+/-0.0226						
	TPU:	+/-0.0277		+/-0.0221						
Cesium-137	U	-0.0103	U	0.0296	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0231		+/-0.0213						
	TPU:	+/-0.0226		+/-0.0208						
Cobalt-60	U	0.00294	U	-0.00314	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0222		+/-0.0217						
	TPU:	+/-0.0218		+/-0.0213						
Europium-152	U	0.0283	U	0.00723	pCi/g	119		(0% - 100%)		
	Uncert:	+/-0.0658		+/-0.0559						
	TPU:	+/-0.0645		+/-0.0547						
Europium-154	U	0.00502	U	-0.0474	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0653		+/-0.059						
	TPU:	+/-0.064		+/-0.0578						
Europium-155	U	-0.00566	U	0.0421	pCi/g	N/A		(0% - 100%)		

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396377										
	Uncert:	+/-0.0769		+/-0.0585						
	TPU:	+/-0.0753		+/-0.0573						
Lead-212		0.449		0.482	pCi/g	7		(0% - 100%)		
	Uncert:	+/-0.0801		+/-0.0729						
	TPU:	+/-0.0785		+/-0.0714						
Lead-214		0.560		0.535	pCi/g	5		(0% - 20%)		
	Uncert:	+/-0.118		+/-0.0971						
	TPU:	+/-0.116		+/-0.0951						
Manganese-54	U	-0.0126	U	0.0175	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0254		+/-0.0189						
	TPU:	+/-0.0249		+/-0.0185						
Niobium-94	U	-0.00569	U	0.0135	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0232		+/-0.0193						
	TPU:	+/-0.0228		+/-0.0189						
Potassium-40		13.0		12.8	pCi/g	2		(0% - 20%)		
	Uncert:	+/-1.36		+/-1.44						
	TPU:	+/-1.33		+/-1.41						
Radium-226		0.425		0.496	pCi/g	16		(0% - 100%)		
	Uncert:	+/-0.124		+/-0.113						
	TPU:	+/-0.122		+/-0.110						
Silver-108m	U	0.00781	U	-0.0029	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0218		+/-0.0183						
	TPU:	+/-0.0214		+/-0.0179						
Thallium-208		0.190		0.163	pCi/g	15		(0% - 100%)		
	Uncert:	+/-0.0464		+/-0.0385						
	TPU:	+/-0.0455		+/-0.0377						
QC1200776537 LCS										
Actinium-228			U	0.918	pCi/g					01/26/05 09:44
	Uncert:			+/-1.29						
	TPU:			+/-1.26						
Americium-241	23.4			23.0	pCi/g		98	(75%-125%)		
	Uncert:			+/-1.92						
	TPU:			+/-1.88						
Bismuth-212			U	-0.606	pCi/g					
	Uncert:			+/-1.54						
	TPU:			+/-1.51						
Bismuth-214			U	0.372	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.301						
Cesium-134			U	-0.135	pCi/g					
	Uncert:			+/-0.177						
	TPU:			+/-0.174						
Cesium-137	9.11			9.56	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.979						
	TPU:			+/-0.960						
Cobalt-60	13.2			13.0	pCi/g		99	(75%-125%)		
	Uncert:			+/-1.12						
	TPU:			+/-1.10						

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396377										
Europium-152			U	-0.0335	pCi/g					
	Uncert:			+/-0.343						
	TPU:			+/-0.336						
Europium-154			U	0.226	pCi/g					
	Uncert:			+/-0.345						
	TPU:			+/-0.338						
Europium-155			U	-0.0621	pCi/g					
	Uncert:			+/-0.344						
	TPU:			+/-0.337						
Lead-212			U	0.103	pCi/g					
	Uncert:			+/-0.179						
	TPU:			+/-0.176						
Lead-214			U	0.042	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.247						
Manganese-54			U	0.102	pCi/g					
	Uncert:			+/-0.178						
	TPU:			+/-0.175						
Niobium-94			U	0.0413	pCi/g					
	Uncert:			+/-0.145						
	TPU:			+/-0.142						
Potassium-40			U	0.380	pCi/g					
	Uncert:			+/-1.16						
	TPU:			+/-1.13						
Radium-226			U	0.372	pCi/g			(75%-125%)		
	Uncert:			+/-0.307						
	TPU:			+/-0.301						
Silver-108m			U	0.00745	pCi/g					
	Uncert:			+/-0.140						
	TPU:			+/-0.137						
Thallium-208			U	-0.00224	pCi/g					
	Uncert:			+/-0.164						
	TPU:			+/-0.161						
QC1200776535 MB										
Actinium-228			U	0.0898	pCi/g					01/26/05 09:43
	Uncert:			+/-0.176						
	TPU:			+/-0.173						
Americium-241			U	-0.0868	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.135						
Bismuth-212			U	0.178	pCi/g					
	Uncert:			+/-0.246						
	TPU:			+/-0.241						
Bismuth-214			U	0.00454	pCi/g					
	Uncert:			+/-0.0669						
	TPU:			+/-0.0656						
Cesium-134			U	-0.00296	pCi/g					
	Uncert:			+/-0.0339						

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 396377											
	TPU:			+/-0.0332							
Cesium-137			U	0.00562	pCi/g						
	Uncert:			+/-0.032							
	TPU:			+/-0.0313							
Cobalt-60			U	-0.0268	pCi/g						
	Uncert:			+/-0.0432							
	TPU:			+/-0.0424							
Europium-152			U	-0.0354	pCi/g						
	Uncert:			+/-0.0908							
	TPU:			+/-0.089							
Europium-154			U	0.0157	pCi/g						
	Uncert:			+/-0.0824							
	TPU:			+/-0.0807							
Europium-155			U	-0.00784	pCi/g						
	Uncert:			+/-0.0738							
	TPU:			+/-0.0724							
Lead-212			U	0.0585	pCi/g						
	Uncert:			+/-0.0465							
	TPU:			+/-0.0456							
Lead-214			U	0.0249	pCi/g						
	Uncert:			+/-0.0551							
	TPU:			+/-0.054							
Manganese-54			U	-0.0253	pCi/g						
	Uncert:			+/-0.0284							
	TPU:			+/-0.0278							
Niobium-94			U	-0.0115	pCi/g						
	Uncert:			+/-0.0279							
	TPU:			+/-0.0273							
Potassium-40			U	0.426	pCi/g						
	Uncert:			+/-0.337							
	TPU:			+/-0.331							
Radium-226			U	0.00454	pCi/g						
	Uncert:			+/-0.0669							
	TPU:			+/-0.0656							
Silver-108m			U	0.00992	pCi/g						
	Uncert:			+/-0.0255							
	TPU:			+/-0.025							
Thallium-208			U	0.0186	pCi/g						
	Uncert:			+/-0.0376							
	TPU:			+/-0.0369							
Rad Gas Flow											
Batch 396624											
QC1200777072 129311005 DUP											
Strontium-90	U	0.00202	U	-0.0349	pCi/g	N/A		(0% - 100%)	CW1	02/04/05	15:36
	Uncert:	+/-0.00648		+/-0.00671							
	TPU:	+/-0.00652		+/-0.0144							
QC1200777074 LCS											
Strontium-90	1.10			0.911	pCi/g		83	(75%-125%)		02/03/05	11:44

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 396624										
	Uncert:			+/-0.0515						
	TPU:			+/-0.191						
QC1200777071 MB										
Strontium-90			U	-0.00781	pCi/g					02/04/05 15:35
	Uncert:			+/-0.00576						
	TPU:			+/-0.00608						
QC1200777073 129311005 MS										
Strontium-90	2.08 U	0.00202		1.81	pCi/g		87	(75%-125%)		02/04/05 11:53
	Uncert:	+/-0.00648		+/-0.157						
	TPU:	+/-0.00652		+/-1.07						
Batch 396625										
QC1200777076 129311023 DUP										
Strontium-90		0.0473		0.0369	pCi/g	25*		(0% - 100%)	LCW1	02/01/05 04:30
	Uncert:	+/-0.0101		+/-0.00925						
	TPU:	+/-0.0188		+/-0.0143						
QC1200777078 LCS										
Strontium-90	1.19			1.30	pCi/g		109	(75%-125%)		01/31/05 18:46
	Uncert:			+/-0.0749						
	TPU:			+/-0.335						
QC1200777075 MB										
Strontium-90			U	-0.000581	pCi/g					02/01/05 04:30
	Uncert:			+/-0.00703						
	TPU:			+/-0.00703						
QC1200777077 129311023 MS										
Strontium-90	2.39	0.0473		2.76	pCi/g		114	(75%-125%)		01/31/05 18:46
	Uncert:	+/-0.0101		+/-0.167						
	TPU:	+/-0.0188		+/-0.787						
Rad Liquid Scintillation										
Batch 396255										
QC1200776282 129311003 DUP										
Technetium-99	U	0.00604	U	0.0887	pCi/g	0		(0% - 100%)	EGD1	01/31/05 04:48
	Uncert:	+/-0.277		+/-0.274						
	TPU:	+/-0.277		+/-0.274						
QC1200776284 LCS										
Technetium-99	22.1			23.0	pCi/g		104	(75%-125%)		01/31/05 05:53
	Uncert:			+/-0.661						
	TPU:			+/-0.877						
QC1200776281 MB										
Technetium-99			U	0.086	pCi/g					01/31/05 04:16
	Uncert:			+/-0.238						
	TPU:			+/-0.238						
QC1200776283 129311003 MS										
Technetium-99	23.1 U	0.00604		24.2	pCi/g		105	(75%-125%)		01/31/05 05:21
	Uncert:	+/-0.277		+/-0.751						
	TPU:	+/-0.277		+/-0.967						
Batch 396262										
QC1200776298 129311001 DUP										
Tritium	U	1.76		3.82	pCi/g	74		(0% - 100%)	LAG1	01/27/05 08:00

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396262										
	Uncert:	+/-1.51		+/-1.72						
	TPU:	+/-1.51		+/-1.74						
QC1200776300 LCS										
Tritium	9.34			8.49	pCi/g		91	(75%-125%)		01/27/05 09:04
	Uncert:			+/-1.02						
	TPU:			+/-1.14						
QC1200776297 MB										
Tritium			U	-0.0536	pCi/g					01/27/05 07:28
	Uncert:			+/-0.703						
	TPU:			+/-0.703						
QC1200776299 129311001 MS										
Tritium	9.77 U	1.76		10.7	pCi/g		91	(75%-125%)		01/27/05 08:32
	Uncert:	+/-1.51		+/-1.87						
	TPU:	+/-1.51		+/-1.97						
Batch 396263										
QC1200776302 129311001 DUP										
Carbon-14	U	0.167	U	0.155	pCi/g	0		(0% - 100%)	LAG1	01/26/05 02:48
	Uncert:	+/-0.166		+/-0.170						
	TPU:	+/-0.166		+/-0.170						
QC1200776304 LCS										
Carbon-14	7.46			7.45	pCi/g		100	(75%-125%)		01/26/05 03:52
	Uncert:			+/-0.324						
	TPU:			+/-0.344						
QC1200776301 MB										
Carbon-14			U	0.177	pCi/g					01/26/05 02:16
	Uncert:			+/-0.158						
	TPU:			+/-0.158						
QC1200776303 129311001 MS										
Carbon-14	7.46 U	0.167		8.16	pCi/g		107	(75%-125%)		01/26/05 03:20
	Uncert:	+/-0.166		+/-0.334						
	TPU:	+/-0.166		+/-0.357						
Batch 396265										
QC1200779499 129311003 DUP										
Iron-55		5.57		10.0	pCi/g	57*		(0% - 100%)	DAJ1	02/01/05 22:28
	Uncert:	+/-3.15		+/-3.18						
	TPU:	+/-3.15		+/-3.20						
QC1200776308 LCS										
Iron-55	37.8			44.8	pCi/g		119	(75%-125%)		02/02/05 00:33
	Uncert:			+/-2.68						
	TPU:			+/-3.28						
QC1200776305 MB										
Iron-55			U	-0.0091	pCi/g					02/01/05 21:25
	Uncert:			+/-1.99						
	TPU:			+/-1.99						
QC1200779500 129311003 MS										
Iron-55	39.8	5.57		43.2	pCi/g		95	(75%-125%)		02/01/05 23:30
	Uncert:	+/-3.15		+/-3.29						
	TPU:	+/-3.15		+/-3.73						
Batch 396266										

QC Summary

Workorder: 129311

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396266										
QC1200779497 129311003 DUP										
Nickel-63		63.3		59.8	pCi/g	6		(0% - 20%)	DAJ1	02/01/05 12:31
	Uncert:	+/-1.38		+/-1.31						
	TPU:	+/-2.53		+/-2.40						
QC1200776312 LCS										
Nickel-63	30.5			30.8	pCi/g		101	(75%-125%)		02/01/05 14:09
	Uncert:			+/-0.905						
	TPU:			+/-1.37						
QC1200776309 MB										
Nickel-63			U	-0.326	pCi/g					02/01/05 11:31
	Uncert:			+/-0.385						
	TPU:			+/-0.385						
QC1200779498 129311003 MS										
Nickel-63	31.7	63.3		95.6	pCi/g		102	(75%-125%)		02/01/05 13:07
	Uncert:	+/-1.38		+/-2.00						
	TPU:	+/-2.53		+/-3.78						
Batch 396644										
QC1200777113 129311020 DUP										
Tritium	U	-0.255	U	-1.42	pCi/g	N/A		(0% - 100%)	ATH1	01/28/05 10:44
	Uncert:	+/-1.79		+/-1.72						
	TPU:	+/-1.79		+/-1.72						
QC1200777115 LCS										
Tritium	17.5			16.4	pCi/g		94	(75%-125%)		01/28/05 11:48
	Uncert:			+/-2.42						
	TPU:			+/-2.74						
QC1200777112 MB										
Tritium			U	-0.581	pCi/g					01/28/05 10:13
	Uncert:			+/-1.76						
	TPU:			+/-1.76						
QC1200777114 129311020 MS										
Tritium	17.5 U	-0.255		16.0	pCi/g		91	(75%-125%)		01/28/05 11:16
	Uncert:	+/-1.79		+/-2.40						
	TPU:	+/-1.79		+/-2.71						

Notes:
The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

QC Summary

Workorder: **129311**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

h Sample preparation or preservation holding time exceeded.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Connecticut Yankee Atomic Power Co.
Soils PO# 002332
Work Order: 173317
SDG: MSR#06-1330

Laboratory ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

October 25, 2006

Mr. Jack McCarthy
Connecticut Yankee Atomic Power
362 Injun Hollow Rd
East Hampton, Connecticut 06424

Re: Soils PO# 002332
Work Order: 173317
SDG: MSR#06-1330

Dear Mr. McCarthy:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on October 05, 2006. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Purchase Order: 002332
Chain of Custody: 2006-00602
Enclosures

P.O. BOX 30712 Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 www.gel.com

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General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 173317
SDG: MSR#06-1330

October 25, 2006

Laboratory Identification:

General Engineering Laboratories, LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The samples arrived at General Engineering Laboratories, LLC, Charleston, South Carolina on October 05, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. Samples 9801-00-SFB-01-C4 and 9801-00-FOY-01-C4 were incorrectly listed on the COC. Arthur Hammond confirmed the correct IDs via email on October 5, 2006. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4

Items of Note

After sample receipt, it was determined that samples 9801-0002-SFB-01-C1 through 9801-0002-SFB-C4 had been improperly labeled by GEL. Through discussions with Matt Darios, it was confirmed that the concrete cores were to be labeled as the COC documents and the bedrock cores would have additional tests to confirm matrix composition via ICPMS. The ICPMS data will be reported in a separate data package.
Jack McCarthy was contacted regarding the failure to meet the required MDA for Fe-55.
Please see attached email.

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Analytical Request

Eight concrete core samples were analyzed for CHALL. Eight bedrock samples were analyzed for CHALL.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, Data Review Qualifier Definitions, and data from the following fractions: Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

List of current GEL Certifications as of 25 October 2006

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2006-00602

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Art Hammond 860-267-2556 x 3118

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only

Comments: 173317

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	CHGAM	CHALL	FSSHTD	FSSTRU	FSSOTHR	H-3, Sr-90	Comment, Preservation	Lab Sample ID
9801-00-SFB-01-C1	9/28/06	1148	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-SFB-01-C2	9/28/06	1148	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-SFB-01-C3	9/28/06	1148	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-SFB-01-04	9/28/06	1148	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-FOY-01-C1	9/28/06	1330	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-FOY-01-C2	9/28/06	1330	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-FOY-01-C3	9/28/06	1330	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9801-00-FOY-01-04	9/28/06	1330	CT	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-01-C1	9/28/06	1440	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-01-C2	9/28/06	1440	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-01-C3	9/28/06	1440	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-01-C4	9/28/06	1440	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-02-C1	9/28/06	1540	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-02-C2	9/28/06	1540	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-02-C3	9/28/06	1540	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	
9312-0002-SFB-02-C4	9/28/06	1540	Bedrock	CR	BP		X					RDL'S: Sr-90: 0.025pCi/g, H-3: 3.0pCi/g	

NOTES: PO #: 002332 MSR #: 06-1330 ☒ LTP QA ☐ Radwaste QA ☐ Non QA
SSWP 06-07-004
Shipping weight: 32 lbs. AIRBILL # 8544 5163 3458

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other:

Bill of Lading #

Internal Container Temp 22 Deg. C

Custody Sealed? X N
Custody Seal Intact? X N

1) Relinquished By: [signature] Date/Time 10/4/06 @1050
2) Received By: [signature] Date/Time 10/5/06 9:30

Figure 1. Sample Check-in List

Date/Time Received: 10/5/06 9:30

SDG#: MSR#06-1329, MSR#06-1330

Work Order Number: 173329, 173317

Shipping Container ID: 8544 5163 3458 Chain of Custody # 2006-001601, 2006-001602

1. Custody Seals on shipping container intact? Yes [X] No [ ]
2. Custody Seals dated and signed? Yes [X] No [ ]
3. Chain-of-Custody record present? Yes [X] No [ ]
4. Cooler temperature 22.9°
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:
   - [X] tape
   - [ ] hazard labels
   - [ ] custody seals
   - [ ] appropriate sample labels

9. Samples are:
   - [X] in good condition
   - [ ] leaking
   - [ ] broken
   - [ ] have air bubbles

10. Were any anomalies identified in sample receipt? 10/10/06 CAJ Yes [X] No [X] CAJ 10/5/6

11. Description of anomalies (include sample numbers): ~~① Sample FOY 9317-002 SFB-01-01 through 04 start with 9801 on containers~~
② 9801-00-SFB-01-04 on container 9801-00 SFB01-01
9801-00-FOY-01-04 ↓ 9801-00-FOY-01

Sample Custodian/Laboratory: CJ Lance Date: 10/5/06

Telephoned to: _____ On _____ By _____

① CAJ 10/10/06

② See email from client 10/5/06 - CAJ for MSR#06-1330

Subject: RE: Technical Request: MSR#06-1330
From: "John McCarthy" <McCarthy@CYAPCO.com>
Date: Mon, 23 Oct 2006 16:19:35 -0400
To: "Cheryl Jones" <cj@gel.com>

These MDAs are OK.

-----Original Message-----
From: Cheryl Jones [mailto:cj@gel.com]
Sent: Monday, October 23, 2006 3:14 PM
To: John McCarthy; Clyde Newson; Chuck Miller; Brian Couture; Jeffrey D. Wagner; Dale Randall
Subject: Technical Request: MSR#06-1330

Jack,
Please see the request below regarding the Fe-55 MDA for 3 samples under MSR#06-1330 and let me know if you can accept these data. All the

lab QC parameters pass our acceptance criteria.
Thank you,
Cheryl

-------- Original Message --------
Subject: YANK workorder 173317 Fe-55
Date: Mon, 23 Oct 2006 12:00:29 -0400
From: Melanie Aycock <mel00784@gel.com>
To: Cheryl Jones <cj@mail.gel.com>
CC: Theresa Austin <theresa.austin@gel.com>

Cheryl,
The YANK workorder 173317 Fe-55 batch has samples that are not meeting the detection limit of 3.0 pCi/g. Sample 173317006 (9801-00-FOY-01-C2) has a MDA of 3.38 pCi/g.
Sample 173317009 (9801-00-SFB-01-C1) has a MDA of 3.21 pCi/g. Sample 173317011 (9801-00-SFB-01-C3)has a
MDA of 3.19 pCi/g. There is no activity in any of the samples. Please let me know if we can send these results.
Thanks,
Melanie

--

Cheryl A. Jones
Project Manager/PM Team Leader
General Engineering Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7388
Main: 843.556.8171 x 4243
Fax: 843.766.1178
E-mail: cj@gel.com
Web: www.gel.com

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the contents that do not pertain to your business with The GEL Group, INC.

Data Review Qualifier Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 173317

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	578392
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201205231	Method Blank (MB)
1201205232	173770001(9106-0001-112F) Sample Duplicate (DUP)
1201205233	173770001(9106-0001-112F) Matrix Spike (MS)
1201205234	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173770001 (9106-0001-112F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 173317016 (9312-0002-SFB-02-C4) was recounted due to high MDA.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	578394
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201205235	Method Blank (MB)
1201205236	173770001(9106-0001-112F) Sample Duplicate (DUP)
1201205237	173770001(9106-0001-112F) Matrix Spike (MS)
1201205238	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173770001 (9106-0001-112F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 173317016 (9312-0002-SFB-02-C4) was recounted due to high MDA.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	578398
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201205248	Method Blank (MB)
1201205249	173770001(9106-0001-112F) Sample Duplicate (DUP)
1201205250	173770001(9106-0001-112F) Matrix Spike (MS)
1201205251	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173770001 (9106-0001-112F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 173317003 (9312-0002-SFB-01-C3) and 173317015 (9312-0002-SFB-02-C3) were recounted due to the quench number being outside of the calibration range.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	576804
Prep Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201201887	Method Blank (MB)
1201201888	173432001(9520-0003-032F) Sample Duplicate (DUP)
1201201889	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173432001 (9520-0003-032F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1201201887 (MB) was recounted due to count room error.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The sample and duplicate 1201201888 (9520-0003-032F) for Bi-214 and Tl-208 did not meet the relative percent difference requirement, however when the relative error ratio was calculated, precision was shown at 2.26279 for Bi-214 and 1.66238 for Tl-208.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Potassium-40	173317008
UI	Data rejected due to low abundance.	Actinium-228	173317014
			173317015
		Bismuth-214	173317008
			173317015
		Cesium-134	173317004
		Thallium-208	173317008

Method/Analysis Information

Product:	**Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	578796
Prep Batch Number:	576543

Sample ID	Client ID
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
1201206225	Method Blank (MB)
1201206226	173317009(9801-00-SFB-01-C1) Sample Duplicate (DUP)
1201206227	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317009 (9801-00-SFB-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Cesium-134	173317011
		Europium-155	173317012
UI	Data rejected due to low abundance.	Actinium-228	173317009

Method/Analysis Information

Product:	**GFPC, Sr90, solid - 0.025 pCi/g**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	577001
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201202399	Method Blank (MB)
1201202400	173317009(9801-00-SFB-01-C1) Sample Duplicate (DUP)
1201202401	173317009(9801-00-SFB-01-C1) Matrix Spike (MS)
1201202402	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 173317009 (9801-00-SFB-01-C1).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1201202399 (MB), 1201202400 (9801-00-SFB-01-C1), 173317001 (9312-0002-SFB-01-C1), 173317002 (9312-0002-SFB-01-C2), 173317003 (9312-0002-SFB-01-C3), 173317004 (9312-0002-SFB-01-C4), 173317005 (9801-00-FOY-01-C1), 173317006 (9801-00-FOY-01-C2), 173317007 (9801-00-FOY-01-C3), 173317008 (9801-00-FOY-01-C4), 173317009 (9801-00-SFB-01-C1), 173317010 (9801-00-SFB-01-C2), 173317011 (9801-00-SFB-01-C3), 173317013 (9312-0002-SFB-02-C1), 173317014 (9312-0002-SFB-02-C2) and 173317015 (9312-0002-SFB-02-C3) were recounted due to high MDAs. Samples 1201202401 (9801-00-SFB-01-C1) and 1201202402 (LCS) were recounted due to lost counts.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	576978

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201202323	Method Blank (MB)
1201202324	173317001(9312-0002-SFB-01-C1) Sample Duplicate (DUP)
1201202325	173317001(9312-0002-SFB-01-C1) Matrix Spike (MS)
1201202326	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317001 (9312-0002-SFB-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1201202324 (9312-0002-SFB-01-C1), 173317001 (9312-0002-SFB-01-C1), 173317002 (9312-0002-SFB-01-C2), 173317003 (9312-0002-SFB-01-C3), 173317004 (9312-0002-SFB-01-C4), 173317005 (9801-00-FOY-01-C1), 173317007 (9801-00-FOY-01-C3) and 173317008 (9801-00-FOY-01-C4) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	578383

Sample ID	Client ID
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
1201205218	Method Blank (MB)
1201205219	173317012(9801-00-SFB-01-C4) Sample Duplicate (DUP)
1201205220	173317012(9801-00-SFB-01-C4) Matrix Spike (MS)
1201205221	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317012 (9801-00-SFB-01-C4).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1201205219 (9801-00-SFB-01-C4), 173317009 (9801-00-SFB-01-C1), 173317010 (9801-00-SFB-01-C2), 173317011 (9801-00-SFB-01-C3) and 173317012 (9801-00-SFB-01-C4) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 373244 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples 173317 009,010,011,012 into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	576991
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201202365	Method Blank (MB)
1201202366	173317001(9312-0002-SFB-01-C1) Sample Duplicate (DUP)
1201202367	173317001(9312-0002-SFB-01-C1) Matrix Spike (MS)
1201202368	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 3.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317001 (9312-0002-SFB-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 1201202365 (MB), 1201202366 (9312-0002-SFB-01-C1), 173317002 (9312-0002-SFB-01-C2), 173317003 (9312-0002-SFB-01-C3), 173317004 (9312-0002-SFB-01-C4), 173317005 (9801-00-FOY-01-C1), 173317006 (9801-00-FOY-01-C2), 173317007 (9801-00-FOY-01-C3), 173317008 (9801-00-FOY-01-C4), 173317009 (9801-00-SFB-01-C1), 173317010 (9801-00-SFB-01-C2), 173317011 (9801-00-SFB-01-C3), 173317012 (9801-00-SFB-01-C4), 173317013 (9312-0002-SFB-02-C1), 173317014 (9312-0002-SFB-02-C2), 173317015 (9312-0002-SFB-02-C3) and 173317016 (9312-0002-SFB-02-C4) were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 374941 was generated due to RDL less than MDA. 1. Samples 173317006, 173317009, and 173317011 did not meet the detection limit. 1. Client was contacted and granted relief to report data.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	581329
Prep Batch Number:	576639
Dry Soil Prep GL-RAD-A-021 Batch Number:	576161

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201212320	Method Blank (MB)
1201212321	173317001(9312-0002-SFB-01-C1) Sample Duplicate (DUP)
1201212322	173317001(9312-0002-SFB-01-C1) Matrix Spike (MS)
1201212323	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317001 (9312-0002-SFB-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were reprepped due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid - 3 pCi/g**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	576997

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201202383	Method Blank (MB)
1201202384	173317005(9801-00-FOY-01-C1) Sample Duplicate (DUP)
1201202385	173317005(9801-00-FOY-01-C1) Matrix Spike (MS)
1201202386	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 173317005 (9801-00-FOY-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 173317016 (9312-0002-SFB-02-C4) was recounted due to high MDA. Sample 173317003 (9312-0002-SFB-01-C3) was recounted due to the quench number being outside the calibration range. The batch was recounted due to a high LCS recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	576970

Sample ID	Client ID
173317001	9312-0002-SFB-01-C1
173317002	9312-0002-SFB-01-C2
173317003	9312-0002-SFB-01-C3
173317004	9312-0002-SFB-01-C4
173317005	9801-00-FOY-01-C1
173317006	9801-00-FOY-01-C2
173317007	9801-00-FOY-01-C3
173317008	9801-00-FOY-01-C4
173317013	9312-0002-SFB-02-C1
173317014	9312-0002-SFB-02-C2
173317015	9312-0002-SFB-02-C3
173317016	9312-0002-SFB-02-C4
1201202300	Method Blank (MB)
1201202301	173435001(9520-0003-039F) Sample Duplicate (DUP)
1201202302	173435001(9520-0003-039F) Matrix Spike (MS)
1201202303	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173435001 (9520-0003-039F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid-HTD2,ALL2 (CT)**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	577741

Sample ID	Client ID
173317009	9801-00-SFB-01-C1
173317010	9801-00-SFB-01-C2
173317011	9801-00-SFB-01-C3
173317012	9801-00-SFB-01-C4
1201203956	Method Blank (MB)
1201203957	173317009(9801-00-SFB-01-C1) Sample Duplicate (DUP)
1201203958	173317009(9801-00-SFB-01-C1) Matrix Spike (MS)
1201203959	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 173317009 (9801-00-SFB-01-C1).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all

of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 10/24/06

General Engineering Laboratories
Form GEL-NCR
Rev. 06/05

NCR Report No.: 373244
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE EML HASL-300, Tc-02-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
578383	See Below		

Potentially affected work order(s)(SDG): 173317(MSR#06-1330)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the samples 173317 009,010,011,012 into the batch prior to analysis, however the samples did remain in their custody at all times.	1. The error has been corrected and the analyst has been instructed on the proper scanning procedures.

Originator's Name:
Amy Scott 19-OCT-06

Data Validator/Group Leader:
Lesley Anderson 22-OCT-06

Quality Review:

Director:

General Engineering Laboratories
Form GEL-NCR
Rev. 06/05

NCR Report No.: 374941
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
576991	See Below		

Potentially affected work order(s)(SDG): 173317(MSR#06-1330)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 173317006, 173317009, and 173317011 did not meet the detection limit.	1. Client was contacted and granted relief to report data.

Originator's Name:
Melanie Aycock 23-OCT-06

Data Validator/Group Leader:
Heather Anderson 24-OCT-06

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#06-1330 GEL Work Order: 173317

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-01-C1	Project:	YANK01204
Sample ID:	173317001	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.377%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00815	+/-0.0185	0.00825	+/-0.0186	0.0414	pCi/g		MXA 1	10/16/06	0853	578392	1
Curium-242	U	0.00994	+/-0.0195	0.00	+/-0.0195	0.0269	pCi/g						
Curium-243/244	U	0.00479	+/-0.0191	0.0117	+/-0.0191	0.0483	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00854	+/-0.0178	0.0198	+/-0.0178	0.0596	pCi/g		MXA 1	10/15/06	0112	578394	2
Plutonium-239/240	U	-0.0106	+/-0.0167	0.0162	+/-0.0167	0.0523	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.405	+/-1.72	1.43	+/-1.72	2.98	pCi/g		MXA 1	10/17/06	0931	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.510	+/-0.254	0.091	+/-0.254	0.193	pCi/g		MJH1	10/12/06	2016	576804	4
Americium-241	U	-0.00309	+/-0.0339	0.0247	+/-0.0339	0.0508	pCi/g						
Bismuth-212	U	0.354	+/-0.432	0.212	+/-0.432	0.443	pCi/g						
Bismuth-214		0.383	+/-0.120	0.0536	+/-0.120	0.111	pCi/g						
Cesium-134	U	0.0521	+/-0.0396	0.0336	+/-0.0396	0.0703	pCi/g						
Cesium-137	U	0.00317	+/-0.035	0.028	+/-0.035	0.0586	pCi/g						
Cobalt-60	U	0.0212	+/-0.0367	0.0311	+/-0.0367	0.0663	pCi/g						
Europium-152	U	0.00234	+/-0.0783	0.0601	+/-0.0783	0.125	pCi/g						
Europium-154	U	-0.0624	+/-0.113	0.0874	+/-0.113	0.186	pCi/g						
Europium-155	U	0.029	+/-0.0626	0.046	+/-0.0626	0.0944	pCi/g						
Lead-212		0.455	+/-0.0857	0.0374	+/-0.0857	0.0767	pCi/g						
Lead-214		0.615	+/-0.131	0.041	+/-0.131	0.0852	pCi/g						
Manganese-54	U	0.00539	+/-0.0366	0.029	+/-0.0366	0.0608	pCi/g						
Niobium-94	U	-0.00495	+/-0.0307	0.0241	+/-0.0307	0.0505	pCi/g						
Potassium-40		8.73	+/-1.18	0.279	+/-1.18	0.600	pCi/g						
Radium-226		0.383	+/-0.120	0.0536	+/-0.120	0.111	pCi/g						
Silver-108m	U	0.0126	+/-0.0261	0.0217	+/-0.0261	0.0451	pCi/g						
Thallium-208		0.154	+/-0.071	0.0254	+/-0.071	0.053	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	-0.00892	+/-0.00951	0.00886	+/-0.00951	0.0195	pCi/g		TC1	10/18/06	2204	577001	5

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C1 Project: YANK01204
Sample ID: 173317001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	-1.42	+/-1.22	1.05	+/-1.22	2.16	pCi/g		DFA1	10/17/06	1737	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.0679	+/-0.373	0.314	+/-0.373	0.641	pCi/g		AXD2	10/10/06	1713	576970	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.513	+/-1.71	1.23	+/-1.71	2.49	pCi/g		MXP1	10/19/06	0653	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	3.06	+/-2.55	1.97	+/-2.55	4.20	pCi/g		MXP1	10/23/06	1906	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.459	+/-0.362	0.293	+/-0.362	0.601	pCi/g		KXR1	10/17/06	2020	576978	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C1 Project: YANK01204
Sample ID: 173317001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	69	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	80	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	85	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	85	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	52	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	52	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	61	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	77	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-01-C2	Project:	YANK01204
Sample ID:	173317002	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.282%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.000398	+/-0.00703	0.00653	+/-0.00703	0.0328	pCi/g		MXA 1	10/16/06	0853	578392	1
Curium-242		0.0236	+/-0.0267	0.00	+/-0.0269	0.0213	pCi/g						
Curium-243/244	U	0.00	+/-0.0143	0.00	+/-0.0143	0.0197	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.0164	+/-0.0102	0.0194	+/-0.0103	0.0573	pCi/g		MXA 1	10/15/06	0112	578394	2
Plutonium-239/240	U	-0.00328	+/-0.0141	0.00867	+/-0.0141	0.0359	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	1.53	+/-2.21	1.80	+/-2.22	3.75	pCi/g		MXA 1	10/17/06	0952	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.633	+/-0.146	0.0537	+/-0.146	0.118	pCi/g		MJH1	10/12/06	1658	576804	4
Americium-241	U	-0.0428	+/-0.0828	0.0688	+/-0.0828	0.143	pCi/g						
Bismuth-212		0.545	+/-0.226	0.119	+/-0.226	0.259	pCi/g						
Bismuth-214		0.677	+/-0.0843	0.0295	+/-0.0843	0.0632	pCi/g						
Cesium-134	U	0.0429	+/-0.0318	0.0231	+/-0.0318	0.0491	pCi/g						
Cesium-137	U	0.0286	+/-0.0312	0.0159	+/-0.0312	0.0343	pCi/g						
Cobalt-60	U	0.00253	+/-0.0186	0.0163	+/-0.0186	0.0366	pCi/g						
Europium-152	U	0.0131	+/-0.0576	0.0356	+/-0.0576	0.0759	pCi/g						
Europium-154	U	0.00803	+/-0.0541	0.0477	+/-0.0541	0.106	pCi/g						
Europium-155	U	0.0577	+/-0.0624	0.0468	+/-0.0624	0.097	pCi/g						
Lead-212		0.582	+/-0.0564	0.0227	+/-0.0564	0.0475	pCi/g						
Lead-214		0.707	+/-0.0823	0.0297	+/-0.0823	0.0629	pCi/g						
Manganese-54	U	-0.00546	+/-0.0197	0.0163	+/-0.0197	0.0353	pCi/g						
Niobium-94	U	-0.000784	+/-0.0171	0.0147	+/-0.0171	0.0317	pCi/g						
Potassium-40		8.90	+/-0.831	0.140	+/-0.831	0.320	pCi/g						
Radium-226		0.677	+/-0.0843	0.0295	+/-0.0843	0.0632	pCi/g						
Silver-108m	U	0.00528	+/-0.0151	0.014	+/-0.0151	0.0297	pCi/g						
Thallium-208		0.185	+/-0.0414	0.014	+/-0.0414	0.0303	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00891	+/-0.00857	0.00634	+/-0.00857	0.0141	pCi/g		TC1	10/18/06	2204	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 24, 2006

Client Sample ID: 9312-0002-SFB-01-C2
Sample ID: 173317002

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	-0.466	+/-1.47	1.27	+/-1.47	2.74	pCi/g		DFA1	10/17/06	1225	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.283	+/-0.429	0.365	+/-0.429	0.744	pCi/g		AXD2	10/10/06	1801	576970	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.00832	+/-1.78	1.24	+/-1.78	2.54	pCi/g		MXP1	10/20/06	1751	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	3.58	+/-2.59	1.98	+/-2.59	4.21	pCi/g		MXP1	10/23/06	1923	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.487	+/-0.367	0.297	+/-0.367	0.609	pCi/g		KXR1	10/17/06	2052	576978	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312–0002–SFB–01–C2 Project: YANK01204
Sample ID: 173317002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL–RAD–A–026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid–TRI	85	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–TRU2,ALL2	82	(15%–125%)
Plutonium–241	Liquid Scint Pu241, Solid–TRU2,/	67	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid–TRU2,/	67	(25%–125%)
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	67	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	67	(25%–125%)
Iron–55	Liquid Scint Fe55, Solid–HTD2,Al	61	(15%–125%)
Nickel–63	Liquid Scint Ni63, Solid–HTD2,Al	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–HTD2,A	74	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol–condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy––Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-01-C3	Project:	YANK01204
Sample ID:	173317003	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.0103	+/-0.0187	0.00816	+/-0.0187	0.0337	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00695	+/-0.0136	0.00	+/-0.0137	0.0188	pCi/g						
Curium-243/244	U	-0.00618	+/-0.014	0.0116	+/-0.014	0.0406	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00789	+/-0.0164	0.0183	+/-0.0165	0.0551	pCi/g	1	MXA	10/15/06	0543	578394	2
Plutonium-239/240	U	-0.00299	+/-0.0155	0.015	+/-0.0155	0.0483	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.398	+/-2.42	2.02	+/-2.42	4.21	pCi/g	1	MXA	10/18/06	1154	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.742	+/-0.177	0.0624	+/-0.177	0.137	pCi/g		MJH1	10/12/06	1659	576804	5
Americium-241	U	-0.00829	+/-0.0279	0.0251	+/-0.0279	0.0521	pCi/g						
Bismuth-212	U	0.287	+/-0.287	0.155	+/-0.287	0.335	pCi/g						
Bismuth-214		0.581	+/-0.0873	0.0366	+/-0.0873	0.0783	pCi/g						
Cesium-134	U	0.0191	+/-0.0241	0.0218	+/-0.0241	0.0472	pCi/g						
Cesium-137	U	-0.00438	+/-0.0283	0.0206	+/-0.0283	0.0443	pCi/g						
Cobalt-60	U	0.00575	+/-0.0218	0.0191	+/-0.0218	0.043	pCi/g						
Europium-152	U	0.0037	+/-0.0527	0.0471	+/-0.0527	0.0996	pCi/g						
Europium-154	U	0.0132	+/-0.0765	0.0661	+/-0.0765	0.145	pCi/g						
Europium-155	U	0.0429	+/-0.0506	0.0423	+/-0.0506	0.088	pCi/g						
Lead-212		0.602	+/-0.060	0.0302	+/-0.060	0.0629	pCi/g						
Lead-214		0.584	+/-0.0865	0.032	+/-0.0865	0.0678	pCi/g						
Manganese-54	U	-0.00217	+/-0.0226	0.0186	+/-0.0226	0.0404	pCi/g						
Niobium-94	U	-0.0112	+/-0.0221	0.0178	+/-0.0221	0.0383	pCi/g						
Potassium-40		10.9	+/-0.934	0.143	+/-0.934	0.333	pCi/g						
Radium-226		0.581	+/-0.0873	0.0366	+/-0.0873	0.0783	pCi/g						
Silver-108m	U	-0.00567	+/-0.019	0.0163	+/-0.019	0.0347	pCi/g						
Thallium-208		0.185	+/-0.0563	0.0208	+/-0.0563	0.0443	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00813	+/-0.00776	0.00602	+/-0.00776	0.0129	pCi/g		TC1	10/18/06	2205	577001	6
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C3 — Project: YANK01204
Sample ID: 173317003 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	0.948	+/-0.997	0.783	+/-0.997	1.67	pCi/g		DFA1	10/19/06	1907	576997	8
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.249	+/-0.407	0.346	+/-0.407	0.706	pCi/g		AXD2	10/10/06	1850	576970	12
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.204	+/-1.76	1.23	+/-1.76	2.52	pCi/g		MXP1	10/20/06	1914	576991	13
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	3.17	+/-2.78	2.16	+/-2.78	4.59	pCi/g		MXP1	10/23/06	1939	581329	14
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99		0.558	+/-0.314	0.258	+/-0.314	0.522	pCi/g		KXR1	10/17/06	1614	576978	16
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA 906.0 Modified
11	EPA 906.0 Modified
12	EPA EERF C-01 Modified
13	DOE RESL Fe-1, Modified
14	DOE RESL Ni-1, Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C3 Project: YANK01204
Sample ID: 173317003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	DOE RESL Ni-1, Modified												
16	DOE EML HASL-300, Tc-02-RC Modified												
17	DOE EML HASL-300, Tc-02-RC Modified												
18	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	85	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	86	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	69	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	69	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	76	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	76	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	54	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	79	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	79	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	54	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312–0002–SFB–01–C3 Project: YANK01204
Sample ID: 173317003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-01-C4	Project:	YANK01204
Sample ID:	173317004	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.261%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00396	+/-0.00796	0.011	+/-0.00798	0.041	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	-0.00366	+/-0.0158	0.00968	+/-0.0158	0.040	pCi/g						
Curium-243/244	U	-0.0017	+/-0.0142	0.00634	+/-0.0143	0.0318	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00279	+/-0.022	0.0198	+/-0.022	0.0586	pCi/g	1	MXA	10/15/06	0543	578394	2
Plutonium-239/240	U	0.00363	+/-0.0145	0.00886	+/-0.0145	0.0366	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.185	+/-1.95	1.63	+/-1.95	3.39	pCi/g	1	MXA	10/17/06	1035	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.940	+/-0.175	0.0538	+/-0.175	0.118	pCi/g		MJH1	10/12/06	1659	576804	4
Americium-241	U	0.00332	+/-0.0933	0.078	+/-0.0933	0.161	pCi/g						
Bismuth-212		0.619	+/-0.227	0.138	+/-0.227	0.296	pCi/g						
Bismuth-214		0.531	+/-0.0862	0.0312	+/-0.0862	0.0666	pCi/g						
Cesium-134	UI	0.00	+/-0.0379	0.0235	+/-0.0379	0.0498	pCi/g						
Cesium-137		0.0439	+/-0.0372	0.0153	+/-0.0372	0.0331	pCi/g						
Cobalt-60	U	-0.0178	+/-0.0214	0.0166	+/-0.0214	0.0371	pCi/g						
Europium-152	U	-0.0126	+/-0.0575	0.0497	+/-0.0575	0.104	pCi/g						
Europium-154	U	0.00749	+/-0.0581	0.0513	+/-0.0581	0.113	pCi/g						
Europium-155	U	0.0463	+/-0.0776	0.0491	+/-0.0776	0.102	pCi/g						
Lead-212		1.00	+/-0.0682	0.0289	+/-0.0682	0.060	pCi/g						
Lead-214		0.562	+/-0.0827	0.0363	+/-0.0827	0.076	pCi/g						
Manganese-54	U	0.0274	+/-0.0236	0.0146	+/-0.0236	0.0319	pCi/g						
Niobium-94	U	0.0104	+/-0.0179	0.0164	+/-0.0179	0.0351	pCi/g						
Potassium-40		6.55	+/-0.691	0.149	+/-0.691	0.336	pCi/g						
Radium-226		0.531	+/-0.0862	0.0312	+/-0.0862	0.0666	pCi/g						
Silver-108m	U	0.00179	+/-0.0183	0.0158	+/-0.0183	0.0334	pCi/g						
Thallium-208		0.272	+/-0.0459	0.0182	+/-0.0459	0.0386	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0184	+/-0.00859	0.00601	+/-0.0086	0.013	pCi/g		TC1	10/18/06	2205	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C4 Project: YANK01204
Sample ID: 173317004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	-0.197	+/-1.45	1.23	+/-1.45	2.66	pCi/g		DFA1	10/17/06	1258	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.20	+/-0.332	0.282	+/-0.332	0.575	pCi/g		AXD2	10/10/06	1938	576970	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.338	+/-1.91	1.28	+/-1.91	2.63	pCi/g		MXP1	10/19/06	2246	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63		5.41	+/-2.91	2.15	+/-2.91	4.58	pCi/g		MXP1	10/23/06	1955	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	-0.00314	+/-0.348	0.292	+/-0.348	0.599	pCi/g		KXR1	10/17/06	2124	576978	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-01-C4 Project: YANK01204
Sample ID: 173317004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	81	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	81	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	76	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	76	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	70	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	77	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-FOY-01-C1	Project:	YANK01204
Sample ID:	173317005	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	6.03%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00285	+/-0.0154	0.0107	+/-0.0154	0.0399	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium-242	U	0.00564	+/-0.015	0.00666	+/-0.015	0.0334	pCi/g						
Curium-243/244	U	-0.0066	+/-0.0149	0.0123	+/-0.0149	0.0433	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.0355	+/-0.0174	0.0332	+/-0.0178	0.0913	pCi/g	1	MXA1	10/15/06	0543	578394	2
Plutonium-239/240	U	-0.00812	+/-0.0297	0.0287	+/-0.0297	0.0824	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	-0.367	+/-1.70	1.44	+/-1.70	3.00	pCi/g	1	MXA1	10/17/06	1056	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.370	+/-0.122	0.054	+/-0.122	0.118	pCi/g		MJH1	10/12/06	1700	576804	4
Americium-241	U	-0.0457	+/-0.087	0.0674	+/-0.087	0.140	pCi/g						
Bismuth-212	U	0.129	+/-0.216	0.115	+/-0.216	0.248	pCi/g						
Bismuth-214		0.484	+/-0.0858	0.0282	+/-0.0858	0.0604	pCi/g						
Cesium-134	U	0.0201	+/-0.022	0.0177	+/-0.022	0.0381	pCi/g						
Cesium-137	U	0.00459	+/-0.0186	0.0164	+/-0.0186	0.0352	pCi/g						
Cobalt-60	U	0.0108	+/-0.0268	0.0142	+/-0.0268	0.0321	pCi/g						
Europium-152	U	-0.0345	+/-0.0448	0.036	+/-0.0448	0.0763	pCi/g						
Europium-154	U	0.0376	+/-0.055	0.0509	+/-0.055	0.112	pCi/g						
Europium-155	U	0.031	+/-0.0469	0.0451	+/-0.0469	0.0937	pCi/g						
Lead-212		0.387	+/-0.0493	0.0258	+/-0.0493	0.0536	pCi/g						
Lead-214		0.538	+/-0.0715	0.029	+/-0.0715	0.0612	pCi/g						
Manganese-54	U	0.00538	+/-0.0177	0.0154	+/-0.0177	0.0334	pCi/g						
Niobium-94	U	0.00365	+/-0.0168	0.0147	+/-0.0168	0.0316	pCi/g						
Potassium-40		7.55	+/-0.695	0.155	+/-0.695	0.347	pCi/g						
Radium-226		0.484	+/-0.0858	0.0282	+/-0.0858	0.0604	pCi/g						
Silver-108m	U	0.00242	+/-0.0132	0.0121	+/-0.0132	0.0259	pCi/g						
Thallium-208		0.174	+/-0.0365	0.0151	+/-0.0365	0.0323	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00571	+/-0.00758	0.00596	+/-0.00758	0.0129	pCi/g		TC1	10/18/06	2205	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C1 — Project: YANK01204
Sample ID: 173317005 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid - 3 pCi/g													
Tritium	U	-0.344	+/-1.52	1.30	+/-1.52	2.82	pCi/g		DFA1	10/17/06	1314	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.426	+/-0.357	0.307	+/-0.357	0.627	pCi/g		AXD2	10/10/06	2026	576970	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	0.267	+/-2.03	1.42	+/-2.03	2.89	pCi/g		MXP1	10/20/06	2036	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	1.16	+/-2.41	1.96	+/-2.41	4.16	pCi/g		MXP1	10/23/06	2011	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.269	+/-0.583	0.482	+/-0.583	0.993	pCi/g		KXR1	10/17/06	0001	576978	13
Solid Preparation													
Laboratory Composite - CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	GL-RAD-A-026

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C1 — Project: YANK01204
Sample ID: 173317005 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	81	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	69	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	87	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	87	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	57	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	84	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	85	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-FOY-01-C2	Project:	YANK01204
Sample ID:	173317006	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	5.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00288	+/-0.0155	0.0107	+/-0.0155	0.0401	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00	+/-0.0146	0.00	+/-0.0146	0.0202	pCi/g						
Curium-243/244	U	0.00193	+/-0.0147	0.0107	+/-0.0147	0.0402	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.00587	+/-0.0416	0.0329	+/-0.0416	0.0891	pCi/g	1	MXA	10/15/06	0837	578394	2
Plutonium-239/240	U	0.00311	+/-0.0322	0.0257	+/-0.0322	0.0748	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.947	+/-1.85	1.52	+/-1.86	3.17	pCi/g	1	MXA	10/17/06	1118	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.306	+/-0.157	0.0433	+/-0.157	0.0922	pCi/g		MJH1	10/12/06	2016	576804	4
Americium-241	U	-0.00533	+/-0.0968	0.0688	+/-0.0968	0.142	pCi/g						
Bismuth-212		0.440	+/-0.278	0.101	+/-0.278	0.214	pCi/g						
Bismuth-214		0.371	+/-0.0841	0.0277	+/-0.0841	0.0577	pCi/g						
Cesium-134	U	0.0155	+/-0.0189	0.0162	+/-0.0189	0.034	pCi/g						
Cesium-137	U	-0.00507	+/-0.0178	0.0136	+/-0.0178	0.0286	pCi/g						
Cobalt-60	U	0.0149	+/-0.0182	0.0161	+/-0.0182	0.0344	pCi/g						
Europium-152	U	0.0536	+/-0.0582	0.0357	+/-0.0582	0.074	pCi/g						
Europium-154	U	-0.00658	+/-0.0535	0.044	+/-0.0535	0.0941	pCi/g						
Europium-155	U	0.0233	+/-0.0478	0.038	+/-0.0478	0.0782	pCi/g						
Lead-212		0.356	+/-0.0443	0.0185	+/-0.0443	0.0382	pCi/g						
Lead-214		0.484	+/-0.0733	0.0237	+/-0.0733	0.0493	pCi/g						
Manganese-54	U	0.00147	+/-0.0177	0.0145	+/-0.0177	0.0305	pCi/g						
Niobium-94	U	-0.00221	+/-0.0155	0.0126	+/-0.0155	0.0265	pCi/g						
Potassium-40		6.83	+/-0.611	0.148	+/-0.611	0.319	pCi/g						
Radium-226		0.371	+/-0.0841	0.0277	+/-0.0841	0.0577	pCi/g						
Silver-108m	U	-0.0102	+/-0.0145	0.0111	+/-0.0145	0.0233	pCi/g						
Thallium-208		0.102	+/-0.0322	0.014	+/-0.0322	0.0293	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.013	+/-0.0087	0.0065	+/-0.0087	0.0139	pCi/g		TC1	10/18/06	2205	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801–00–FOY–01–C2 Project: YANK01204
Sample ID: 173317006 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–1.21	+/–1.39	1.26	+/–1.39	2.72	pCi/g		DFA1	10/17/06	1330	576997	7
Liquid Scint C14, Solid–HTD2,ALL2 (CT)													
Carbon–14	U	–0.482	+/–0.407	0.350	+/–0.407	0.715	pCi/g		AXD2	10/10/06	2114	576970	9
Liquid Scint Fe55, Solid–HTD2,ALL2 (CT)													
Iron–55	U	–2.44	+/–2.11	1.66	+/–2.11	3.38	pCi/g		MXP1	10/20/06	0734	576991	10
Liquid Scint Ni63, Solid–HTD2,ALL2 (CT)													
Nickel–63	U	0.638	+/–2.62	2.16	+/–2.62	4.59	pCi/g		MXP1	10/23/06	2028	581329	11
Liquid Scint Tc99, Solid–HTD2,ALL2 (CT)													
Technetium–99	U	0.343	+/–0.407	0.333	+/–0.407	0.685	pCi/g		KXR1	10/17/06	2155	576978	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	AXP2	10/05/06	1948	576161
GL–RAD–A–026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Pu–11–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C–01 Modified
10	DOE RESL Fe–1, Modified
11	DOE RESL Ni–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE EML HASL–300, Tc–02–RC Modified
14	DOE EML HASL–300, Tc–02–RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C2 Project: YANK01204
Sample ID: 173317006 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	83	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	67	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	81	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	75	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	75	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	29	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	67	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-FOY-01-C3	Project:	YANK01204
Sample ID:	173317007	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	5.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00408	+/-0.0142	0.00838	+/-0.0143	0.0346	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00	+/-0.014	0.00	+/-0.014	0.0193	pCi/g						
Curium-243/244	U	0.00	+/-0.013	0.00	+/-0.013	0.0179	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00843	+/-0.00739	0.0141	+/-0.00744	0.0472	pCi/g	1	MXA	10/15/06	0837	578394	2
Plutonium-239/240	U	0.00759	+/-0.0256	0.0178	+/-0.0256	0.0547	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	1.14	+/-1.89	1.54	+/-1.89	3.22	pCi/g	1	MXA	10/17/06	1139	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.407	+/-0.157	0.0476	+/-0.157	0.104	pCi/g		MJH1	10/12/06	1700	576804	4
Americium-241	U	0.0416	+/-0.116	0.0968	+/-0.116	0.200	pCi/g						
Bismuth-212		0.402	+/-0.230	0.102	+/-0.230	0.221	pCi/g						
Bismuth-214		0.506	+/-0.0866	0.0283	+/-0.0866	0.0603	pCi/g						
Cesium-134	U	0.0212	+/-0.0188	0.0179	+/-0.0188	0.0383	pCi/g						
Cesium-137	U	0.00126	+/-0.0164	0.0146	+/-0.0164	0.0313	pCi/g						
Cobalt-60	U	0.0165	+/-0.0184	0.0176	+/-0.0184	0.0385	pCi/g						
Europium-152	U	-0.0364	+/-0.0468	0.0393	+/-0.0468	0.0827	pCi/g						
Europium-154	U	-0.0178	+/-0.0594	0.0421	+/-0.0594	0.0935	pCi/g						
Europium-155	U	0.0323	+/-0.0508	0.044	+/-0.0508	0.0913	pCi/g						
Lead-212		0.348	+/-0.0537	0.0235	+/-0.0537	0.0488	pCi/g						
Lead-214		0.640	+/-0.0957	0.0299	+/-0.0957	0.0628	pCi/g						
Manganese-54	U	0.000173	+/-0.0174	0.015	+/-0.0174	0.0324	pCi/g						
Niobium-94	U	0.0211	+/-0.0179	0.0154	+/-0.0179	0.0327	pCi/g						
Potassium-40		7.38	+/-0.820	0.136	+/-0.820	0.305	pCi/g						
Radium-226		0.506	+/-0.0866	0.0283	+/-0.0866	0.0603	pCi/g						
Silver-108m	U	0.00378	+/-0.0163	0.0126	+/-0.0163	0.0268	pCi/g						
Thallium-208		0.139	+/-0.0342	0.014	+/-0.0342	0.0299	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00972	+/-0.00726	0.00543	+/-0.00726	0.0117	pCi/g		TC1	10/18/06	2205	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C3 Project: YANK01204
Sample ID: 173317007 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	1.18	+/-1.64	1.29	+/-1.64	2.79	pCi/g		DFA1	10/17/06	1347	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.399	+/-0.367	0.315	+/-0.367	0.643	pCi/g		AXD2	10/10/06	2202	576970	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.82	+/-1.75	1.31	+/-1.75	2.68	pCi/g		MXP1	10/20/06	0938	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	1.00	+/-2.44	1.99	+/-2.44	4.24	pCi/g		MXP1	10/23/06	2044	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	-0.0374	+/-0.330	0.278	+/-0.330	0.570	pCi/g		KXR1	10/17/06	2227	576978	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801–00–FOY–01–C3 Project: YANK01204
Sample ID: 173317007 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL–RAD–A–026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid–TRI	85	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–TRU2,ALL2	87	(15%–125%)
Plutonium–241	Liquid Scint Pu241, Solid–TRU2,/	81	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid–TRU2,/	81	(25%–125%)
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	82	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	82	(25%–125%)
Iron–55	Liquid Scint Fe55, Solid–HTD2,Al	47	(15%–125%)
Nickel–63	Liquid Scint Ni63, Solid–HTD2,Al	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–HTD2,Al	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–HTD2,A	81	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol–condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy––Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-FOY-01-C4	Project:	YANK01204
Sample ID:	173317008	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	4.65%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00924	+/-0.0142	0.00871	+/-0.0142	0.036	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium-242	U	0.00742	+/-0.0145	0.00	+/-0.0146	0.0201	pCi/g						
Curium-243/244	U	-0.0148	+/-0.0097	0.0185	+/-0.00986	0.0556	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00181	+/-0.00355	0.00677	+/-0.00356	0.034	pCi/g	1	MXA1	10/15/06	0837	578394	2
Plutonium-239/240	U	-0.00724	+/-0.0071	0.0135	+/-0.00715	0.0475	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	1.93	+/-2.22	1.79	+/-2.23	3.74	pCi/g	1	MXA1	10/17/06	1200	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.227	+/-0.114	0.0392	+/-0.114	0.0831	pCi/g		MJH1	10/12/06	2016	576804	4
Americium-241	U	0.0111	+/-0.0502	0.0357	+/-0.0502	0.0734	pCi/g						
Bismuth-212	U	0.214	+/-0.120	0.108	+/-0.120	0.225	pCi/g						
Bismuth-214	UI	0.00	+/-0.061	0.042	+/-0.061	0.086	pCi/g						
Cesium-134	U	0.00762	+/-0.0145	0.0123	+/-0.0145	0.026	pCi/g						
Cesium-137	U	0.000214	+/-0.014	0.011	+/-0.014	0.0232	pCi/g						
Cobalt-60	U	-0.00394	+/-0.0157	0.0123	+/-0.0157	0.0265	pCi/g						
Europium-152	U	0.0062	+/-0.0339	0.0277	+/-0.0339	0.0575	pCi/g						
Europium-154	U	-0.0102	+/-0.0461	0.0363	+/-0.0461	0.0777	pCi/g						
Europium-155	U	0.00398	+/-0.0394	0.0307	+/-0.0394	0.0632	pCi/g						
Lead-212		0.234	+/-0.0424	0.0174	+/-0.0424	0.0358	pCi/g						
Lead-214		0.368	+/-0.0686	0.0195	+/-0.0686	0.0406	pCi/g						
Manganese-54	U	-0.00552	+/-0.0139	0.0112	+/-0.0139	0.0236	pCi/g						
Niobium-94	U	0.00631	+/-0.0137	0.0103	+/-0.0137	0.0215	pCi/g						
Potassium-40	UI	0.00	+/-0.571	0.114	+/-0.571	0.247	pCi/g						
Radium-226		0.305	+/-0.061	0.0233	+/-0.061	0.0485	pCi/g						
Silver-108m	U	-0.00865	+/-0.012	0.00925	+/-0.012	0.0193	pCi/g						
Thallium-208	UI	0.00	+/-0.0299	0.0185	+/-0.0299	0.038	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	-0.00399	+/-0.00665	0.00591	+/-0.00665	0.0128	pCi/g		TC1	10/19/06	1514	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C4 — Project: YANK01204
Sample ID: 173317008 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid - 3 pCi/g													
Tritium	U	-0.532	+/-1.45	1.25	+/-1.45	2.71	pCi/g		DFA1	10/17/06	1403	576997	8
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.216	+/-0.381	0.324	+/-0.381	0.661	pCi/g		AXD2	10/10/06	2250	576970	10
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-2.08	+/-1.82	1.38	+/-1.82	2.81	pCi/g		MXP1	10/20/06	1141	576991	11
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	1.15	+/-2.41	1.95	+/-2.41	4.16	pCi/g		MXP1	10/23/06	2100	581329	12
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.068	+/-0.580	0.485	+/-0.580	0.999	pCi/g		KXR1	10/17/06	0050	576978	14
Solid Preparation													
Laboratory Composite - CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE RESL Ni-1, Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-FOY-01-C4 Project: YANK01204
Sample ID: 173317008 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	Mtd
15	GL-RAD-A-026										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	79	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	82	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,A	67	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	67	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	73	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	73	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	45	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	82	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	82	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	82	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-SFB-01-C1	Project:	YANK01204
Sample ID:	173317009	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	4.87%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00729	+/-0.0166	0.00675	+/-0.0166	0.0339	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00	+/-0.0159	0.00	+/-0.0159	0.022	pCi/g						
Curium-243/244	U	0.00211	+/-0.016	0.0117	+/-0.016	0.0438	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.00243	+/-0.0184	0.0135	+/-0.0184	0.0504	pCi/g	1	MXA	10/15/06	0837	578394	2
Plutonium-239/240	U	0.0045	+/-0.0179	0.011	+/-0.0179	0.0454	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.470	+/-2.22	1.84	+/-2.22	3.85	pCi/g	1	MXA	10/17/06	1222	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228	UI	0.00	+/-0.180	0.148	+/-0.180	0.310	pCi/g		MJH1	10/16/06	1451	578796	4
Americium-241	U	0.0462	+/-0.0627	0.0467	+/-0.0627	0.096	pCi/g						
Bismuth-212	U	0.344	+/-0.355	0.184	+/-0.355	0.400	pCi/g						
Bismuth-214		0.361	+/-0.150	0.0652	+/-0.150	0.137	pCi/g						
Cesium-134	U	0.0431	+/-0.0325	0.0311	+/-0.0325	0.0667	pCi/g						
Cesium-137		20.2	+/-0.343	0.0332	+/-0.343	0.0702	pCi/g						
Cobalt-60	U	-0.0088	+/-0.0319	0.0258	+/-0.0319	0.0574	pCi/g						
Europium-152	U	0.0944	+/-0.144	0.127	+/-0.144	0.261	pCi/g						
Europium-154	U	0.0441	+/-0.0938	0.0748	+/-0.0938	0.166	pCi/g						
Europium-155	U	0.099	+/-0.0899	0.0811	+/-0.0899	0.167	pCi/g						
Lead-212		0.341	+/-0.116	0.0646	+/-0.116	0.132	pCi/g						
Lead-214		0.417	+/-0.183	0.0878	+/-0.183	0.181	pCi/g						
Manganese-54	U	0.0085	+/-0.0316	0.0273	+/-0.0316	0.0587	pCi/g						
Niobium-94	U	0.033	+/-0.0283	0.0266	+/-0.0283	0.0567	pCi/g						
Potassium-40		6.73	+/-0.880	0.216	+/-0.880	0.490	pCi/g						
Radium-226		0.361	+/-0.150	0.0652	+/-0.150	0.137	pCi/g						
Silver-108m	U	0.00172	+/-0.0559	0.0504	+/-0.0559	0.104	pCi/g						
Thallium-208		0.177	+/-0.0611	0.0345	+/-0.0611	0.0725	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.121	+/-0.028	0.0108	+/-0.0282	0.0256	pCi/g		TC1	10/18/06	1416	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C1 — Project: YANK01204
Sample ID: 173317009 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium		45.5	+/-3.85	1.32	+/-3.92	2.85	pCi/g		DFA1	10/17/06	1419	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.592	+/-0.418	0.362	+/-0.418	0.738	pCi/g		AXD2	10/12/06	2107	577741	9
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-1.4	+/-2.06	1.58	+/-2.06	3.21	pCi/g		MXP1	10/20/06	1345	576991	10
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.754	+/-2.70	2.22	+/-2.70	4.73	pCi/g		MXP1	10/23/06	2117	581329	11
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99		0.842	+/-0.508	0.410	+/-0.508	0.838	pCi/g		KXR1	10/18/06	1041	578383	13
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/11/06	2209	576543
GL-RAD-A-026	Laboratory sample composite				576540

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C1 Project: YANK01204
Sample ID: 173317009 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	80	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	68	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,A	65	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	65	(25%-125%)
Strontium-90	GFPC, Sr90, solid – 0.025 pCi/g	76	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	76	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	35	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	77	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	77	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	69	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	69	(15%-125%)

Notes:
The Qualifiers in this report are defined as follows :

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- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 24, 2006

Client Sample ID:	9801-00-SFB-01-C2	Project:	YANK01204
Sample ID:	173317010	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	4.94%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00595	+/-0.0142	0.00	+/-0.0143	0.0197	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium-242	U	0.0157	+/-0.0218	0.00	+/-0.0219	0.0213	pCi/g						
Curium-243/244	U	0.00	+/-0.0143	0.00	+/-0.0143	0.0197	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00352	+/-0.00488	0.00931	+/-0.0049	0.0385	pCi/g	1	MXA1	10/15/06	0837	578394	2
Plutonium-239/240	U	0.00235	+/-0.0223	0.0174	+/-0.0223	0.0547	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.509	+/-1.97	1.63	+/-1.97	3.40	pCi/g	1	MXA1	10/17/06	1243	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.430	+/-0.144	0.0514	+/-0.144	0.114	pCi/g		MJH1	10/16/06	1903	578796	4
Americium-241	U	-0.0037	+/-0.0232	0.0217	+/-0.0232	0.0449	pCi/g						
Bismuth-212		0.420	+/-0.255	0.138	+/-0.255	0.298	pCi/g						
Bismuth-214		0.478	+/-0.100	0.0307	+/-0.100	0.0658	pCi/g						
Cesium-134	U	0.0437	+/-0.022	0.0222	+/-0.022	0.0476	pCi/g						
Cesium-137	U	-0.00824	+/-0.0191	0.0157	+/-0.0191	0.034	pCi/g						
Cobalt-60	U	0.0152	+/-0.0218	0.0166	+/-0.0218	0.0373	pCi/g						
Europium-152	U	0.00955	+/-0.0465	0.0426	+/-0.0465	0.090	pCi/g						
Europium-154	U	0.0456	+/-0.0632	0.0586	+/-0.0632	0.128	pCi/g						
Europium-155	U	0.046	+/-0.0414	0.0397	+/-0.0414	0.0824	pCi/g						
Lead-212		0.402	+/-0.0472	0.0241	+/-0.0472	0.0505	pCi/g						
Lead-214		0.519	+/-0.0813	0.026	+/-0.0813	0.0555	pCi/g						
Manganese-54	U	0.00734	+/-0.0186	0.0164	+/-0.0186	0.0356	pCi/g						
Niobium-94	U	0.0242	+/-0.0189	0.0179	+/-0.0189	0.0382	pCi/g						
Potassium-40		7.14	+/-0.781	0.136	+/-0.781	0.313	pCi/g						
Radium-226		0.478	+/-0.100	0.0307	+/-0.100	0.0658	pCi/g						
Silver-108m	U	0.00365	+/-0.0153	0.0123	+/-0.0153	0.0266	pCi/g						
Thallium-208		0.138	+/-0.0443	0.0162	+/-0.0443	0.0347	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0326	+/-0.00891	0.00503	+/-0.00894	0.0111	pCi/g		TC1	10/19/06	1514	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801–00–SFB–01–C2 — Project: YANK01204
Sample ID: 173317010 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium		76.6	+/–4.74	1.28	+/–4.92	2.77	pCi/g		DFA1	10/17/06	1436	576997	8
Liquid Scint C14, Solid–HTD2,ALL2 (CT)													
Carbon–14	U	–0.334	+/–0.347	0.297	+/–0.347	0.607	pCi/g		AXD2	10/12/06	2154	577741	10
Liquid Scint Fe55, Solid–HTD2,ALL2 (CT)													
Iron–55	U	1.69	+/–1.94	1.34	+/–1.94	2.73	pCi/g		MXP1	10/20/06	2159	576991	11
Liquid Scint Ni63, Solid–HTD2,ALL2 (CT)													
Nickel–63	U	1.56	+/–2.70	2.18	+/–2.70	4.64	pCi/g		MXP1	10/23/06	2133	581329	12
Liquid Scint Tc99, Solid–HTD2,ALL2 (CT)													
Technetium–99	U	0.151	+/–0.516	0.431	+/–0.516	0.879	pCi/g		KXR1	10/18/06	1113	578383	14
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	AXP2	10/11/06	2209	576543
GL–RAD–A–026	Laboratory sample composite				576540

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Pu–11–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE EML HASL–300, Tc–02–RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C2 — Project: YANK01204
Sample ID: 173317010 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	DOE EML HASL-300, Tc-02-RC Modified												
16	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	77	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	78	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	74	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	74	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	56	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	77	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	77	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	66	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	66	(15%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 24, 2006

Client Sample ID:	9801-00-SFB-01-C3	Project:	YANK01204
Sample ID:	173317011	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	6.33%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00886	+/-0.0125	0.00769	+/-0.0125	0.0318	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00655	+/-0.0128	0.00	+/-0.0129	0.0178	pCi/g						
Curium-243/244	U	0.000243	+/-0.0132	0.0109	+/-0.0132	0.0382	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00635	+/-0.00718	0.0137	+/-0.00722	0.0513	pCi/g	1	MXA	10/15/06	0837	578394	2
Plutonium-239/240	U	-0.0289	+/-0.0312	0.0371	+/-0.0314	0.0981	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.712	+/-1.90	1.57	+/-1.90	3.27	pCi/g	1	MXA	10/17/06	1305	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.506	+/-0.120	0.044	+/-0.120	0.0978	pCi/g		MJH1	10/17/06	0651	578796	4
Americium-241	U	-0.00966	+/-0.109	0.0778	+/-0.109	0.162	pCi/g						
Bismuth-212		0.279	+/-0.225	0.102	+/-0.225	0.223	pCi/g						
Bismuth-214		0.428	+/-0.0703	0.0259	+/-0.0703	0.0559	pCi/g						
Cesium-134	UI	0.00	+/-0.0264	0.0158	+/-0.0264	0.0345	pCi/g						
Cesium-137	U	0.025	+/-0.0334	0.0152	+/-0.0334	0.0327	pCi/g						
Cobalt-60	U	-0.0207	+/-0.0226	0.0131	+/-0.0226	0.0301	pCi/g						
Europium-152	U	0.056	+/-0.0462	0.0432	+/-0.0462	0.091	pCi/g						
Europium-154	U	-0.0442	+/-0.0527	0.0394	+/-0.0527	0.0892	pCi/g						
Europium-155	U	0.0328	+/-0.0477	0.0465	+/-0.0477	0.0965	pCi/g						
Lead-212		0.376	+/-0.0618	0.0313	+/-0.0618	0.0647	pCi/g						
Lead-214		0.455	+/-0.0718	0.0262	+/-0.0718	0.0558	pCi/g						
Manganese-54	U	0.00454	+/-0.0172	0.015	+/-0.0172	0.0325	pCi/g						
Niobium-94	U	0.00251	+/-0.016	0.014	+/-0.016	0.0301	pCi/g						
Potassium-40		7.94	+/-0.694	0.107	+/-0.694	0.253	pCi/g						
Radium-226		0.428	+/-0.0703	0.0259	+/-0.0703	0.0559	pCi/g						
Silver-108m	U	-0.00673	+/-0.0135	0.0116	+/-0.0135	0.0251	pCi/g						
Thallium-208		0.127	+/-0.0354	0.015	+/-0.0354	0.0323	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	-0.000491	+/-0.00763	0.00644	+/-0.00763	0.0138	pCi/g		TC1	10/19/06	1513	577001	5

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801–00–SFB–01–C3 — Project: YANK01204
Sample ID: 173317011 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium		50.9	+/–4.01	1.31	+/–4.10	2.82	pCi/g		DFA1	10/17/06	1452	576997	8
Liquid Scint C14, Solid–HTD2,ALL2 (CT)													
Carbon–14	U	–0.372	+/–0.387	0.331	+/–0.387	0.676	pCi/g		AXD2	10/12/06	2241	577741	10
Liquid Scint Fe55, Solid–HTD2,ALL2 (CT)													
Iron–55	U	–4.67	+/–2.04	1.57	+/–2.04	3.19	pCi/g		MXP1	10/20/06	1548	576991	11
Liquid Scint Ni63, Solid–HTD2,ALL2 (CT)													
Nickel–63	U	0.176	+/–2.39	2.00	+/–2.39	4.25	pCi/g		MXP1	10/23/06	2149	581329	12
Liquid Scint Tc99, Solid–HTD2,ALL2 (CT)													
Technetium–99	U	–0.258	+/–0.474	0.403	+/–0.474	0.823	pCi/g		KXR1	10/18/06	1144	578383	14
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	AXP2	10/11/06	2209	576543
GL–RAD–A–026	Laboratory sample composite				576540

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Pu–11–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE EML HASL–300, Tc–02–RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C3 — Project: YANK01204
Sample ID: 173317011 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	DOE EML HASL-300, Tc-02-RC Modified												
16	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	91	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	63	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	78	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	78	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	45	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	82	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	72	(15%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9801-00-SFB-01-C4	Project:	YANK01204
Sample ID:	173317012	Client ID:	YANK001
Matrix:	CT	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	5.55%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00108	+/-0.0116	0.00828	+/-0.0116	0.0416	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium-242	U	0.00	+/-0.0195	0.00	+/-0.0195	0.027	pCi/g						
Curium-243/244	U	-0.0111	+/-0.00972	0.0185	+/-0.00982	0.0621	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00384	+/-0.00532	0.0101	+/-0.00533	0.042	pCi/g	1	MXA1	10/15/06	0837	578394	2
Plutonium-239/240	U	-0.00384	+/-0.00532	0.0101	+/-0.00533	0.0419	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.464	+/-1.97	1.64	+/-1.97	3.41	pCi/g	1	MXA1	10/17/06	1411	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.568	+/-0.155	0.0566	+/-0.155	0.125	pCi/g		MJH1	10/17/06	0652	578796	4
Americium-241	U	0.000837	+/-0.0254	0.0233	+/-0.0254	0.0484	pCi/g						
Bismuth-212	U	0.124	+/-0.200	0.177	+/-0.200	0.378	pCi/g						
Bismuth-214		0.420	+/-0.0862	0.0412	+/-0.0862	0.0873	pCi/g						
Cesium-134	U	0.0299	+/-0.0225	0.0216	+/-0.0225	0.0466	pCi/g						
Cesium-137	U	0.0159	+/-0.0321	0.0171	+/-0.0321	0.0371	pCi/g						
Cobalt-60	U	0.0144	+/-0.0239	0.0198	+/-0.0239	0.0441	pCi/g						
Europium-152	U	-0.0276	+/-0.0481	0.0412	+/-0.0481	0.0877	pCi/g						
Europium-154	U	-0.0385	+/-0.0654	0.0511	+/-0.0654	0.115	pCi/g						
Europium-155	UI	0.00	+/-0.0608	0.0368	+/-0.0608	0.0768	pCi/g						
Lead-212		0.490	+/-0.0532	0.0241	+/-0.0532	0.0506	pCi/g						
Lead-214		0.450	+/-0.0872	0.030	+/-0.0872	0.0637	pCi/g						
Manganese-54	U	-0.00989	+/-0.0224	0.0177	+/-0.0224	0.0386	pCi/g						
Niobium-94	U	0.00898	+/-0.0197	0.0174	+/-0.0197	0.0375	pCi/g						
Potassium-40		8.36	+/-0.821	0.179	+/-0.821	0.404	pCi/g						
Radium-226		0.420	+/-0.0862	0.0412	+/-0.0862	0.0873	pCi/g						
Silver-108m	U	-0.0175	+/-0.0169	0.0135	+/-0.0169	0.0291	pCi/g						
Thallium-208		0.129	+/-0.0417	0.0189	+/-0.0417	0.0405	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.369	+/-0.0484	0.0114	+/-0.0496	0.0273	pCi/g		TC1	10/17/06	1452	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C4 — Project: YANK01204
Sample ID: 173317012 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid - 3 pCi/g													
Tritium	U	-0.132	+/-1.50	1.27	+/-1.50	2.74	pCi/g		DFA1	10/17/06	1508	576997	7
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.529	+/-0.387	0.335	+/-0.387	0.683	pCi/g		AXD2	10/12/06	2329	577741	8
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	1.08	+/-1.93	1.34	+/-1.93	2.73	pCi/g		MXP1	10/20/06	2322	576991	9
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	-0.26	+/-2.45	2.07	+/-2.45	4.40	pCi/g		MXP1	10/23/06	2206	581329	10
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.0907	+/-0.518	0.433	+/-0.518	0.885	pCi/g		KXR1	10/18/06	1216	578383	12
Solid Preparation													
Laboratory Composite - CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/11/06	2209	576543
GL-RAD-A-026	Laboratory sample composite				576540

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified
14	GL-RAD-A-026

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9801-00-SFB-01-C4 Project: YANK01204
Sample ID: 173317012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	63	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	68	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	74	(25%-125%)
Strontium-90	GFPC, Sr90, solid – 0.025 pCi/g	80	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	80	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	59	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	79	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	79	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	67	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	67	(15%-125%)

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312–0002–SFB–02–C1	Project:	YANK01204
Sample ID:	173317013	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28–SEP–06		
Receive Date:	05–OCT–06		
Collector:	Client		
Moisture:	.213%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid–TRU2,ALL2 (CT)													
Americium–241	U	–0.00295	+/–0.0118	0.00724	+/–0.0118	0.030	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium–242	U	0.0123	+/–0.0171	0.00	+/–0.0172	0.0167	pCi/g						
Curium–243/244	U	0.00572	+/–0.0112	0.00	+/–0.0112	0.0155	pCi/g						
Alphaspec Pu, Solid–TRU2,ALL2 (CT)													
Plutonium–238	U	–0.00403	+/–0.00558	0.0107	+/–0.0056	0.044	pCi/g	1	MXA1	10/15/06	0837	578394	2
Plutonium–239/240	U	0.00436	+/–0.0174	0.0106	+/–0.0174	0.044	pCi/g						
Liquid Scint Pu241, Solid–TRU2,ALL2 (CT)													
Plutonium–241	U	–0.591	+/–1.63	1.39	+/–1.63	2.90	pCi/g	1	MXA1	10/17/06	1433	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium–228		0.203	+/–0.0871	0.0336	+/–0.0871	0.0749	pCi/g		MJH1	10/12/06	1700	576804	4
Americium–241	U	–0.089	+/–0.0427	0.036	+/–0.0427	0.0748	pCi/g						
Bismuth–212	U	0.142	+/–0.152	0.0851	+/–0.152	0.185	pCi/g						
Bismuth–214		0.233	+/–0.0527	0.0224	+/–0.0527	0.048	pCi/g						
Cesium–134	U	0.0109	+/–0.0144	0.0134	+/–0.0144	0.0289	pCi/g						
Cesium–137	U	–0.00107	+/–0.0127	0.011	+/–0.0127	0.0238	pCi/g						
Cobalt–60	U	–0.00148	+/–0.0121	0.0102	+/–0.0121	0.0233	pCi/g						
Europium–152	U	0.0188	+/–0.0378	0.0354	+/–0.0378	0.0745	pCi/g						
Europium–154	U	–0.000256	+/–0.0357	0.0308	+/–0.0357	0.0696	pCi/g						
Europium–155	U	0.00522	+/–0.0363	0.0337	+/–0.0363	0.0699	pCi/g						
Lead–212		0.365	+/–0.0477	0.0177	+/–0.0477	0.0371	pCi/g						
Lead–214		0.201	+/–0.0525	0.0261	+/–0.0525	0.0549	pCi/g						
Manganese–54	U	0.00571	+/–0.0134	0.012	+/–0.0134	0.026	pCi/g						
Niobium–94	U	–0.00616	+/–0.0128	0.0106	+/–0.0128	0.0228	pCi/g						
Potassium–40		1.76	+/–0.339	0.0932	+/–0.339	0.216	pCi/g						
Radium–226		0.233	+/–0.0527	0.0224	+/–0.0527	0.048	pCi/g						
Silver–108m	U	0.00434	+/–0.0125	0.0115	+/–0.0125	0.0244	pCi/g						
Thallium–208		0.0522	+/–0.0186	0.0119	+/–0.0186	0.0255	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	–0.000946	+/–0.0062	0.00528	+/–0.0062	0.0116	pCi/g		TC1	10/19/06	1513	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C1 — Project: YANK01204
Sample ID: 173317013 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid - 3 pCi/g													
Tritium	U	-0.665	+/-1.44	1.26	+/-1.44	2.72	pCi/g		DFA1	10/17/06	1525	576997	8
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.283	+/-0.389	0.332	+/-0.389	0.677	pCi/g		AXD2	10/10/06	2338	576970	10
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	1.12	+/-1.69	1.12	+/-1.69	2.30	pCi/g		MXP1	10/19/06	2333	576991	11
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	1.14	+/-2.77	2.26	+/-2.77	4.81	pCi/g		MXP1	10/23/06	2222	581329	12
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.326	+/-0.583	0.481	+/-0.583	0.990	pCi/g		KXR1	10/17/06	0106	576978	14
Solid Preparation													
Laboratory Composite - CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE RESL Ni-1, Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C1 Project: YANK01204
Sample ID: 173317013 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	Mtd
15	GL-RAD-A-026										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	97	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	72	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	85	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	85	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	77	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	73	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	70	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	70	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-02-C2	Project:	YANK01204
Sample ID:	173317014	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.193%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.0107	+/-0.014	0.0103	+/-0.014	0.0385	pCi/g	1	MXA	10/16/06	0853	578392	1
Curium-242	U	0.00715	+/-0.014	0.00	+/-0.014	0.0194	pCi/g						
Curium-243/244	U	0.00	+/-0.013	0.00	+/-0.013	0.0179	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	-0.00189	+/-0.0037	0.00705	+/-0.0037	0.0354	pCi/g	1	MXA	10/15/06	0837	578394	2
Plutonium-239/240	U	-0.00157	+/-0.0175	0.0158	+/-0.0175	0.0528	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	-0.125	+/-1.75	1.47	+/-1.75	3.07	pCi/g	1	MXA	10/17/06	1455	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228	UI	0.00	+/-0.0803	0.0721	+/-0.0803	0.153	pCi/g		MJH1	10/12/06	1701	576804	4
Americium-241	U	-0.0469	+/-0.0556	0.0511	+/-0.0556	0.107	pCi/g						
Bismuth-212	U	0.119	+/-0.0957	0.103	+/-0.0957	0.224	pCi/g						
Bismuth-214		0.193	+/-0.0579	0.0242	+/-0.0579	0.0521	pCi/g						
Cesium-134	U	0.0169	+/-0.0169	0.0161	+/-0.0169	0.0347	pCi/g						
Cesium-137	U	-0.00116	+/-0.0144	0.0126	+/-0.0144	0.0274	pCi/g						
Cobalt-60	U	-0.00401	+/-0.0146	0.0115	+/-0.0146	0.0265	pCi/g						
Europium-152	U	-0.0045	+/-0.0453	0.0341	+/-0.0453	0.0724	pCi/g						
Europium-154	U	0.00443	+/-0.0405	0.0344	+/-0.0405	0.078	pCi/g						
Europium-155	U	0.00738	+/-0.0396	0.0372	+/-0.0396	0.0777	pCi/g						
Lead-212		0.124	+/-0.0336	0.0199	+/-0.0336	0.0417	pCi/g						
Lead-214		0.223	+/-0.0498	0.0258	+/-0.0498	0.0547	pCi/g						
Manganese-54	U	-0.00306	+/-0.0143	0.0121	+/-0.0143	0.0265	pCi/g						
Niobium-94	U	-0.00538	+/-0.0133	0.0112	+/-0.0133	0.0243	pCi/g						
Potassium-40		2.05	+/-0.447	0.114	+/-0.447	0.261	pCi/g						
Radium-226		0.193	+/-0.0579	0.0242	+/-0.0579	0.0521	pCi/g						
Silver-108m	U	-0.000537	+/-0.0141	0.0121	+/-0.0141	0.0258	pCi/g						
Thallium-208		0.0339	+/-0.0233	0.0128	+/-0.0233	0.0276	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00833	+/-0.00667	0.00487	+/-0.00667	0.0108	pCi/g		TC1	10/19/06	1513	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312–0002–SFB–02–C2 — Project: YANK01204
Sample ID: 173317014 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–0.939	+/–1.42	1.26	+/–1.42	2.73	pCi/g		DFA1	10/17/06	1541	576997	8
Liquid Scint C14, Solid–HTD2,ALL2 (CT)													
Carbon–14	U	–0.264	+/–0.356	0.304	+/–0.356	0.619	pCi/g		AXD2	10/11/06	0027	576970	10
Liquid Scint Fe55, Solid–HTD2,ALL2 (CT)													
Iron–55	U	–0.593	+/–1.50	1.02	+/–1.50	2.10	pCi/g		MXP1	10/20/06	0020	576991	11
Liquid Scint Ni63, Solid–HTD2,ALL2 (CT)													
Nickel–63	U	–1.22	+/–2.85	2.42	+/–2.85	4.95	pCi/g		MXP1	10/23/06	1448	581329	12
Liquid Scint Tc99, Solid–HTD2,ALL2 (CT)													
Technetium–99	U	0.125	+/–0.578	0.482	+/–0.578	0.993	pCi/g		KXR1	10/17/06	0123	576978	14
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	AXP2	10/05/06	1948	576161
GL–RAD–A–026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Pu–11–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE EML HASL–300, Tc–02–RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C2 Project: YANK01204
Sample ID: 173317014 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
15	GL-RAD-A-026											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	86	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	71	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	80	(25%-125%)
Strontium-90	GFPC, Sr90, solid ~ 0.025 pCi/g	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ~ 0.025 pCi/g	77	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	72	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	44	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	44	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-02-C3	Project:	YANK01204
Sample ID:	173317015	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.158%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	0.00591	+/-0.0143	0.00605	+/-0.0143	0.0304	pCi/g	1	MXA1	10/16/06	0853	578392	1
Curium-242		0.0219	+/-0.0248	0.00	+/-0.0249	0.0198	pCi/g						
Curium-243/244	U	-0.00162	+/-0.0136	0.00606	+/-0.0136	0.0304	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.00	+/-0.0145	0.00	+/-0.0145	0.020	pCi/g	1	MXA1	10/15/06	0837	578394	2
Plutonium-239/240	U	-0.00325	+/-0.0168	0.0162	+/-0.0168	0.0525	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.463	+/-1.97	1.64	+/-1.97	3.41	pCi/g	1	MXA1	10/17/06	1957	578398	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228	UI	0.00	+/-0.131	0.085	+/-0.131	0.180	pCi/g		MJH1	10/12/06	1701	576804	4
Americium-241	U	-0.00321	+/-0.0233	0.021	+/-0.0233	0.0437	pCi/g						
Bismuth-212	U	0.0282	+/-0.175	0.152	+/-0.175	0.324	pCi/g						
Bismuth-214	UI	0.00	+/-0.0699	0.0499	+/-0.0699	0.104	pCi/g						
Cesium-134	U	0.0253	+/-0.0238	0.0221	+/-0.0238	0.0471	pCi/g						
Cesium-137	U	0.00366	+/-0.0219	0.0192	+/-0.0219	0.0409	pCi/g						
Cobalt-60	U	0.00779	+/-0.0226	0.0199	+/-0.0226	0.0435	pCi/g						
Europium-152	U	-0.0119	+/-0.0509	0.0432	+/-0.0509	0.0911	pCi/g						
Europium-154	U	0.0145	+/-0.0688	0.0523	+/-0.0688	0.115	pCi/g						
Europium-155	U	0.0204	+/-0.0426	0.038	+/-0.0426	0.079	pCi/g						
Lead-212		0.0732	+/-0.0442	0.0268	+/-0.0442	0.0557	pCi/g						
Lead-214		0.116	+/-0.063	0.0326	+/-0.063	0.0686	pCi/g						
Manganese-54	U	0.00834	+/-0.0225	0.0196	+/-0.0225	0.0418	pCi/g						
Niobium-94	U	0.00642	+/-0.0191	0.0169	+/-0.0191	0.0359	pCi/g						
Potassium-40		2.04	+/-0.623	0.166	+/-0.623	0.370	pCi/g						
Radium-226		0.139	+/-0.0699	0.0312	+/-0.0699	0.0666	pCi/g						
Silver-108m	U	0.0224	+/-0.0296	0.0169	+/-0.0296	0.0356	pCi/g						
Thallium-208	U	0.0177	+/-0.0319	0.0167	+/-0.0319	0.0358	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.00443	+/-0.00666	0.00531	+/-0.00667	0.0114	pCi/g		TC1	10/19/06	1513	577001	5
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C3 Project: YANK01204
Sample ID: 173317015 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	0.340	+/-1.52	1.25	+/-1.52	2.70	pCi/g		DFA1	10/17/06	1557	576997	8
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.339	+/-0.424	0.362	+/-0.424	0.739	pCi/g		AXD2	10/11/06	0115	576970	10
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.0635	+/-1.61	1.09	+/-1.61	2.24	pCi/g		MXP1	10/20/06	0107	576991	11
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	0.752	+/-2.43	1.99	+/-2.43	4.24	pCi/g		MXP1	10/23/06	2238	581329	12
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	0.272	+/-0.568	0.469	+/-0.568	0.966	pCi/g		KXR1	10/17/06	0139	576978	14
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C-01 Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE RESL Ni-1, Modified
14	DOE EML HASL-300, Tc-02-RC Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C3 Project: YANK01204
Sample ID: 173317015 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	Mtd
15	GL-RAD-A-026										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	92	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	75	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,/	79	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,/	79	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	81	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	81	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	70	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	85	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	85	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	85	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9312-0002-SFB-02-C4	Project:	YANK01204
Sample ID:	173317016	Client ID:	YANK001
Matrix:	Bedrock	Vol. Recv.:	
Collect Date:	28-SEP-06		
Receive Date:	05-OCT-06		
Collector:	Client		
Moisture:	.168%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid-TRU2,ALL2 (CT)													
Americium-241	U	-0.00595	+/-0.045	0.00	+/-0.0452	0.0623	pCi/g	1	MXA	10/17/06	1154	578392	1
Curium-242	U	0.025	+/-0.0489	0.00	+/-0.0491	0.0676	pCi/g						
Curium-243/244	U	0.00	+/-0.0451	0.00	+/-0.0451	0.0623	pCi/g						
Alphaspec Pu, Solid-TRU2,ALL2 (CT)													
Plutonium-238	U	0.0193	+/-0.0377	0.00	+/-0.0379	0.0522	pCi/g	1	MXA	10/17/06	1154	578394	3
Plutonium-239/240	U	0.0192	+/-0.0377	0.00	+/-0.0378	0.0522	pCi/g						
Liquid Scint Pu241, Solid-TRU2,ALL2 (CT)													
Plutonium-241	U	0.427	+/-1.81	1.51	+/-1.81	3.14	pCi/g	1	MXA	10/17/06	1537	578398	5
Rad Gamma Spec Analysis													
Gammaspec, Gamma, GAM2,ALL2 (CT ingrowth waived)													
Actinium-228		0.135	+/-0.0677	0.0336	+/-0.0677	0.0758	pCi/g		MJH1	10/12/06	1701	576804	6
Americium-241	U	0.0155	+/-0.0135	0.0133	+/-0.0135	0.0278	pCi/g						
Bismuth-212	U	0.096	+/-0.117	0.109	+/-0.117	0.234	pCi/g						
Bismuth-214		0.119	+/-0.0492	0.0243	+/-0.0492	0.0522	pCi/g						
Cesium-134	U	0.0223	+/-0.0226	0.014	+/-0.0226	0.0304	pCi/g						
Cesium-137	U	0.000559	+/-0.0139	0.0121	+/-0.0139	0.0262	pCi/g						
Cobalt-60	U	-0.00699	+/-0.0138	0.0106	+/-0.0138	0.0245	pCi/g						
Europium-152	U	0.00569	+/-0.0339	0.0298	+/-0.0339	0.0633	pCi/g						
Europium-154	U	0.00707	+/-0.0343	0.0303	+/-0.0343	0.0694	pCi/g						
Europium-155	U	-0.0169	+/-0.023	0.0213	+/-0.023	0.0449	pCi/g						
Lead-212		0.111	+/-0.0279	0.0148	+/-0.0279	0.0314	pCi/g						
Lead-214		0.172	+/-0.0404	0.0198	+/-0.0404	0.0423	pCi/g						
Manganese-54	U	-0.00876	+/-0.0145	0.0114	+/-0.0145	0.025	pCi/g						
Niobium-94	U	-0.00638	+/-0.0119	0.00966	+/-0.0119	0.0212	pCi/g						
Potassium-40		2.26	+/-0.394	0.115	+/-0.394	0.262	pCi/g						
Radium-226		0.119	+/-0.0492	0.0243	+/-0.0492	0.0522	pCi/g						
Silver-108m	U	0.00783	+/-0.0105	0.0102	+/-0.0105	0.0218	pCi/g						
Thallium-208	U	0.0163	+/-0.0333	0.0119	+/-0.0333	0.0257	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0306	+/-0.0181	0.0103	+/-0.0181	0.0252	pCi/g		TC1	10/17/06	1452	577001	7
Rad Liquid Scintillation Analysis													

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C4 — Project: YANK01204
Sample ID: 173317016 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	1.26	+/-1.14	0.887	+/-1.14	1.88	pCi/g		DFA1	10/18/06	2235	576997	8
Liquid Scint C14, Solid-HTD2,ALL2 (CT)													
Carbon-14	U	-0.106	+/-0.426	0.359	+/-0.426	0.733	pCi/g		AXD2	10/11/06	0241	576970	11
Liquid Scint Fe55, Solid-HTD2,ALL2 (CT)													
Iron-55	U	-0.351	+/-1.62	1.09	+/-1.62	2.25	pCi/g		MXP1	10/20/06	0153	576991	12
Liquid Scint Ni63, Solid-HTD2,ALL2 (CT)													
Nickel-63	U	1.22	+/-2.31	1.92	+/-2.32	3.92	pCi/g		MXP1	10/23/06	1550	581329	13
Liquid Scint Tc99, Solid-HTD2,ALL2 (CT)													
Technetium-99	U	-0.00853	+/-0.568	0.477	+/-0.568	0.982	pCi/g		KXR1	10/17/06	0156	576978	15
Solid Preparation													
Laboratory Composite – CONCRETE													

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	10/05/06	1948	576161
GL-RAD-A-026	Laboratory sample composite				576157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	EML HASL 300, 4.5.2.3
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA 906.0 Modified
10	EPA 906.0 Modified
11	EPA EERF C-01 Modified
12	DOE RESL Fe-1, Modified
13	DOE RESL Ni-1, Modified
14	DOE RESL Ni-1, Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C4 Project: YANK01204
Sample ID: 173317016 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
15	DOE EML HASL-300, Tc-02-RC Modified												
16	GL-RAD-A-026												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid-TRI	24	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-TRU2,ALL2	25	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-TRU2,A	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-TRU2,A	80	(25%-125%)
Strontium-90	GFPC, Sr90, solid - 0.025 pCi/g	81	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid - 0.025 pCi/g	81	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-HTD2,Al	70	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-HTD2,Al	59	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-HTD2,Al	59	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-HTD2,A	83	

Notes:
The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: October 24, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9312-0002-SFB-02-C4 Project: YANK01204
Sample ID: 173317016 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: October 24, 2006

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut
Contact: Mr. Jack McCarthy

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 578392										
QC1201205232 173770001 DUP										
Americium-241		0.0478		0.109	pCi/g	78		(0% - 100%)	MXA1	10/16/06 08:53
	Uncert:	+/-0.0378		+/-0.0598						
	TPU:	+/-0.0383		+/-0.0612						
Curium-242	U	0.00985	U	0.0221	pCi/g	77		(0% - 100%)		
	Uncert:	+/-0.0193		+/-0.0338						
	TPU:	+/-0.0193		+/-0.0339						
Curium-243/244	U	0.0199	U	0.0263	pCi/g	28		(0% - 100%)		
	Uncert:	+/-0.0247		+/-0.0445						
	TPU:	+/-0.0248		+/-0.0446						
QC1201205234 LCS										
Americium-241	2.69			2.88	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.328						
	TPU:			+/-0.502						
Curium-242			U	0.0195	pCi/g					
	Uncert:			+/-0.027						
	TPU:			+/-0.0271						
Curium-243/244	3.24			3.01	pCi/g		93	(75%-125%)		
	Uncert:			+/-0.335						
	TPU:			+/-0.519						
QC1201205231 MB										
Americium-241			U	-0.017	pCi/g					
	Uncert:			+/-0.0116						
	TPU:			+/-0.0118						
Curium-242			U	0.0121	pCi/g					
	Uncert:			+/-0.0193						
	TPU:			+/-0.0194						
Curium-243/244			U	0.0488	pCi/g					
	Uncert:			+/-0.0482						
	TPU:			+/-0.0485						
QC1201205233 173770001 MS										
Americium-241	2.72	0.0478		2.74	pCi/g		99	(75%-125%)		
	Uncert:	+/-0.0378		+/-0.258						
	TPU:	+/-0.0383		+/-0.409						
Curium-242	U	0.00985	U	0.0286	pCi/g					
	Uncert:	+/-0.0193		+/-0.0393						
	TPU:	+/-0.0193		+/-0.0394						
Curium-243/244	3.30 U	0.0199		2.75	pCi/g		83	(75%-125%)		
	Uncert:	+/-0.0247		+/-0.260						
	TPU:	+/-0.0248		+/-0.411						
Batch 578394										
QC1201205236 173770001 DUP										
Plutonium-238		0.0551	U	0.00929	pCi/g	142		(0% - 100%)	MXA1	10/15/06 08:37

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 578394										
	Uncert:	+/-0.0409		+/-0.021						
	TPU:	+/-0.0413		+/-0.021						
Plutonium-239/240	U	0.0257	U	0.0328	pCi/g	24		(0% - 100%)		
	Uncert:	+/-0.0291		+/-0.0321						
	TPU:	+/-0.0292		+/-0.0323						
QC1201205238 LCS										
Plutonium-238			U	0.00764	pCi/g			(75%-125%)		10/15/06 08:37
	Uncert:			+/-0.0215						
	TPU:			+/-0.0215						
Plutonium-239/240	2.49			2.81	pCi/g		113	(75%-125%)		
	Uncert:			+/-0.282						
	TPU:			+/-0.441						
QC1201205235 MB										
Plutonium-238			U	-0.00339	pCi/g					10/15/06 08:37
	Uncert:			+/-0.0146						
	TPU:			+/-0.0146						
Plutonium-239/240			U	-0.0031	pCi/g					
	Uncert:			+/-0.016						
	TPU:			+/-0.016						
QC1201205237 173770001 MS										
Plutonium-238		0.0551		0.0421	pCi/g			(75%-125%)		
	Uncert:	+/-0.0409		+/-0.0369						
	TPU:	+/-0.0413		+/-0.0372						
Plutonium-239/240	2.52 U	0.0257		2.54	pCi/g		101	(75%-125%)		
	Uncert:	+/-0.0291		+/-0.274						
	TPU:	+/-0.0292		+/-0.382						
Batch 578398										
QC1201205249 173770001 DUP										
Plutonium-241	U	0.274	U	0.507	pCi/g	0		(0% - 100%)	MXA1	10/17/06 16:42
	Uncert:	+/-1.93		+/-1.96						
	TPU:	+/-1.93		+/-1.96						
QC1201205251 LCS										
Plutonium-241	35.9			37.4	pCi/g		104	(75%-125%)		10/17/06 17:24
	Uncert:			+/-3.27						
	TPU:			+/-5.07						
QC1201205248 MB										
Plutonium-241			U	0.00	pCi/g					10/17/06 16:20
	Uncert:			+/-1.50						
	TPU:			+/-1.50						
QC1201205250 173770001 MS										
Plutonium-241	36.4 U	0.274		30.9	pCi/g		85	(75%-125%)		10/17/06 17:03
	Uncert:	+/-1.93		+/-2.68						
	TPU:	+/-1.93		+/-4.01						
Rad Gamma Spec										
Batch 576804										
QC1201201888 173432001 DUP										
Actinium-228		0.807		0.990	pCi/g	20		(0% - 100%)	MJH1	10/12/06 17:42
	Uncert:	+/-0.151		+/-0.252						
				+/-0.252						

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 576804											
	TPU:	+/-0.151									
Americium-241	U	0.0208	U	0.0313	pCi/g	40		(0% - 100%)			
	Uncert:	+/-0.116		+/-0.0519							
	TPU:	+/-0.116		+/-0.0519							
Bismuth-212		0.720		0.872	pCi/g	19		(0% - 100%)			
	Uncert:	+/-0.249		+/-0.536							
	TPU:	+/-0.249		+/-0.536							
Bismuth-214		0.554		0.781	pCi/g	34*		(0% - 100%)			
	Uncert:	+/-0.0875		+/-0.176							
	TPU:	+/-0.0875		+/-0.176							
Cesium-134	UI	0.00	U	0.0223	pCi/g	92		(0% - 100%)			
	Uncert:	+/-0.0361		+/-0.0481							
	TPU:	+/-0.0361		+/-0.0481							
Cesium-137		0.0461	U	0.0664	pCi/g	36		(0% - 100%)			
	Uncert:	+/-0.0279		+/-0.0774							
	TPU:	+/-0.0279		+/-0.0774							
Cobalt-60	U	-0.0122	U	0.0212	pCi/g	742		(0% - 100%)			
	Uncert:	+/-0.0193		+/-0.0343							
	TPU:	+/-0.0193		+/-0.0343							
Europium-152	U	-0.0204	U	-0.0365	pCi/g	57		(0% - 100%)			
	Uncert:	+/-0.0484		+/-0.0833							
	TPU:	+/-0.0484		+/-0.0833							
Europium-154	U	0.0428	U	0.062	pCi/g	37		(0% - 100%)			
	Uncert:	+/-0.0569		+/-0.109							
	TPU:	+/-0.0569		+/-0.109							
Europium-155	U	0.00564	U	0.0466	pCi/g	157		(0% - 100%)			
	Uncert:	+/-0.0696		+/-0.082							
	TPU:	+/-0.0696		+/-0.082							
Lead-212		0.798		0.788	pCi/g	1		(0% - 20%)			
	Uncert:	+/-0.0616		+/-0.0889							
	TPU:	+/-0.0616		+/-0.0889							
Lead-214		0.638		0.645	pCi/g	1		(0% - 20%)			
	Uncert:	+/-0.0749		+/-0.122							
	TPU:	+/-0.0749		+/-0.122							
Manganese-54	U	-0.0022	U	0.0124	pCi/g	286		(0% - 100%)			
	Uncert:	+/-0.0198		+/-0.040							
	TPU:	+/-0.0198		+/-0.040							
Niobium-94	U	0.0143	U	0.0259	pCi/g	58		(0% - 100%)			
	Uncert:	+/-0.0181		+/-0.035							
	TPU:	+/-0.0181		+/-0.035							
Potassium-40		13.8		12.2	pCi/g	13		(0% - 20%)			
	Uncert:	+/-0.824		+/-1.36							
	TPU:	+/-0.824		+/-1.36							
Radium-226		0.554		0.781	pCi/g	34		(0% - 100%)			
	Uncert:	+/-0.0875		+/-0.176							
	TPU:	+/-0.0875		+/-0.176							
Silver-108m	U	0.000225	U	0.0115	pCi/g	192		(0% - 100%)			
	Uncert:	+/-0.0161		+/-0.0281							

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 576804										
	TPU:	+/-0.0161		+/-0.0281						
Thallium-208		0.231		0.300	pCi/g	26		(0% - 100%)		
	Uncert:	+/-0.0401		+/-0.0703						
	TPU:	+/-0.0401		+/-0.0703						
QC1201201889 LCS										
Actinium-228			U	0.0685	pCi/g					10/12/06 19:15
	Uncert:			+/-0.531						
	TPU:			+/-0.531						
Americium-241	23.4			24.7	pCi/g		106	(75%-125%)		
	Uncert:			+/-2.62						
	TPU:			+/-2.62						
Bismuth-212			U	0.235	pCi/g					
	Uncert:			+/-0.989						
	TPU:			+/-0.989						
Bismuth-214			U	-0.0375	pCi/g					
	Uncert:			+/-0.233						
	TPU:			+/-0.233						
Cesium-134			U	-0.00479	pCi/g					
	Uncert:			+/-0.147						
	TPU:			+/-0.147						
Cesium-137	9.55			9.73	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.768						
	TPU:			+/-0.768						
Cobalt-60	14.3			15.1	pCi/g		106	(75%-125%)		
	Uncert:			+/-1.04						
	TPU:			+/-1.04						
Europium-152			U	-0.287	pCi/g					
	Uncert:			+/-0.311						
	TPU:			+/-0.311						
Europium-154			U	0.112	pCi/g					
	Uncert:			+/-0.276						
	TPU:			+/-0.276						
Europium-155			U	-0.0442	pCi/g					
	Uncert:			+/-0.328						
	TPU:			+/-0.328						
Lead-212			U	-0.125	pCi/g					
	Uncert:			+/-0.159						
	TPU:			+/-0.159						
Lead-214			U	-0.193	pCi/g					
	Uncert:			+/-0.224						
	TPU:			+/-0.224						
Manganese-54			U	0.0482	pCi/g					
	Uncert:			+/-0.133						
	TPU:			+/-0.133						
Niobium-94			U	0.0277	pCi/g					
	Uncert:			+/-0.116						
	TPU:			+/-0.116						
Potassium-40			U	0.581	pCi/g					

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 576804											
	Uncert:			+/-1.04							
	TPU:			+/-1.04							
Radium-226			U	-0.0375	pCi/g			(75%-125%)			
	Uncert:			+/-0.233							
	TPU:			+/-0.233							
Silver-108m			U	-0.0727	pCi/g						
	Uncert:			+/-0.114							
	TPU:			+/-0.114							
Thallium-208			U	-0.0423	pCi/g						
	Uncert:			+/-0.118							
	TPU:			+/-0.118							
QC1201201887 MB											
Actinium-228			U	-0.00601	pCi/g					10/13/06	12:27
	Uncert:			+/-0.0434							
	TPU:			+/-0.0434							
Americium-241			U	-0.0137	pCi/g						
	Uncert:			+/-0.0533							
	TPU:			+/-0.0533							
Bismuth-212			U	0.0252	pCi/g						
	Uncert:			+/-0.0887							
	TPU:			+/-0.0887							
Bismuth-214			U	0.0258	pCi/g						
	Uncert:			+/-0.0337							
	TPU:			+/-0.0337							
Cesium-134			U	0.000666	pCi/g						
	Uncert:			+/-0.0118							
	TPU:			+/-0.0118							
Cesium-137			U	-0.00269	pCi/g						
	Uncert:			+/-0.0111							
	TPU:			+/-0.0111							
Cobalt-60			U	-0.000359	pCi/g						
	Uncert:			+/-0.0142							
	TPU:			+/-0.0142							
Europium-152			U	-0.00823	pCi/g						
	Uncert:			+/-0.0289							
	TPU:			+/-0.0289							
Europium-154			U	0.0206	pCi/g						
	Uncert:			+/-0.0308							
	TPU:			+/-0.0308							
Europium-155			U	0.0121	pCi/g						
	Uncert:			+/-0.0283							
	TPU:			+/-0.0283							
Lead-212			U	0.000673	pCi/g						
	Uncert:			+/-0.0259							
	TPU:			+/-0.0259							
Lead-214			U	0.0286	pCi/g						
	Uncert:			+/-0.045							
	TPU:			+/-0.045							

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 576804										
Manganese-54			U	0.00755	pCi/g					
	Uncert:			+/-0.00957						
	TPU:			+/-0.00957						
Niobium-94			U	-0.000868	pCi/g					
	Uncert:			+/-0.0108						
	TPU:			+/-0.0108						
Potassium-40			U	0.150	pCi/g					
	Uncert:			+/-0.137						
	TPU:			+/-0.137						
Radium-226			U	0.0258	pCi/g					
	Uncert:			+/-0.0337						
	TPU:			+/-0.0337						
Silver-108m			U	0.00351	pCi/g					
	Uncert:			+/-0.0101						
	TPU:			+/-0.0101						
Thallium-208			U	0.00714	pCi/g					
	Uncert:			+/-0.0164						
	TPU:			+/-0.0164						
Batch 578796										
QC1201206226 173317009 DUP										
Actinium-228	UI	0.00		0.517	pCi/g	14		(0% - 100%)	MJH1	10/17/06 11:03
	Uncert:	+/-0.180		+/-0.160						
	TPU:	+/-0.180		+/-0.160						
Americium-241	U	0.0462	U	0.00541	pCi/g	158		(0% - 100%)		
	Uncert:	+/-0.0627		+/-0.0529						
	TPU:	+/-0.0627		+/-0.0529						
Bismuth-212	U	0.344	U	0.177	pCi/g	65		(0% - 100%)		
	Uncert:	+/-0.355		+/-0.317						
	TPU:	+/-0.355		+/-0.317						
Bismuth-214		0.361		0.399	pCi/g	10		(0% - 100%)		
	Uncert:	+/-0.150		+/-0.117						
	TPU:	+/-0.150		+/-0.117						
Cesium-134	U	0.0431	U	0.0142	pCi/g	101		(0% - 100%)		
	Uncert:	+/-0.0325		+/-0.028						
	TPU:	+/-0.0325		+/-0.028						
Cesium-137		20.2		19.9	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.343		+/-1.90						
	TPU:	+/-0.343		+/-1.90						
Cobalt-60	U	-0.0088	U	0.00728	pCi/g	2120		(0% - 100%)		
	Uncert:	+/-0.0319		+/-0.0279						
	TPU:	+/-0.0319		+/-0.0279						
Europium-152	U	0.0944	U	0.013	pCi/g	152		(0% - 100%)		
	Uncert:	+/-0.144		+/-0.159						
	TPU:	+/-0.144		+/-0.159						
Europium-154	U	0.0441	U	-0.0737	pCi/g	797		(0% - 100%)		
	Uncert:	+/-0.0938		+/-0.0902						
	TPU:	+/-0.0938		+/-0.0902						
Europium-155	U	0.099	U	0.0279	pCi/g	112		(0% - 100%)		

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 578796										
	Uncert:	+/-0.0899		+/-0.0956						
	TPU:	+/-0.0899		+/-0.0956						
Lead-212		0.341		0.282	pCi/g	19		(0% - 100%)		
	Uncert:	+/-0.116		+/-0.106						
	TPU:	+/-0.116		+/-0.106						
Lead-214		0.417		0.442	pCi/g	6		(0% - 100%)		
	Uncert:	+/-0.183		+/-0.169						
	TPU:	+/-0.183		+/-0.169						
Manganese-54	U	0.0085	U	0.0139	pCi/g	48		(0% - 100%)		
	Uncert:	+/-0.0316		+/-0.0228						
	TPU:	+/-0.0316		+/-0.0228						
Niobium-94	U	0.033	U	0.0184	pCi/g	57		(0% - 100%)		
	Uncert:	+/-0.0283		+/-0.0224						
	TPU:	+/-0.0283		+/-0.0224						
Potassium-40		6.73		7.33	pCi/g	8		(0% - 20%)		
	Uncert:	+/-0.880		+/-0.778						
	TPU:	+/-0.880		+/-0.778						
Radium-226		0.361		0.399	pCi/g	10		(0% - 100%)		
	Uncert:	+/-0.150		+/-0.117						
	TPU:	+/-0.150		+/-0.117						
Silver-108m	U	0.00172	U	0.0397	pCi/g	183		(0% - 100%)		
	Uncert:	+/-0.0559		+/-0.0588						
	TPU:	+/-0.0559		+/-0.0588						
Thallium-208		0.177		0.147	pCi/g	19		(0% - 100%)		
	Uncert:	+/-0.0611		+/-0.0636						
	TPU:	+/-0.0611		+/-0.0636						
QC1201206227 LCS										
Actinium-228			U	0.0708	pCi/g					10/17/06 11:24
	Uncert:			+/-0.402						
	TPU:			+/-0.402						
Americium-241	23.4			24.9	pCi/g		106	(75%-125%)		
	Uncert:			+/-1.12						
	TPU:			+/-1.12						
Bismuth-212			U	0.240	pCi/g					
	Uncert:			+/-0.672						
	TPU:			+/-0.672						
Bismuth-214			U	0.177	pCi/g					
	Uncert:			+/-0.169						
	TPU:			+/-0.169						
Cesium-134			U	0.0153	pCi/g					
	Uncert:			+/-0.0995						
	TPU:			+/-0.0995						
Cesium-137	9.55			10.1	pCi/g		106	(75%-125%)		
	Uncert:			+/-0.348						
	TPU:			+/-0.348						
Cobalt-60	14.3			14.9	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.526						
	TPU:			+/-0.526						

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 578796										
Europium-152			U	0.0855	pCi/g					
	Uncert:			+/-0.215						
	TPU:			+/-0.215						
Europium-154			U	-0.137	pCi/g					
	Uncert:			+/-0.258						
	TPU:			+/-0.258						
Europium-155			U	0.0593	pCi/g					
	Uncert:			+/-0.260						
	TPU:			+/-0.260						
Lead-212			U	0.00643	pCi/g					
	Uncert:			+/-0.127						
	TPU:			+/-0.127						
Lead-214			U	-0.0687	pCi/g					
	Uncert:			+/-0.160						
	TPU:			+/-0.160						
Manganese-54			U	-0.0135	pCi/g					
	Uncert:			+/-0.0943						
	TPU:			+/-0.0943						
Niobium-94			U	-0.0669	pCi/g					
	Uncert:			+/-0.0773						
	TPU:			+/-0.0773						
Potassium-40			U	0.442	pCi/g					
	Uncert:			+/-0.723						
	TPU:			+/-0.723						
Radium-226			U	0.177	pCi/g			(75%-125%)		
	Uncert:			+/-0.169						
	TPU:			+/-0.169						
Silver-108m			U	-0.00897	pCi/g					
	Uncert:			+/-0.0847						
	TPU:			+/-0.0847						
Thallium-208			U	0.0848	pCi/g					
	Uncert:			+/-0.0868						
	TPU:			+/-0.0868						
QC1201206225 MB										
Actinium-228			U	0.0131	pCi/g					10/17/06 10:49
	Uncert:			+/-0.0441						
	TPU:			+/-0.0441						
Americium-241			U	0.0301	pCi/g					
	Uncert:			+/-0.0466						
	TPU:			+/-0.0466						
Bismuth-212			U	-0.00621	pCi/g					
	Uncert:			+/-0.0845						
	TPU:			+/-0.0845						
Bismuth-214			U	0.0218	pCi/g					
	Uncert:			+/-0.0234						
	TPU:			+/-0.0234						
Cesium-134			U	0.00461	pCi/g					
	Uncert:			+/-0.0131						

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 578796										
	TPU:			+/-0.0131						
Cesium-137			U	-0.000794	pCi/g					
	Uncert:			+/-0.0118						
	TPU:			+/-0.0118						
Cobalt-60			U	0.00816	pCi/g					
	Uncert:			+/-0.0136						
	TPU:			+/-0.0136						
Europium-152			U	-0.0148	pCi/g					
	Uncert:			+/-0.0311						
	TPU:			+/-0.0311						
Europium-154			U	0.0146	pCi/g					
	Uncert:			+/-0.0289						
	TPU:			+/-0.0289						
Europium-155			U	-0.00645	pCi/g					
	Uncert:			+/-0.0326						
	TPU:			+/-0.0326						
Lead-212			U	0.0118	pCi/g					
	Uncert:			+/-0.022						
	TPU:			+/-0.022						
Lead-214			U	0.0189	pCi/g					
	Uncert:			+/-0.0234						
	TPU:			+/-0.0234						
Manganese-54			U	0.00918	pCi/g					
	Uncert:			+/-0.0117						
	TPU:			+/-0.0117						
Niobium-94			U	-0.00351	pCi/g					
	Uncert:			+/-0.0113						
	TPU:			+/-0.0113						
Potassium-40			U	0.209	pCi/g					
	Uncert:			+/-0.162						
	TPU:			+/-0.162						
Radium-226			U	0.0218	pCi/g					
	Uncert:			+/-0.0234						
	TPU:			+/-0.0234						
Silver-108m			U	-0.00747	pCi/g					
	Uncert:			+/-0.0115						
	TPU:			+/-0.0115						
Thallium-208			U	0.0116	pCi/g					
	Uncert:			+/-0.0126						
	TPU:			+/-0.0126						
Rad Gas Flow										
Batch 577001										
QC1201202400 173317009 DUP										
Strontium-90		0.121		0.0816	pCi/g	39*		(0% - 100%)	TC1	10/18/06 14:16
	Uncert:	+/-0.028		+/-0.0237						
	TPU:	+/-0.0282		+/-0.0237						
QC1201202402 LCS										
Strontium-90	6.51			6.97	pCi/g		107	(75%-125%)		10/18/06 14:17

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 577001										
	Uncert:			+/-0.191						
	TPU:			+/-0.249						
QC1201202399 MB										
Strontium-90			U	0.00307	pCi/g					10/19/06 15:13
	Uncert:			+/-0.00669						
	TPU:			+/-0.00669						
QC1201202401 173317009 MS										
Strontium-90	6.49	0.121		5.69	pCi/g		86	(75%-125%)		10/18/06 14:17
	Uncert:	+/-0.028		+/-0.172						
	TPU:	+/-0.0282		+/-0.222						
Rad Liquid Scintillation										
Batch 576970										
QC1201202301 173435001 DUP										
Carbon-14		-0.699	U	-0.60	pCi/g	0		(0% - 100%)	AXD2	10/11/06 06:38
	Uncert:	+/-0.398		+/-0.345						
	TPU:	+/-0.398		+/-0.345						
QC1201202303 LCS										
Carbon-14	17.5			19.3	pCi/g		110	(75%-125%)		10/11/06 08:14
	Uncert:			+/-0.641						
	TPU:			+/-0.709						
QC1201202300 MB										
Carbon-14			U	-0.438	pCi/g					10/11/06 05:49
	Uncert:			+/-0.340						
	TPU:			+/-0.340						
QC1201202302 173435001 MS										
Carbon-14	17.5	-0.699		19.8	pCi/g		113	(75%-125%)		10/11/06 07:26
	Uncert:	+/-0.398		+/-0.660						
	TPU:	+/-0.398		+/-0.729						
Batch 576978										
QC1201202324 173317001 DUP										
Technetium-99		0.977	U	0.371	pCi/g	0		(0% - 100%)	KXR1	10/17/06 22:59
	Uncert:	+/-0.660		+/-0.399						
	TPU:	+/-0.660		+/-0.400						
QC1201202326 LCS										
Technetium-99	28.9			27.5	pCi/g		95	(75%-125%)		10/17/06 03:01
	Uncert:			+/-1.12						
	TPU:			+/-1.32						
QC1201202323 MB										
Technetium-99			U	-0.0801	pCi/g					10/17/06 02:12
	Uncert:			+/-0.530						
	TPU:			+/-0.530						
QC1201202325 173317001 MS										
Technetium-99	28.9	0.977		26.8	pCi/g		93	(75%-125%)		10/17/06 02:45
	Uncert:	+/-0.660		+/-1.30						
	TPU:	+/-0.660		+/-1.47						
Batch 576991										
QC1201202366 173317001 DUP										
Iron-55	U	0.513	U	1.44	pCi/g	0		(0% - 100%)	MXP1	10/20/06 03:27

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 576991										
	Uncert:	+/-1.71		+/-2.14						
	TPU:	+/-1.71		+/-2.14						
QC1201202368 LCS										
Iron-55	59.0			58.6	pCi/g		99	(75%-125%)		10/19/06 13:52
	Uncert:			+/-4.96						
	TPU:			+/-6.33						
QC1201202365 MB										
Iron-55			U	0.485	pCi/g					10/20/06 02:40
	Uncert:			+/-1.62						
	TPU:			+/-1.62						
QC1201202367 173317001 MS										
Iron-55	58.5 U	0.513		51.1	pCi/g		87	(75%-125%)		10/19/06 13:35
	Uncert:	+/-1.71		+/-5.33						
	TPU:	+/-1.71		+/-6.46						
Batch 576997										
QC1201202384 173317005 DUP										
Tritium	U	-0.344	U	-0.20	pCi/g	0		(0% - 100%)	DFA1	10/17/06 16:46
	Uncert:	+/-1.52		+/-1.47						
	TPU:	+/-1.52		+/-1.47						
QC1201202386 LCS										
Tritium	10.7			11.6	pCi/g		109	(75%-125%)		10/17/06 17:19
	Uncert:			+/-2.27						
	TPU:			+/-2.28						
QC1201202383 MB										
Tritium			U	-0.93	pCi/g					10/17/06 16:30
	Uncert:			+/-1.41						
	TPU:			+/-1.41						
QC1201202385 173317005 MS										
Tritium	11.3 U	-0.344		8.53	pCi/g		76	(75%-125%)		10/17/06 17:03
	Uncert:	+/-1.52		+/-2.17						
	TPU:	+/-1.52		+/-2.18						
Batch 577741										
QC1201203957 173317009 DUP										
Carbon-14	U	-0.592	U	-0.40	pCi/g	0		(0% - 100%)	AXD2	10/13/06 01:03
	Uncert:	+/-0.418		+/-0.390						
	TPU:	+/-0.418		+/-0.390						
QC1201203959 LCS										
Carbon-14	17.9			20.3	pCi/g		113	(75%-125%)		10/13/06 02:37
	Uncert:			+/-0.661						
	TPU:			+/-0.733						
QC1201203956 MB										
Carbon-14			U	-0.212	pCi/g					10/13/06 00:16
	Uncert:			+/-0.350						
	TPU:			+/-0.350						
QC1201203958 173317009 MS										
Carbon-14	18.8 U	-0.592		21.2	pCi/g		113	(75%-125%)		10/13/06 01:50
	Uncert:	+/-0.418		+/-0.696						
	TPU:	+/-0.418		+/-0.771						
Batch 578383										

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 578383										
QC1201205219 173317012 DUP										
Technetium-99	U	0.0907	U	0.258	pCi/g	0		(0% - 100%)	KXR1	10/18/06 12:48
Uncert:		+/-0.518		+/-0.454						
TPU:		+/-0.518		+/-0.454						
QC1201205221 LCS										
Technetium-99	28.9			28.3	pCi/g		98	(75%-125%)		10/18/06 01:41
Uncert:				+/-1.17						
TPU:				+/-1.36						
QC1201205218 MB										
Technetium-99			U	0.622	pCi/g					10/18/06 00:52
Uncert:				+/-0.565						
TPU:				+/-0.565						
QC1201205220 173317012 MS										
Technetium-99	29.0 U	0.0907		28.0	pCi/g		97	(75%-125%)		10/18/06 01:25
Uncert:		+/-0.518		+/-1.28						
TPU:		+/-0.518		+/-1.46						
Batch 581329										
QC1201212321 173317001 DUP										
Nickel-63	U	3.06	U	-0.168	pCi/g	0		(0% - 100%)	MXP1	10/23/06 23:11
Uncert:		+/-2.55		+/-2.44						
TPU:		+/-2.55		+/-2.44						
QC1201212323 LCS										
Nickel-63	185			164	pCi/g		89	(75%-125%)		10/23/06 23:44
Uncert:				+/-7.76						
TPU:				+/-9.00						
QC1201212320 MB										
Nickel-63			U	2.44	pCi/g					10/23/06 22:55
Uncert:				+/-2.54						
TPU:				+/-2.54						
QC1201212322 173317001 MS										
Nickel-63	171 U	3.06		153	pCi/g		90	(75%-125%)		10/23/06 23:27
Uncert:		+/-2.55		+/-7.43						
TPU:		+/-2.55		+/-8.55						

Notes:
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated

QC Summary

Workorder: 173317

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.