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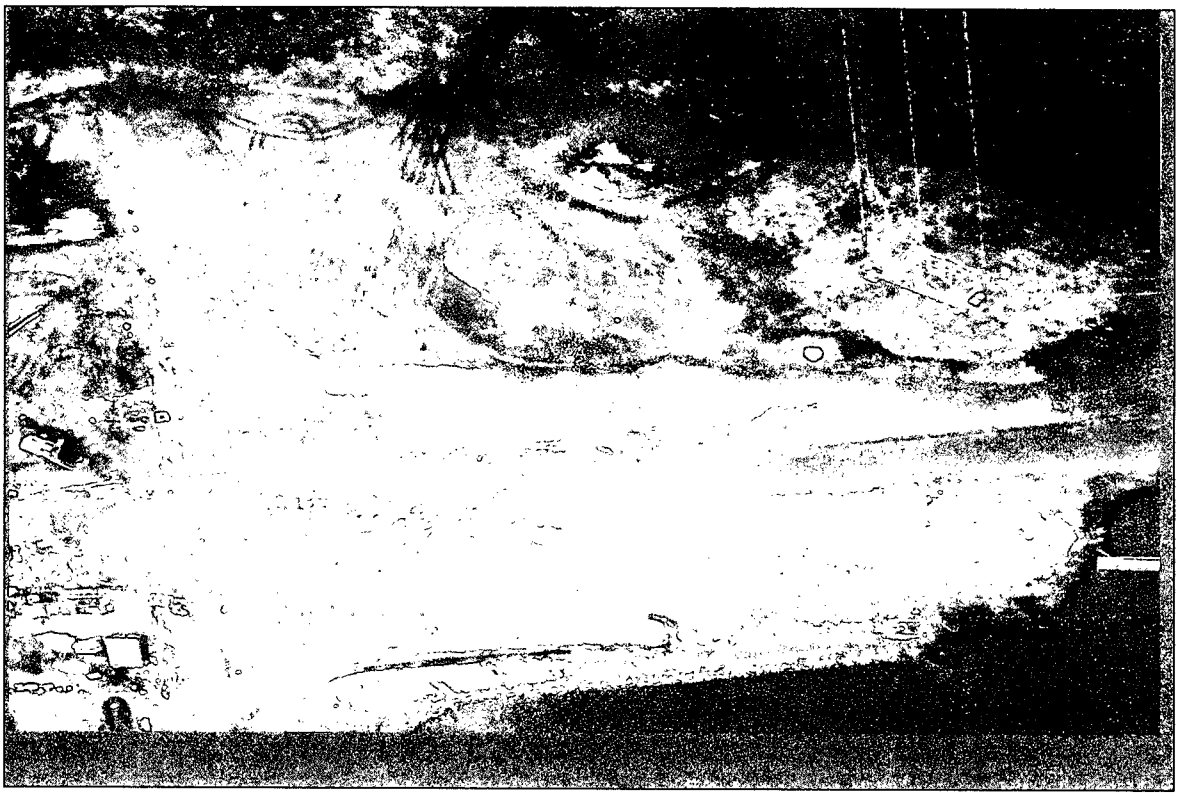

Final Status Survey Final Report Phase VI

Appendix A7

Survey Unit Release Record 9522-0002, Southeast Site Grounds (Non-Protected Area)

February 2007

CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0002

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Revision 0

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9522-0002 (Southeast Site Grounds (non-protected area) is designated as Final Status Survey (FSS) Class 1 and consists of approximately one thousand nine hundred thirteen square meters (1,913 m^2) of uninhabited land and is located approximately nine hundred seventy four feet (974 ft) from the reference coordinate system benchmark used at Haddam Neck Plant (HNP) (see Attachment 1). The survey unit is bounded as follows: land Survey Unit 9522-0007 to the north (called north as oriented with the north to south flow of the Connecticut River), land Survey Unit 9522-0003 to the west, land Survey Unit 9522-0001 to the south, and land Survey Unit 9527-0005 to the east. The survey unit is located along the east boundary of Survey Area 9522. It is comprised mostly of rock outcroppings, rock ledge, underbrush and trees. The survey unit has a moderate slope running southeast to northwest.

The reference coordinates associated with this survey unit are E013 through E015 by S075 through S078 (refer to "*HNP License Termination Plan*" (LTP) Section 5.4.4). The reference coordinates provide the maximum dimensions of a rectangle containing this survey unit. Some areas contained in this rectangle may not be part of this survey unit. The boundary of the survey unit was defined using a Global Positioning System (GPS) based on the Connecticut State Plane System North American Datum (NAD) 1927.

2. CLASSIFICATION BASIS

The survey unit was classified in accordance with Procedure RPM 5.1-10, *"Survey Unit Classification."*

The *"Classification Basis Summary"* conducted for Survey Unit 9522-0002 consisted of:

a) A review of the 10CFR50.75 (g) (1) database,

b) A review of the *"Initial Characterization Report"* and the *"Historic Site Assessment Supplement,"*

c) Historic and current survey records review,

d) Visual inspections and a "walkdown."

A review of the *"Initial and Supplemental Characterization Reports"* as well as the previous *"Classification Basis Summaries"* was performed. Survey Area 9522 includes a former survey area, 9308, that was consolidated into Survey Area 9522 in 2006. This survey area was initially designated as Class 2 during the development of the LTP.

The source documents, the "*Connecticut Yankee Haddam Neck Characterization Report*" and "*Initial Classification for Survey Areas at Connecticut Yankee*", were incorporated by reference in LTP, Revision 0. Survey Unit 9522-0002 was created in 2006 under Revision 4 of the LTP and was designated as Class 1.

Open land Survey Area 9522 was at one time an area immediately adjacent to the southern boundary of the Radiologically Controlled Area (RCA) and security fences. Initially, only a small section of the north side of the unit was paved, with the remainder of the unit gradually sloping down to the original site elevation. The industrial area was expanded to support plant operations and control exposure to radiation. According to the "*Haddam Neck Plant Historic Site Assessment Supplement,*" plant photos revealed that the area was gradually filled in from approximately 1972 to between 1974 and 1976, with soil that may have originated from on-site sources. The introduction of fill material raised the elevation up to site grade and thereby facilitating a reconfiguration and expansion of the RCA and security protected area. Photos taken in 1976 show that the area was landscaped with grass and small trees and was probably given the name "ball-field" at that time. Over the next several years, additional fill was brought in. By 1987, photos show that half of the survey area was paved and occupied with buildings. It is estimated that the elevation in the survey area may have increased by up to five (5) feet from the original site grade.

Survey Area 9522 was impacted by several radiologically significant events during plant operations. These include the discovery of several discrete sources of elevated activity on the ball-field in March 1980, the spill of radioactive liquid into an uncontrolled drain system in February of 1989 and the discovery of several discrete particles outside of the RCA in 1995. Additionally, a portion of Survey Area 9522 was used as a temporary laydown area for the Steam Generator Lower Assemblies (SGLAs) and the Pressurizer until these components where shipped off-site for disposal in 2001. All of these events occurred in the northern portion of Survey Area 9522.

According to Plant Information Report (PIR) 89-35, a section of Survey Area 9522 was contaminated in February 1989 following the release of radioactive material into an uncontrolled drain in the Spent Fuel Building. The drain discharged directly to an open trench that drained into a marshy area of the site. Freezing conditions limited the amount of radioactive material that left the protected area. The unanticipated release of radioactive material was identified during a routine radiological surveillance of the site. The area was remediated in 1989 to the established release criteria at the time (1E-5 μCi/g) and, according to memo CH 89-854, the Chemistry Group initiated a sampling program at the drainage site to monitor activity.

Adverse Condition Report (ACR) 95-0250 states that in 1995, several discrete particles were found outside of the RCA, but within the Industrial Area in Survey Area 9522. Based upon a review of the survey map, it appears that one (1) of these particles was located within this survey unit. In addition, two (2) other areas exhibiting elevated activity were identified in 1997 within this survey unit. In all cases, the areas of elevated activity were removed upon discovery.

In May of 2005, a Survey and Sampling Work Plan (SSWP №. 05-05-008) was developed and implemented to characterize the surface soil in this survey area. Seventeen (17) soil samples were collected as part of the effort to provide sample data with regard to types and quantities of radioactive material present in the surface soil. The soil samples were analyzed by the on-site laboratory. A review of this sample data shows Cs-137 and Co-60 to be the primary radionuclides of concern, which both isotopes reported at fairly low concentrations.

As part of the groundwater characterization effort, a large number of surface and sub-surface soil samples were taken and analyzed for the full suite of "Hard-to-Detect" (HTD) radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2. In some cases, soil was removed to meet the screening criteria in effect for groundwater dose compliance. No HTD radionuclides were positively identified in concentrations greater than the screening criteria upon completion of these surveys and the restoration of the affected areas using clean fill. Radionuclide screening or de-selection is a process where an individual radionuclide or aggregates may be considered insignificant and eliminated from the FSS. The criteria for de-selection are concentrations less than 5% for individual radionuclides and less than 10% for aggregates. Based upon the results of the previous surveys, it was determined to be unlikely that HTD radionuclides would be present in any significant concentration. Therefore, none of the soil samples taken as part of this characterization survey were analyzed for HTD radionuclides. Statistical quantities (mean, median and standard deviation) from the 2005 characterization survey conducted under SSWP 05-05-008 are provided in Table 1.

Table 1 – Basic Statistical Quantities for Cs-137 and Co-60 from the 2005 Characterization Survey

	Cs-137 (ρCi/g)	Co-60 (ρCi/g)
Minimum Value :	6.98E-05	-6.69E-02
Maximum Value :	4.01E+00	1.16E+00
Mean :	9.85E-01	1.60E-01
Median :	3.50E-01	2.10E-02
Standard Deviation :	1.28E+00	3.52E-01

The FSS Engineer performed a visual inspection and walk-down during September 2006 to assess the physical condition of the survey unit, evaluate access points, travel paths and identify potentially hazardous conditions.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024) which will be a source of dose from residual radioactivity, as discussed in Section 3 under the Data Quality Objectives.

Based upon the identification of radioactive material above the Derived Concentration Guideline Levels (DCGLs), and the need for radiological remediation, it was concluded that there was some probability for residual radioactivity in concentrations greater than the DCGLs, justifying a final survey unit classification of Class 1 (refer to Section 3).

3. DATA QUALITY OBJECTIVES (DQO)

FSS design and planning used the Data Quality Objective (DQO) process as described by the LTP, Procedure RPM 5.1-11, *"Preparation of Final Status Survey Plan,"* and the *"Multi-Agency Radiation Survey and Site Investigation Manual"* (MARSSIM). A summary of the main features of the DQO process are provided herein.

The DQO process incorporated hypothesis testing and probabilistic sampling distributions to control decision errors during data analysis. Hypothesis testing is a process based on the scientific method that compares a baseline condition to an alternate condition. The baseline condition is technically known as the null hypothesis. Hypothesis testing rests on the premise that the null hypothesis is true and that sufficient evidence must be provided for rejection. In designing the survey plan, the underlying assumption, or null hypothesis was that residual activity in the survey unit exceeded the release criteria. Rejection of the null hypothesis would indicate that residual activity within the survey unit does not exceed the release criteria.

The primary objective of the FSS plan was to demonstrate that the level of residual radioactivity in Survey Unit 9522-0002 did not exceed the release criteria specified in the LTP and that the potential dose from residual radioactivity is As Low As Reasonably Achievable (ALARA).

A fundamental precursor to survey design is to establish a relationship between the release criteria and some measurable quantity. This is done through the development of DCGLs. The DCGLs represent average levels of radioactivity above background levels and are presented in terms of surface or mass activity concentrations. Chapter 6 of the LTP describes in detail the modeling used to develop the DCGLs for soil (called Base Case Soil DCGL), existing groundwater radioactivity and future groundwater radioactivity that will be contributed by building basements and footings.

The DCGLs presented in Chapter 6 of the LTP were developed for exposures from three (3) components, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity. Equation 1 shows the mathematical relationship between the three (3) components and the total dose.

Equation 1

$$H_{Total} = H_{Soil} + H_{ExistingGW} + H_{FutureGW}$$

The total dose under the LTP criteria is twenty-five (25) mrem/yr Total Effective Dose Equivalent (TEDE) from all three (3) components. The allowable total dose under the Connecticut Department of Environmental Protection (CTDEP) radiological remediation standard for CY is nineteen (19) mrem/yr TEDE. To satisfy both the LTP and CY CTDEP criteria, the dose from soil must be reduced when using the existing and future groundwater dose values discussed above.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024). Therefore, the dose contribution from existing groundwater is bounded by two (2) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no buried concrete foundations or footings containing residual radioactive material within the groundwater saturated zone in the area (reference CY memo ISC 06-024). The dose contribution from future groundwater, the third dose component is, therefore, zero (0) mrem/yr TEDE.

Equation 2

$$19\ \text{mrem/yr}_{Total} = 17\ \text{mrem/yr}_{Soil} + 2\ \text{mrem/yr}_{Existing\ GW} + 0\ \text{mrem/yr}_{FutureGW}$$

The allowable dose for soil in this survey unit is seventeen (17) mrem/yr TEDE as shown by Equation 2 above. The concentration of residual radioactivity resulting in seventeen (17) mrem/yr TEDE is designated as the Operational DCGL ($DCGL_{op}$), and has been established for the radionuclides of concern as provided in Table 2.

Table 2 – Radionuclide Specific Base Case Soil DCGLs, Operational DCGLs and Required Minimum Detectable Concentrations (MDCs)

Radionuclide (1)	Base Case Soil DCGL (ρC/g) (2)	Operational DCGL (ρC/g) (3)	Required MDC (ρC/g) (4)
H-3	4.12E+02	2.80E+02	1.65E+01
C-14	5.66E+00	3.85E+00	2.26E-01
Mn-54	1.74E+01	1.18E+01	6.96E-01
Fe-55	2.74E+04	1.86E+04	1.10E+03
Co-60	3.81E+00	2.59E+00	1.52E-01
Ni-63	7.23E+02	4.92E+02	2.89E+01
Sr-90	1.55E+00	1.05E+00	6.20E-02
Nb-94	7.12E+00	4.84E+00	2.85E-01
Tc-99	1.26E+01	8.57E+00	5.04E-01
Ag-108m	7.14E+00	4.86E+00	2.86E-01
Cs-134	4.67E+00	3.18E+00	1.87E-01
Cs-137	7.91E+00	5.38E+00	3.16E-01
Eu-152	1.01E+01	6.87E+00	4.04E-01
Eu-154	9.29E+00	6.32E+00	3.72E-01
Eu-155	3.92E+02	2.67E+02	1.57E+01
Pu-238	2.96E+01	2.01E+01	1.18E+00
Pu-239/240	2.67E+01	1.82E+01	1.07E+00
Am-241 (5)	2.58E+01	1.75E+01	1.03E+00
Pu-241	8.70E+02	5.92E+02	3.48E+01
Cm-243/244	2.90E+01	1.97E+01	1.16E+00

(1) Bold indicates those radionucldies considered Hard to Detect (HTD)

(2) The Base Case Soil DCGL(s) are specified by the LTP in Chapter 6 and are equivalent to twenty-five (25) mrem/yr TEDE

(3) The Operational DCGL is equivalent to achieving seventeen (17) mrem/yr TEDE

(4) The required MDC is equivalent to achieving one (1) mrem/yr TEDE

(5) Americium-241 can be analyzed by gamma and alpha spectroscopy and is considered to be Easy to Detect (ETD). The preferred result is the alpha spectroscopy's when both analyses are performed

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. Soil samples were collected in 2005 to establish the radiological condition of Survey Unit 9522-0002 for FSS. Cs-137 and Co-60 were the two (2) gamma emitting radionuclides reported in concentrations with the potential for exceeding the screening criteria. The characterization data were used for the survey design and are provided in Table 1.

Instrument DQOs included a verification of the ability of the survey instrument to detect the radiation(s) of interest relative to the DCGL. Survey instrument response checks were required prior to issue and after the instrument had been used. Control and accountability of survey instruments was required to assure the quality and prevent the loss of data.

As part of the DQOs applied to laboratory processes, analysis results were reported as actual calculated results. Results reported as less than Minimum Detectable Concentration (MDC) were not accepted for FSS. Sample report summaries included unique sample identification, analytical method, radionuclide, result, and uncertainty to two (2) standard deviations, laboratory data qualifiers, units, and the required and observed MDC.

4. SURVEY DESIGN

The level of effort associated with planning a survey is based on the complexity of the survey and nature of the hazards. Guidance for preparing FSS plans is provided in Procedure RPM 5.1-11, "*Preparation of Final Status Survey Plans*". The FSS plan uses an integrated sample design that combines scanning surveys and sampling which can be either random or biased.

The DQO process determined that both Cs-137 and Co-60 would be the radionuclides of concern in Survey Unit 9522-0002 (refer to Section 3). The characterization survey did not include any HTD radionuclides of concern for this survey unit. Based on other survey data, surrogate DCGLs were not required as part of the survey design for this survey unit via screening under LTP Section 5.4.7.2, "*Gross Activity DCGLs*". Other radionuclides that were positively identified in concentrations greater than the screening criteria during the performance of this FSS would be evaluated to ensure adequate survey design.

As the survey unit is classified as a Class 1 surface soils area, and discrete, elevated areas of contamination was possible, the application of the Elevated Measurement Comparison (EMC) remained an option.

The Sign Test was selected as the non-parametric statistical test. The use of the Sign Test did not require the selection or use of a background reference area, which simplified survey design and implementation. This approach was conservative since it included background Cs-137 as part of the sample set.

The number of soil samples for FSS was determined in accordance with Procedure RPM 5.1-12, "*Determination of the Number of Surface Samples for Final Status Survey*." The Lower Bound of the Gray Region (LBGR) was set in accordance with Procedure RPM 5.1-11 to 0.5 to achieve a relative shift (Δ/σ) in the range of 1 and 3. The resulting relative shift was 1.82. A Prospective Power Curve was generated using COMPASS, a software package developed under the sponsorship of the United States Nuclear Regulatory Commission (USNRC) for implementation of the MARSSIM in support of the decommissioning license termination rule (10CFR20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design. The survey design specified sixteen (16) surface soil samples for non-parametric statistical testing. Based upon a review of the historical information and Characterization Survey data, the acquisition of additional judgmental surface soil samples from within this survey unit was deemed unnecessary.

The grid pattern and locations of the soil samples were determined using Visual Sample Plan (VSP) in accordance with Procedure RPM 5.1-14, "*Identifying, and Marking Surface Sample Locations for Final Status Survey*." Visual Sample Plan was created by Pacific Northwest National Laboratory (PNNL) for the United States Department of Energy. A systematic triangular grid pattern with a random starting point was selected for sample design, which is appropriate for a Class 1 area.

Sample locations were identified using AutoCAD-LT, a commercially available plotting software package with coordinates consistent with the Connecticut State Plane System. These coordinates were integrated with a GPS to locate sample locations in the field. Sample Measurement Locations for the design are listed with the GPS coordinates in Table 3.

Table 3 - Sample Measurement Locations with Associated GPS Coordinates

Designation	Northing	Easting
9522-0002-001F	236577.94	669130.81
9522-0002-002F	236544.29	669150.24
9522-0002-003F	236544.29	669189.10
9522-0002-004F	236510.63	669169.67
9522-0002-005F	236510.63	669208.54
9522-0002-006F	236510.63	669247.40
9522-0002-007F	236476.98	669189.10
9522-0002-008F	236476.98	669227.97

Table 3 - (continued)

Designation	Northing	Easting
9522-0002-009F	236476.98	669266.83
9522-0002-010F	236443.33	669169.67
9522-0002-011F	236443.33	669208.54
9522-0002-012F	236443.33	669247.40
9522-0002-013F	236409.67	669189.10
9522-0002-014F	236409.67	669227.97
9522-0002-015F	236409.67	669266.83
9522-0002-016F	236376.02	669247.40

Procedure RPM 5.1-11 specifies that 5% of the samples are required to be selected for HTD analysis. Two (2) soil samples, or about 10% of the number of samples that would be used for non-parametric statistical testing were randomly selected for HTD radionuclide analysis using the Microsoft Excel "RANDBETWEEN" function. Each sample was sent off-site for a full suite analysis of the HTD radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2.

The LTP requires a minimum of 5% of the samples taken for non-parametric statistical testing be selected for QC evaluation. The implementation of quality control measures as referenced by Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*," included the collection of one (1) soil sample for "split sample" analysis by the off-site laboratory. This location was selected randomly using the Microsoft Excel "RANDBETWEEN" function.

The LTP specifies a required scanning coverage of 100% for outdoor Class 1 areas.

For this Class 1 survey unit, the "Investigation Level" for area scanning and soil sample measurement results are those levels specified in LTP, Table 5-8. Table 4 provides a synopsis of the survey design.

Table 4 – Synopsis of the Survey Design

Feature	Design Criteria	Basis
Survey Unit Land Area	1,913 m^2	Based on AutoCAD-LT
Number of Measurements	16 (16 systematic grid)	Type 1 and Type 2 errors were 0.05, sigma was 0.27 ρCi/g, the LBGR was set at 0.5 to achieve a Relative Shift in the range of 1 and 3
Grid Spacing	11.85 m	Based on triangular grid
Operational DCGL	5.38 ρCi/g Cs-137 2.59 ρCi/g Co-60	Administratively set to achieve 17 mrem/yr TEDE (1)
Soil Investigation Level	5.38 ρCi/g Cs-137 2.59 ρCi/g Co-60	The Operational DCGL meets the LTP criteria for a Class 1 survey unit
Scan Survey Area Coverage	Approximately 100% of the area	The LTP requires 100% area coverage for Class 1 survey units
Scan Investigation Level	An instrument response greater than the Scan MDC($DCGL_{EMC}$) of 3,108 cpm	Based upon a Minimum Detectable Count Rate (MDCR) of 1,597 cpm and a corresponding MDC_{scan} of 7 ρCi/g Cs-137 and 1.83 ρCi/g Co-60

(1) The allowable dose for soil in this survey unit is seventeen (17) mrem/yr TEDE as the bounding dose from existing and future groundwater has been established based on field data (reference CY memo ISC 06-024)

5. SURVEY IMPLEMENTATION

Final status survey field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0047. The WP&IR package included a detailed FSS plan, job safety analysis, job planning checklist and related procedures for reference. Daily briefings were conducted to discuss the expectations for job performance and the safety aspects of the survey. The "Daily Survey Journal" was used to document field activities and other information pertaining to the FSS.

A single scan area was established that constituted approximately 100% of the surface area of Survey Unit 9522-0002. Grid lines, one (1) meter wide, were painted on the ground of the scan area. A background survey was performed around the survey unit and it was determined that, using an Eberline E-600 with a SPA-3 sodium iodide detector, background ranged from 7,080 counts per minute (cpm) up to 10,400 cpm.

The scan area was established and scanned for elevated readings (see Attachment 2 for all scan results). Scanning was performed with an Eberline E-600 using a SPA-3 sodium iodide detector. The E-600 was operated in the rate-meter mode and used with audio response. The probe was positioned as close to the ground as possible and was moved at a scan speed of about 0.5 meters per second. Approximately 100% of the survey unit was scanned.

Measurement locations were identified in North American Datum (NAD) 1927 coordinates using GPS coordinates; sample locations were identified and marked with a surveyor's flag or paint for identification. At each sample location, a one (1) meter radius circle was established around the sample flag or paint mark was scanned for elevated radiation levels.

Sixteen (16) surface soil samples were collected and packaged in accordance with Haddam Neck Plant (HNP) Procedure RPM 5.1-3, "*Collection of Sample Media for Final Status Survey*" and FSS design. Samples were controlled, transported, stored, and transferred to the off-site laboratory using Chain-of-Custody (COC) protocol in accordance with Procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples.*"

Two (2) samples (9522-0002-001F and 9522-0002-004F) were randomly selected for HTD radionuclide analysis.

The implementation of survey specific quality control measures included the collection of one (1) sample (9522-0002-007F) for "split sample" analysis.

6. SURVEY RESULTS

All field survey activities were conducted between October 27, 2006 and December 20, 2006.

The sample locations identified in the FSS plan were scanned over approximately a one (1) meter radius for elevated radiation levels. Table 5 provides an overview of the scan results for sample measurement locations. Scan results are provided in Attachment 2.

Table 5 - Scan Results for Sample Measurement Locations

Sample Measurement Location	Highest Logged Reading (kcpm)	Action Level (1) (kcpm)	> Action Level (2)
1	10.90	11.86	NO
2	9.47	10.20	NO
3	9.87	10.57	NO
4	10.10	11.01	NO

Table 5 - (continued)

Sample Measurement Location	Highest Logged Reading (kcpm)	Action Level (1) (kcpm)	> Action Level (2)
5	10.40	10.08	YES
6	8.96	10.14	NO
7	9.86	11.54	NO
8	9.36	9.30	YES
9	9.65	9.16	YES
10	9.98	10.11	NO
11	7.81	9.47	NO
12	8.66	11.28	NO
13	10.10	10.06	YES
14	9.39	9.28	YES
15	8.86	10.02	NO
16	9.61	9.39	YES

(1) The action level is based on a measurement above ambient background in accordance with the FSS plan (MDC($DCGL_{EMC}$) of 3,108 cpm)

(2) The FSS plan requires movement of the sample measurement location to the area within the 1 meter radius yielding the response above the action level. Sample locations 9522-0002-005F, 9522-0002-008F, 9522-0002-009F, 9522-0002-013F, 9522-0002-014F and 9522-0002-016F were moved accordingly.

The scan areas, that comprised approximately 100% of the total surface area for the survey unit, were scanned for elevated radiation levels. The areas were scanned in accordance with the FSS plan on October 27, 2006 through November 7, 2006.

Seventy-four (74) scan strips were initially established in this survey unit. Scan strips designated as #1 through #17 and #23 through #32 were initially established on the far western portion of the survey unit by initial GPS mapping. While performing the scan survey, supporting GPS measurements revealed that the initial GPS measurements were incorrect. Subsequently, scan surveys of scan strips initially designated as #1 through #17 and #23 through #32 for Survey Unit 9522-0002 were removed from this survey unit and included in adjacent land Survey Unit 9522-0003.

Several elevated measurement locations were identified during scanning. Table 6 provides an overview of the scan area survey. Scan results are provided in Attachment 2.

Table 6 - Scan Area Results

Scan Strips	Highest Logged Reading (kcpm)	Action Level (1) (kcpm)	Elevated Reading Identification (2)	Investigation Sample
18 thru 22	11.00	10.10	9522-02-ER-00-20-1	9522-0002-024I
			9522-02-ER-00-21-1	9522-0002-025I
			9522-02-ER-00-21-2	9522-0002-026I
			9522-02-ER-00-22-1	9522-0002-028I
			9522-02-ER-00-22-2	9522-0002-027I
33 thru 40	10.10	9.50	9522-02-ER-00-37-1	9522-0002-029I
			9522-02-ER-00-38-1	9522-0002-030F
			9522-02-ER-00-39-1	9522-0002-031I
41 thru 50	10.80	9.67	9522-02-ER-00-41-1	9522-0002-032I
			9522-02-ER-00-41-2	9522-0002-033F
			9522-02-ER-00-41-3	9522-0002-034F
			9522-02-ER-00-42-1	9522-0002-035F
			9522-02-ER-00-42-2	9522-0002-036F
			9522-02-ER-00-43-1	9522-0002-037F
			9522-02-ER-00-45-1	9522-0002-038F
			9522-02-ER-00-46-1	9522-0002-039F
			9522-02-ER-00-47-1	9522-0002-040F
			9522-02-ER-00-50-1	9522-0002-041F
			9522-02-ER-00-50-2	9522-0002-042I
51 thru 60	9.25	8.28	9522-02-ER-00-57-1	9522-0002-043I
61 thru 70	10.50	9.47	9522-02-ER-00-65-1	9522-0002-044I
71 thru 74	8.49	9.60	None	None

(1) The action level is based on a measurement above ambient background (MDC($DCGL_{EMC}$) of 3,108 cpm)

(2) ER is an abbreviation associated with the barcodes used in the field where ER stands for Elevated Reading.

The off-site laboratory employed for the radiological analyses of samples was General Engineering Laboratories, LLC. The laboratory analyzed the sixteen (16) samples collected for non-parametric statistical testing, the associated field splits and the twenty-one (21) investigation samples using gamma spectroscopy. Gamma spectroscopy analysis was performed to the required MDCs. Gamma spectroscopy results identified some radionuclides meeting the accepted criteria for detection (i.e., a result greater than two (2) standard deviations uncertainty). However, Cs-137 and Co-60 were the only gamma-emitting radionuclides reported in concentrations exceeding the de-selection criteria.

Cs-137 was identified in fifteen (15) and Co-60 was identified in seven (7) of the sixteen (16) samples collected for non-parametric statistical testing. The mean of the gamma spectroscopic analysis results for the sample population indicated that Cs-137 was present at levels slightly higher than expected environmental levels for Cs-137 within the vicinity of the HNP as presented in the Health Physics TSD BCY-HP-0063. A summary of the sixteen (16) samples collected for non-parametric statistical testing results is provided in Table 7.

Table 7 - Summary of Gamma Spectroscopy Results for Surface Soil Samples Comprising the Statistical Sample Population

Sample Number	Cs-137 pCi/g	Co-60 pCi/g
9522-0002-001F	6.19E-02	-9.75E-03
9522-0002-002F	7.03E-02	1.11E-02
9522-0002-003F	5.81E-01	-9.75E-03
9522-0002-004F	2.67E-01	2.30E-04
9522-0002-005F	7.68E-01	3.27E-02
9522-0002-006F	1.08E+00	3.04E-02
9522-0002-007F	3.46E-01	8.53E-03
9522-0002-008F	9.13E-01	3.80E-02
9522-0002-009F	1.17E+00	3.70E-02
9522-0002-010F	3.87E-01	4.13E-02
9522-0002-011F	7.97E-01	3.82E-02
9522-0002-012F	7.62E-01	1.26E-02
9522-0002-013F	2.47E-01	-4.51E-03

Table 7 - (continued)

Sample Number	Cs-137 ρCi/g	Co-60 ρCi/g
9522-0002-014F	1.30E+00	5.76E-02
9522-0002-015F	1.93E+00	1.62E-01
9522-0002-016F	2.48E-01	1.59E-02

The off-site laboratory also processed two (2) samples for HTD analyses as required by the sample plan. The requested analyses included alpha spectroscopy, gas proportional counting, and liquid scintillation depending on the radionuclide and the measurement method. All analyses performed met the required minimum MDC.

Sr-90 was positively identified (i.e., a result greater than two (2) standard deviations uncertainty) in both of the two (2) samples analyzed for HTD radionuclides. As previously stated in Section 4 of this report, the criteria for de-selection of a radionuclide is a concentration that is less than 5% of the Operational DCGL for individual radionuclides and less than 10% of the Operational DCGLs for aggregates. For Sr-90, the Operational DCGL is 1.05 ρCi/g to achieve a TEDE of seventeen (17) mrem/yr. The analytical results for Sr-90 in the two (2) samples selected for HTD analysis respectively equated to 12% and 4% of the Operational DCGL. Subsequently, Sr-90 was added as a radionuclide of concern and all soil samples for this survey unit were subjected to additional analysis for the presence of Sr-90. No other HTD radionuclides were detected. The results of the Sr-90 analysis for the statistical sample population are provided below in Table 8.

Table 8 - Summary of Sr-90 Analysis Results for Surface Soil Samples Comprising the Statistical Sample Population

Sample Number	Sr-90 ρCi/g
9522-0002-001F	1.24E-01
9522-0002-002F	-9.50E-03
9522-0002-003F	3.48E-03
9522-0002-004F	4.02E-02
9522-0002-005F	2.67E-02
9522-0002-006F	3.47E-02
9522-0002-007F	4.33E-03

Table 8 - (continued)

Sample Number	Sr-90 pCi/g
9522-0002-008F	2.35E-02
9522-0002-009F	2.27E-02
9522-0002-010F	5.84E-02
9522-0002-011F	-1.87E-02
9522-0002-012F	-3.32E-02
9522-0002-013F	6.63E-02
9522-0002-014F	1.22E-01
9522-0002-015F	5.47E-02
9522-0002-016F	1.31E-02

As part of several subsequent investigative sample populations, seven (7) additional samples were taken and analyzed for the full suite of radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2. In addition to the Sr-90 previously identified, C-14 was also positively identified (i.e. a result greater than two (2) standard deviations uncertainty) in four (4) of the seven (7) additional soil samples selected. For C-14, the Operational DCGL is 3.85 pCi/g to achieve a TEDE of seventeen (17) mrem/yr. Two (2) of the four (4) positive analytical results equated to 5% of the Operational DCGL. Consequently, C-14 was also added as a radionuclide of concern for this survey unit. No other HTD radionuclides were detected. The C-14 analysis results for the four (4) samples where C-14 was positively identified is provided in Table 9.

Table 9 - Summary of Positive C-14 Analysis Results for Statistical and Investigative Soil Samples

Sample Number	C-14 pCi/g
9522-0002-001F	-1.54E-02
9522-0002-004F	-4.67E-02
9522-0002-051I	1.24E-02
9522-0002-056I	2.09E-01
9522-0002-061I	3.69E-02

Table 9 - (continued)

Sample Number	C-14 pCi/g
9522-0002-062I	1.20E-01
9522-0002-063I	1.37E-01
9522-0002-064I	6.85E-02
9522-0002-065I	1.96E-01

The nine (9) soil samples that were analyzed for C-14 were evaluated to assess the distribution of the detected radionuclides of concern. The radionuclide distribution percentage for each sample in the population was calculated by dividing the concentration of each detected radionuclide by the total activity concentration in the sample, expressing the abundance of the specific nuclide in the sample compared against the total activity. The mean radionuclide distribution was then calculated by taking the average of the individual sample distribution fractions. The resultant distribution fractions are presented in Table 10 below.

Table 10 – Distribution Fraction for Detectable Radionuclides in the Sample Population Analyzed for HTD Radionuclides

Detected Radionuclide	Distribution Fraction
Cs-137	0.8053
Co-60	0.0134
Sr-90	0.1663
C-14	0.0150

The potential presence of C-14 in all samples taken that were not subjected to direct analysis for C-14 were addressed by using a surrogate relationship to another detectable radionuclide as recommended in NUREG-1575 (MARSSIM), in this case Cs-137. To demonstrate compliance with the release criteria by direct comparison to the DCGL, the DCGL for the surrogate radionuclide, in this case Cs-137, was scaled to account for the fact that it was being used as an indicator for additional radionuclides, in this case C-14. This result is referred to as the surrogate DCGL.

The surrogate DCGL was computed based on the distribution ratio between the hard-to-detect radionuclides and the easy-to-detect radionuclides. The surrogate DCGL is computed as follows:

Equation 3

$$Surrogate_{DCGL} = \frac{1}{\left[\left(\frac{1}{DCGL_{Sur}}\right)+\left(\frac{R_2}{DCGL_2}\right)+\left(\frac{R_3}{DCGL_3}\right)+\ldots\left(\frac{R_n}{DCGL_n}\right)\right]}$$

Where: $DCGL_{Sur}$ = Surrogate radionuclide DCGL
$DCGL_{2,3\ldots n}$ = DCGL for radionuclides to be represented by the surrogate
R_n = Ratio of concentration (or nuclide mixture fraction) of radionuclide "n" to surrogate radionuclide

Using the DCGLs presented in Table 2 and the soil nuclide distribution presented in Table 9, the following surrogate calculation was deduced;

Equation 4

$$Surrogate_{DCGL(Cs-137)} = \frac{\mathbf{1}}{\left[\left(\frac{\mathbf{1}}{\mathbf{5.38}_{(Cs-137)}}\right)+\left(\frac{.02/.81}{\mathbf{3.85}_{(C-14)}}\right)\right]} = \mathbf{5.24} \quad pCi/g$$

Subsequently, the surrogate DCGL that was used for Cs-137 in this survey unit for direct comparison of investigative sample results to demonstrate compliance with the operational dose limit of seventeen (17) mrem per year, is 5.24 ρCi/g.

The "sum-of-fractions" or "unity rule" is the mathematical test used to evaluate compliance with radiological criteria for license termination when more than one radionuclide has been determined to be potentially present. The combination of the fractions of each detected radionuclide against their respective Operational DCGL must be less than or equal to one (1). The unity rule is:

Equation 5

$$\frac{C_1}{DCGL_1}+\frac{C_2}{DCGL_2}+\ldots\ldots\frac{C_n}{DCGL_n} \leq 1$$

Where: C_n = concentration of radionuclide *n* and
$DCGL_n$ = DCGL of radionuclide *n*.

The results of the unity rule calculation for the radionuclides of concern in the statistical sample population for Survey Unit 9522-0002 are provided in Table 11 below.

Table 11 – Results of Unity Calculation for Surface Soil Samples Comprising the Statistical Sample Population

Sample Number	Fraction of the Operational DCGL(1)(2)			Unity
	Cs-137	Co-60	Sr-90	
9522-0002-001F	-	-	0.12	0.118
9522-0002-002F	0.01	-	-	0.013
9522-0002-003F	0.11	-	-	0.111
9522-0002-004F	0.05	-	0.04	0.089
9522-0002-005F	0.15	0.01	0.03	0.185
9522-0002-006F	0.20	-	0.03	0.239
9522-0002-007F	0.07	-	-	0.066
9522-0002-008F	0.17	0.01	0.02	0.211
9522-0002-009F	0.22	0.01	0.02	0.259
9522-0002-010F	0.07	0.02	0.06	0.145
9522-0002-011F	0.15	0.01	-	0.167
9522-0002-012F	0.14	-	-	0.145
9522-0002-013F	0.05	-	0.06	0.110
9522-0002-014F	0.25	0.02	0.12	0.386
9522-0002-015F	0.37	0.06	0.05	0.483
9522-0002-016F	0.05	-	-	0.047

(1) The Operational DCGL from Table 2 is 5.38 ρCi/g for Cs-137, 2.59 ρCi/g for Co-60 and 1.05 ρCi/g for Sr-90 to achieve seventeen (17) mrem/yr TEDE respectively. The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

(2) Blank cells indicate that the radionuclide was not positively detected in the sample

7. QUALITY CONTROL

The off-site laboratory processed the split samples and performed gamma spectroscopy analysis. One sample location was selected for analysis, which exceeds the 5% minimum required by the LTP. The data were evaluated using USNRC acceptance criteria specified in Inspection Procedure 84750 as detailed in HNP Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*". Cs-137 was detected in sufficient quantities in both samples to evaluate

in accordance with procedure. There was acceptable agreement between the field split results.

The sample analysis vendor, General Engineering Laboratories, LLC, maintains quality control and quality assurance plans as part of normal operation. Refer to Attachments 3 and 4 for data and data quality analysis results

8. INVESTIGATIONS AND RESULTS

Twenty-one (21) investigative surface soil samples were collected from scan areas exhibiting elevated scan readings. These confirmatory soil samples were analyzed for Cs-137 and Co-60 in accordance with the DQOs used during the survey design. Investigative Sample designations are listed with the GPS coordinates in Table 12.

Table 12 - Investigative Sample Designations with Associated GPS Coordinates

Designation	Northing	Easting
9522-0002-0024-I	236528.06	669142.91
9522-0002-0025-I	236537.05	669143.28
9522-0002-0026-I	236563.56	669129.28
9522-0002-0027-I	236530.59	669152.89
9522-0002-0028-I	236573.81	669130.47
9522-0002-0029-I	236445.12	669250.96
9522-0002-0030-I	236415.28	669241.72
9522-0002-0031-I	236518.10	669243.42
9522-0002-0032-I	236450.69	669231.61
9522-0002-0033-1	236447.14	669232.09
9522-0002-0034-I	236404.17	669240.54
9522-0002-0035-I	236456.26	669233.63
9522-0002-0036-I	236422.29	669229.92
9522-0002-0037-I	236448.78	669225.45
9522-0002-0038-I	236454.53	669217.94
9522-0002-0039-I	236485.86	669207.87
9522-0002-0040-I	236474.94	669206.07

Table 12 - (continued)

Designation	Northing	Easting
9522-0002-0041-I	236477.21	669199.70
9522-0002-0042-I	236488.82	669201.85
9522-0002-0043-I	236493.08	669189.73
9522-0002-0044-I	236557.25	669162.71

As previously stated, Sr-90 was positively identified (i.e. a result greater than two (2) standard deviations uncertainty) in the two (2) surface soil samples selected for HTD analysis and Sr-90 was added as a radionuclide of concern for this survey unit. Subsequently, all surface soil samples were subjected to additional analysis for the presence of Sr-90. In addition, the potential presence of C-14 was addressed by using a surrogate relationship to another detectable radionuclide, in this case Cs-137. The surrogate DCGL that was used for Cs-137 in this survey unit for direct comparison of investigative sample results to demonstrate compliance with the operational dose limit of seventeen (17) mrem per year is 5.24 ρCi/g.

Scan strips designated as #1 through #17 and #23 through #32 were initially established on the far western portion of the survey unit by initial GPS mapping. While performing the scan survey, supporting GPS measurements revealed that the initial GPS measurements were incorrect. Subsequently, scan surveys of scan strips initially designated as #1 through #17 and #23 through #32, as well as investigative soil samples designated as #17 through #23 for Survey Unit 9522-0002 were removed from this survey unit and included in adjacent land Survey Unit 9522-0003.

The samples are denoted as shown in Table 6, with the sample results shown in Table 13 below.

Table 13 - Investigation Sample Results

Sample Number	Cs-137 ρCi/g	Co-60 ρCi/g	Sr-90 ρCi/g	Unity Fraction (1)
9522-0002-024-I	3.46E-01	7.42E-01	1.66E-01	0.511
9522-0002-025-I	8.03E-01	3.77E-01	1.83E-01	0.473
9522-0002-026-I	1.83E-01	7.33E-03	1.35E-02	0.035
9522-0002-027-I	3.29E-01	2.27E-02	1.98E-02	0.063

Table 13 - (continued)

Sample Number	Cs-137 ρCi/g	Co-60 ρCi/g	Sr-90 ρCi/g	Unity Fraction (1)
9522-0002-028-I	2.39E-01	0.00E+00	2.53E-02	0.070
9522-0002-029-I	1.08E+00	7.06E-02	-6.81E-03	0.206
9522-0002-030-I	4.11E+00	9.24E-02	7.45E-02	0.890
9522-0002-031-I	9.83E-01	2.11E-02	2.70E-02	0.213
9522-0002-032-I	9.07E+00	3.08E-01	1.11E-01	1.954
9522-0002-033-I	5.49E+00	1.22E-01	7.05E-02	1.161
9522-0002-034-I	2.17E+00	1.26E-01	2.54E-01	0.704
9522-0002-035-I	5.88E+00	1.06E-01	2.60E-02	1.162
9522-0002-036-I	6.41E+00	3.41E-01	1.59E-01	1.506
9522-0002-037-I	7.37E+00	2.99E-01	9.03E-02	1.607
9522-0002-038-I	2.47E+00	3.00E-02	2.09E-02	0.471
9522-0002-039-I	4.77E+00	2.45E-01	3.49E-01	1.337
9522-0002-040-I	2.72E+00	5.39E-02	2.32E-02	0.562
9522-0002-041-I	1.29E+00	2.95E-02	4.72E-02	0.302
9522-0002-042-I	1.32E+00	3.82E-02	-6.70E-03	0.252
9522-0002-043-I	1.78E-01	9.77E-04	2.69E-02	0.060
9522-0002-044-I	2.89E+00	1.75E-01	4.40E-02	0.661

(1) The Operational DCGL from Table 2 is 5.38 ρCi/g for Cs-137, 2.59 ρCi/g for Co-60 and 1.05 ρCi/g for Sr-90 to achieve seventeen (17) mrem/yr TEDE respectively. The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

Cs-137 was positively identified in all, Co-60 was positively identified in thirteen (13) and Sr-90 was positively identified in fifteen (15) of the twenty-one (21) investigative samples taken. Five (5) of the investigative surface soil samples contained sufficient concentrations of Cs-137 to exceed the surrogate adjusted Operational DCGL of 5.24 ρCi/g and six (6) soil samples contained sufficient concentrations of Cs-137, Co-60 and Sr-90 to exceed the "unity rule" parameter of "1". The results of the investigative samples were displayed on a posting plot to illustrate the relative size and orientation of the areas exhibiting elevated activity.

Following a review of the posting plot, it was subsequently determined that sixteen (16) additional surface soil samples would be necessary to adequately bound two (2) areas of elevated activity identified by the previous survey results. Sample locations were identified in Addendum 1 to the Final Status Survey Plan. The sample locations that were chosen were biased to bound the identified areas, designated using AutoCAD-LT and integrated with GPS to locate sample locations in the field. Investigative Sample designations are listed with the GPS coordinates in Table 14.

Table 14 - Bounding Sample Designations with Associated GPS Coordinates

Designation	Northing	Easting
9522-0002-045-I	236521.14	669243.22
9522-0002-046-I	236517.98	669246.25
9522-0002-047-I	236514.83	669243.22
9522-0002-048-I	236517.98	669240.17
9522-0002-049-I	236489.10	669207.88
9522-0002-050-I	236485.48	669211.63
9522-0002-051-I	236482.83	669208.08
9522-0002-052-I	236486.02	669204.39
9522-0002-053-I	236459.33	669234.95
9522-0002-054-I	236459.33	669247.51
9522-0002-055-I	236445.51	669248.12
9522-0002-056-I	236424.02	669249.75
9522-0002-057-I	236411.80	669250.49
9522-0002-058-I	236412.15	669224.80
9522-0002-059-I	236425.30	669223.97
9522-0002-060-I	236447.69	669222.65

All sixteen (16) samples were analyzed for Cs-137, Co-60 and Sr-90. In addition, the two samples identified by on-site gamma spectroscopy analysis that exhibited the highest radionuclide concentration were selected for analysis for the full suite of radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2.

As previously stated, C-14 was positively identified (i.e. a result greater than two (2) standard deviations uncertainty) in the two (2) surface soil samples selected for HTD analyses as part of this sample population and C-14 was added as a radionuclide of concern for this survey unit. No other HTD radionuclides were detected.

The sample results and the results of the unity rule calculation for the radionuclides of concern in the bounding sample population are provided in Table 15 below.

Table 15 - Bounding Sample Results

Sample Number	Cs-137 ρCi/g	Co-60 ρCi/g	Sr-90 ρCi/g	Unity Fraction (1)
9522-0002-045-I	9.57E-01	2.23E-02	7.87E-02	0.266
9522-0002-046-I	3.74E-01	1.11E-02	2.05E-02	0.091
9522-0002-047-I	1.07E+00	3.64E-02	8.07E-02	0.295
9522-0002-048-I	7.90E-01	1.15E-02	4.27E-02	0.191
9522-0002-049-I	1.15E+00	0.00E+00	3.02E-02	0.248
9522-0002-050-I	1.10E+00	2.97E-01	7.39E-02	0.395
9522-0002-051-I	3.39E+00	6.66E-02	1.04E-01	0.771
9522-0002-052-I	1.63E+00	2.61E-02	6.49E-02	0.373
9522-0002-053-I	7.62E-01	1.65E-02	5.63E-02	0.205
9522-0002-054-I	1.24E+00	2.93E-02	1.93E-02	0.266
9522-0002-055-I	1.10E+00	2.01E-02	-1.13E-02	0.218
9522-0002-056-I	5.26E+00	9.19E-02	3.41E-01	1.363
9522-0002-057-I	1.59E+00	7.70E-02	1.14E-01	0.442
9522-0002-058-I	1.62E+00	5.15E-02	-5.27E-03	0.309
9522-0002-059-I	1.33E+00	2.41E-02	1.58E-02	0.278
9522-0002-060-I	3.02E+00	0.00E+00	8.33E-02	0.655

(1) The Operational DCGL from Table 2 is 5.38 ρCi/g for Cs-137, 2.59 ρCi/g for Co-60 and 1.05 ρCi/g for Sr-90 to achieve seventeen (17) mrem/yr TEDE respectively. The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

Cs-137 was positively identified in all, Co-60 was positively identified in ten (10) and Sr-90 was positively identified in fourteen (14) of the sixteen (16) additional samples taken for area bounding. One (1) of the bounding surface soil samples contained sufficient concentrations of Cs-137, Co-60 and Sr-90 to exceed the "unity rule" parameter of "1". The results of the additional bounding samples were displayed on the posting plot to further refine the relative size and orientation of the areas exhibiting elevated activity.

Following a review of the posting plot, it was determined that five (5) additional surface soil samples would be necessary to further define the boundary of one of the previously identified areas of elevated activity. Sample locations were identified in Addendum 2 to the Final Status Survey Plan. The sample locations that were chosen were biased to further bound the identified areas, designated using AutoCAD-LT and integrated with GPS to locate sample locations in the field.

All five (5) additional bounding samples were analyzed for Cs-137, Co-60 and Sr-90 as well as the full suite of radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2. Investigative Sample designations are listed with the GPS coordinates in Table 16.

Table 16 - Bounding Sample Designations with Associated GPS Coordinates

Designation	Northing	Easting
9522-0002-061-I	236418.69	669253.45
9522-0002-062-I	236424.57	669256.30
9522-0002-063-I	236429.33	669252.57
9522-0002-064-I	236427.16	669245.67
9522-0002-065-I	236420.11	669245.79

The sample results and the results of the unity rule calculation for the radionuclides of concern in the bounding sample population are provided in Table 17 below.

Table 17 - Bounding Sample Results

Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Sr-90 pCi/g	Unity Fraction (1)
9522-0002-061-I	1.87E+00	1.88E-02	2.09E-01	0.556
9522-0002-062-I	1.14E+00	3.06E-02	4.06E-02	0.256
9522-0002-063-I	1.93E+00	4.12E-02	7.68E-02	0.457
9522-0002-064-I	3.33E+00	1.46E-01	2.92E-01	0.970
9522-0002-065-I	5.27E+00	1.69E-01	1.81E-01	1.243

(1) The Operational DCGL from Table 2 is 5.38 pCi/g for Cs-137, 2.59 pCi/g for Co-60 and 1.05 pCi/g for Sr-90 to achieve seventeen (17) mrem/yr TEDE respectively. The Operational DCGL for Cs-137 has been adjusted to 5.24 pCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

Cs-137 and Sr-90 were positively identified in all and Co-60 was positively identified in three (3) of the five (5) additional bounding samples. One (1) of the bounding surface soil samples contained sufficient concentrations of Cs-137, Co-60 and Sr-90 to exceed the "unity rule" parameter of "1". This sample was taken from a location within the previously bounded area. Subsequently, no other bounding samples were deemed necessary. The results of the additional bounding samples were displayed on the posting plot to further refine the relative size and orientation of the areas exhibiting elevated activity.

As previously stated, C-14 was positively identified (i.e. a result greater than two (2) standard deviations uncertainty) in two (2) of the five (5) surface soil samples selected for HTD analysis as part of this sample population. No other HTD radionuclides were detected

Two (2) areas of elevated activity were identified and adequately bounded by the investigation and bounding soil samples. The Elevated Measurement Comparison (EMC) protocol was applied to both areas of elevated activity in accordance with LTP Section 5.8.3 and 5.4.7.4. The value used for the area factor for each area was determined from the area bounded by the adjacent samples or by the area bounded by additional samples at or below the $DCGL_{op}$.

To accomplish this, the results of the soil samples were displayed on a posting plot (see Attachment 1) to establish the relative size and orientation of the areas exhibiting elevated activity. The "inquiry" function included with the AutoCAD-LT computer program was used to establish the size of the elevated areas in square meters. The first elevated area, located in the approximate southwest quadrant of the survey unit is centered approximately one hundred seven (107) feet to the northeast of the southwest corner of the survey unit and forty (40) feet from the south boundary of the survey unit. The approximate area of elevated activity is one hundred seventeen (117) square meters. The second elevated area, located in the approximate center of the survey unit is centered approximately

seventy six (76) feet to the southeast of the northwest corner of the survey unit. The approximate area of elevated activity is four (4) square meters.

Area Factors corresponding to the size of the elevated areas were selected from Table 5-5, *Area Factor for the Resident Farmer Scenario*, in Section 5.4.7.4 of the LTP. The Area Factors selected are provided in Table 18.

Table 18 - Selected Area Factors

	Area Factors for Elevated Area #1	Area Factors for Elevated Area #2
	Area Size: 117 m^2 Area Factor Size: 250 m^2	Area Size: 4 m^2 Area Factor Size: 4 m^2
Co-60	1.30	2.78
Sr-90	5.31	159.00
Cs-137	2.54	5.92

Using the Area Factors presented in Table 18 and the results of the soil samples, the following EMC calculation was deduced;

Equation 6

$$\frac{\delta}{DCGL_{op}} + \frac{C_{elevated1} - \delta}{(AreaFactor)x\,DCGL_{op}} \cdot \quad . + \frac{C_{elevatedi} - \delta}{(AreaFactor)x\,DCGL_{op}} \leq 1$$

where:

δ = average concentration outside of the elevated area
$C_{elevated\ 1,2,\ \ i}$ = average concentration inside elevated area "*i*"

The average concentration of the area within the survey unit outside of the elevated areas (δ) was calculated by taking the average radionuclide concentration from all surface soil samples and subtracting the radionuclide concentration average from each elevated area. This information is presented in Table 19.

Table 19 - Average Concentration of Radionuclides for Balance of Survey Unit

	Cs-137 (1)	Co-60	Sr-90
DCGLop (ρCi/g)	5.24E+00	2.59E+00	1.05E+00
Average Concentration (δ) (ρCi/g)	1.17E+00	6.29E-02	5.62E-02
Avg. Fraction of the DCGL	0.223	0.024	0.054
Avg. Unity for Balance of Survey Unit	0.301		

(1) The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

The average concentration of the first elevated area is presented in Table 20.

Table 20 - Average Concentration of Radionuclides for Elevated Area #1

	Cs-137 (1)	Co-60	Sr-90
Area Factor	2.54	1.30	5.31
$DCGL_{EMC}$ (ρCi/g):	1.33E+01	3.37E+00	5.58E+00
Avg. Concentration in Elevated Area:	6.11E+00	1.91E-01	1.32E-01
Avg. Concentration - δ:	4.94E+00	1.28E-01	7.54E-02
Avg. Fraction of DCGL:	0.371	0.038	0.014
Avg. Unity for Elevated Area #1:	0.422		

(1) The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

The average concentration of the second elevated area is presented in Table 21.

Table 21 - Average Concentration of Radionuclides for Elevated Area #2

	Cs-137 (1)	Co-60	Sr-90
Area Factor	8.98	4.22	314.00
$DCGL_{EMC}$ (ρCi/g):	4.71E+01	1.09E+01	3.30E+02
Avg. Concentration in Elevated Area:	4.77E+00	2.45E-01	3.49E-01
Avg. Concentration - δ:	3.60E+00	1.82E-01	2.93E-01
Avg. Fraction of DCGL:	0.076	0.017	0.001
Avg. Unity for Elevated Area #2:	0.094		

(1) The Operational DCGL for Cs-137 has been adjusted to 5.24 ρCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

The sum of the average unity result for each of the elevated areas and the balance of the survey unit equates to 0.817. As this value is less than one (1), this survey unit passes the unity EMC test.

9. REMEDIATION AND RESULTS

A majority of this survey unit did not undergo radiological remedial action as described by MARSSIM Section 5.4 prior to or as a result of the FSS. Remediation activities did occur along the northwest corner of the survey unit as part of the "Excavation 7" remediation project. In this area, contaminated soils that exceeded the groundwater dose screening criteria were identified, excavated and removed. All excavations were characterized and backfilled with "clean" fill prior to performing FSS. In the area where remediation occurred, the ground area is comprised of barren dirt with no vegetation, and the soils have been graded

relatively flat to the corresponding elevation of the survey units to the north. The majority of the survey unit to the southeast is relatively untouched and is comprised of mostly of rock outcroppings, rock ledge, underbrush and trees.

Health Physics TSD BCY-HP-0078, "*ALARA Evaluation of Soil Remediation in Support of Final Status Survey,*" determined that remediation beyond that required to meet the release criteria is unnecessary and that the remaining residual radioactivity in soil was ALARA.

10. CHANGES FROM THE FINAL STATUS SURVEY PLAN

An addendum to the FSS plan was initiated on November 29, 2006 to implement the acquisition of additional soil samples necessary to adequately bound two areas of elevated activity identified by the investigative sample results.

Addendum 2 to the FSS plan was initiated on December 20, 2006 to implement the acquisition of five (5) additional bounding samples to further refine the dimensions and orientation of the elevated areas.

Additional evaluation to account for the presence of Sr-90 was performed on all soil samples as a consequence of the results from the initial samples selected for HTD analyses. This was to ensure that the dose consequence from the possible presence of Sr-90 in the surface soils in this survey unit was adequately addressed.

Two (2) additional samples were selected for HTD analysis as part of the bounding effort detailed in Addendum 1 to the FSS plan. C-14 was positively identified (i.e. a result greater than two (2) standard deviations uncertainty) in one (1) of the two (2) additional soil samples selected. As a result, the Operational DCGL for Cs-137 was adjusted as a surrogate to account for the possible presence of C-14 in the surface soils in this survey unit and to ensure that the resultant dose consequences were adequately addressed.

11. DATA QUALITY ASSESSMENT (DQA)

The DQO sample design and data were reviewed in accordance with Procedure RPM 5.1-23, *"Data Quality Assessment,"* for completeness and consistency. The sampling design had adequate power as indicated by the Retrospective Power Curve. The Sign Test was performed on the data and compared to the original assumptions of the DQOs. The evaluation of the Sign Test results demonstrates that the survey unit passes the unrestricted release criteria, thus, the null hypothesis is rejected.

Documentation was complete and legible. Surveys and sample collection were consistent with the DQOs and were sufficient to ensure that the survey unit was properly designated as Class 1.

The preliminary data review consisted of calculating basic statistical quantities (e.g., mean, median, standard deviation). The mean and median values are well below the Operational DCGL. Also, the retrospective power curve shows that a sufficient number of samples were collected to achieve the desired power.

Therefore, the survey unit meets the unrestricted release criteria with adequate power as required by the DQOs. The basic statistical quantities for the statistical sample population are provided below in Table 22.

Table 22 – Basic Statistical Quantities for Cs-137, Co-60 and Sr-90 from the Final Status Survey

	Cs-137 (1) pCi/g	Co-60 pCi/g	Sr-90 pCi/g
$DCGL_{op}$:	5.27E+00	2.59E+00	1.05E+00
Minimum Value:	6.19E-02	-9.75E-03	-3.32E-02
Maximum Value:	1.93E+00	1.62E-01	1.24E-01
Mean:	6.83E-01	2.88E-02	3.33E-02
Median:	6.72E-01	2.32E-02	2.51E-02
Standard Deviation:	5.12E-01	4.09E-02	4.45E-02

(1) The Operational DCGL for Cs-137 has been adjusted to 5.27 pCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

The range of the data, about three (3) to four (4) standard deviations for all three (3) radionuclides, was not a particularly large variation. The difference between the mean and median was about 2% to 18% of the standard deviation which indicates some skewness in the data. The data was represented graphically through posting plots, a frequency plot, and a quantile plot. The frequency plot indicates a slight positive skewness as confirmed by the calculated skew of 0.90, 2.45 and 0.81 for Cs-137, Co-60 and Sr-90 respectively.

The survey unit had two (2) areas exhibiting elevated activity, which were evaluated using the unity EMC test. This resulted in a passing value of 0.817, which is below unity.

All data, assessments, and graphical representations are provided in Attachment 4.

12. ANOMALIES

Seventy-four (74) scan strips were initially established in this survey unit. Scan strips designated as #1 through #17 and #23 through #32 were initially established on the far western portion of the survey unit by initial GPS mapping. While performing the scan survey, supporting GPS measurements revealed that the initial GPS measurements were incorrect. Subsequently, scan surveys of scan strips initially designated as #1 through #17 and #23 through #32, as well as investigative soil samples designated as #17 through #23 for Survey Unit 9522-0002 were removed from this survey unit and included in adjacent land Survey Unit 9522-0003.

13. CONCLUSION

Survey Unit 9522-0002 has met the final DQOs of the FSS plan. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved.

An EMC calculation was performed for two (2) areas of elevated activity in accordance with LTP Section 5.8.3 and Equation 6 of this report. The results indicated that the area was less than unity. No further action is warranted. See Tables 17 through 20 of this report for specific information with regard to the EMC calculation.

All identified radionuclides of concern were used for statistical testing to determine the adequacy of the survey unit for FSS.

The sample data passed the Sign Test. The null hypothesis was rejected. The Retrospective Power Curve generated using COMPASS shows adequate power was achieved. The survey unit is properly designated as Class 1.

The dose contribution from soil is 2.94 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024); therefore the dose contribution from existing groundwater is bounded at two (2) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no underground structures, systems or components containing residual radioactive material within the groundwater saturated zone in the area (reference CY memo ISC 06-024); therefore, the dose contribution from future groundwater is zero (0) mrem/yr TEDE.

The average total dose from residual radioactivity in this survey unit, including exposures from the three (3) components as described in Section 3, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity, will not exceed 4.94 mrem/yr TEDE. Therefore, Survey Unit 9522-0002 is acceptable for unrestricted release.

14. ATTACHMENTS

14.1 Attachment 1 – Figures

14.2 Attachment 2 – Scan Results

14.3 Attachment 3 – Laboratory Results

14.4 Attachment 4 – DQA Results

ATTACHMENT 1 (FIGURES)

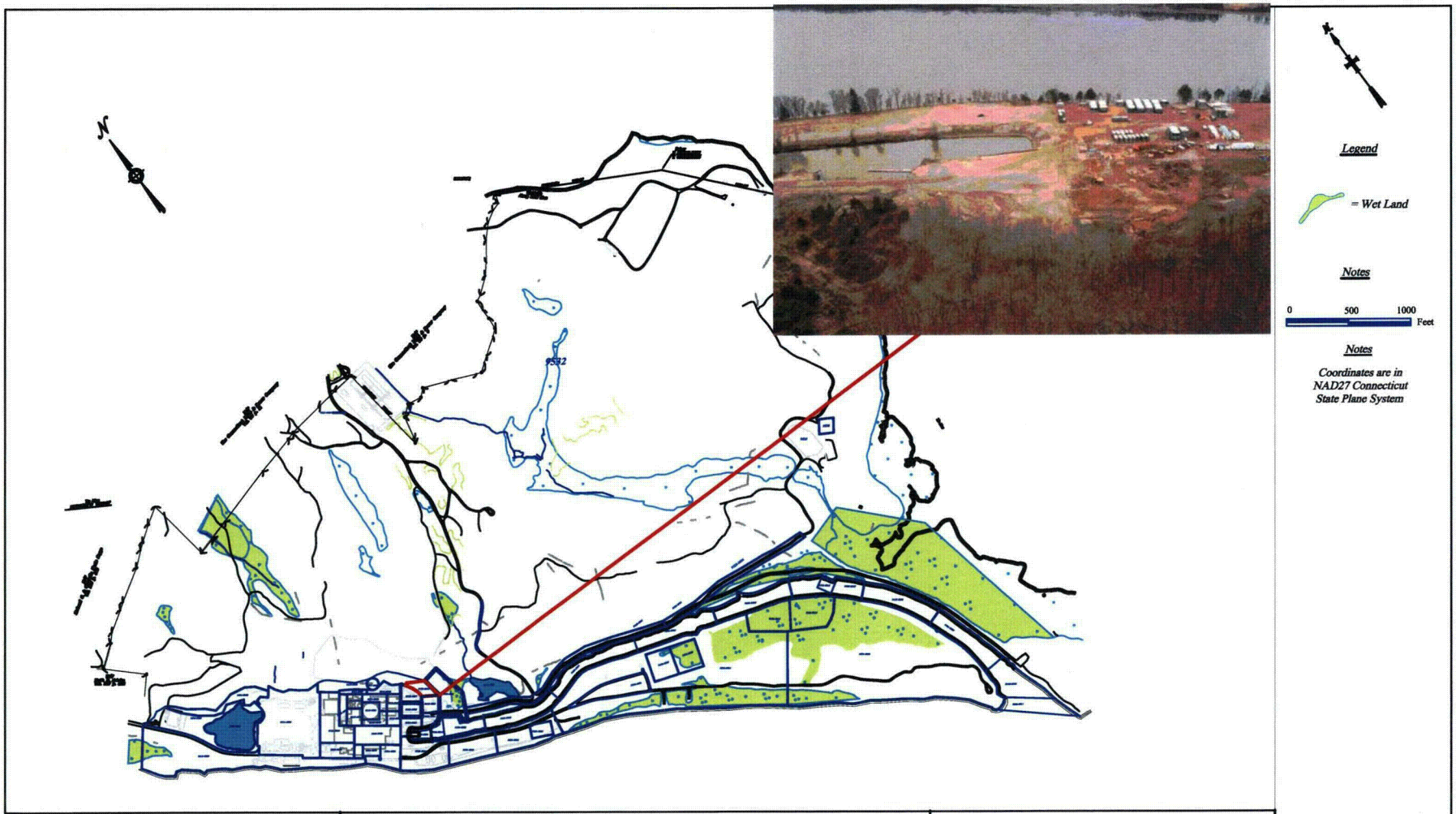

Figure 1	*Connecticut Yankee Atomic Power Company* *Survey Unit 9522-0002*	*Date: January 2007* *Revision: 0*

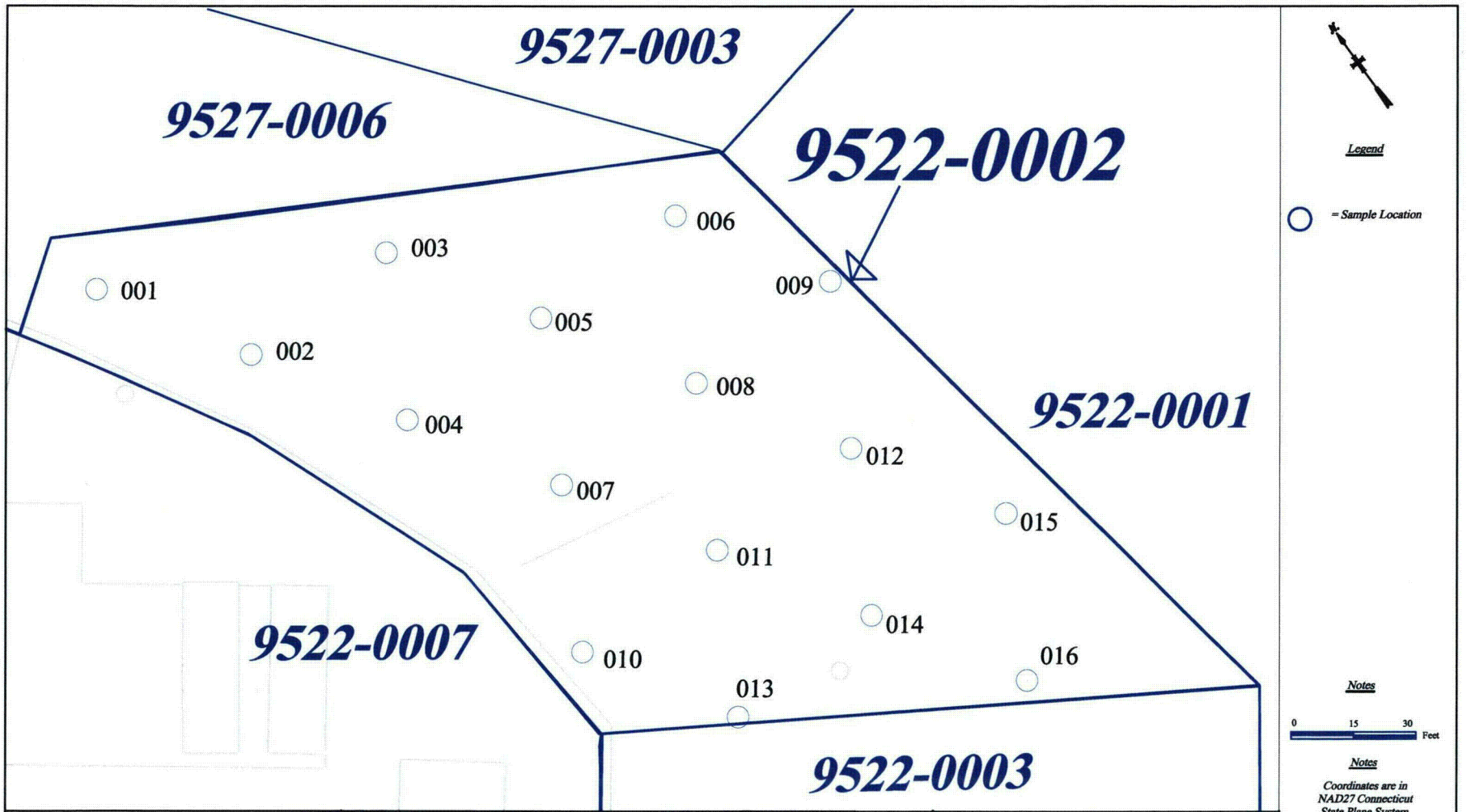

Figure 2	*Connecticut Yankee Atomic Power Company* *Sample Location Map for Survey Unit 9522-0002*	*Date: January 2007* *Revision: 0*

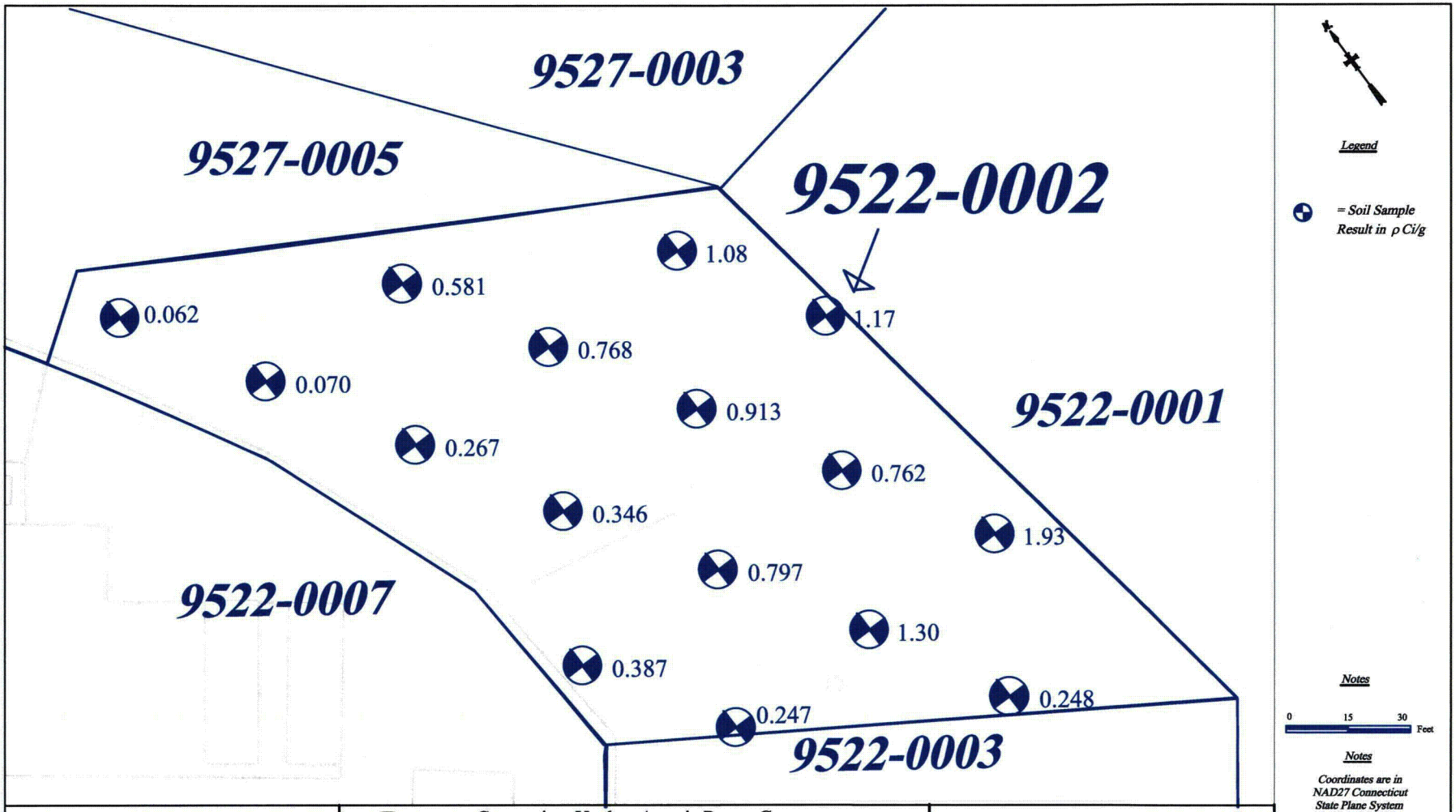

Figure 3	*Connecticut Yankee Atomic Power Company* *Final Status Survey Unit 9522-0002* *Cesium-137 Posting Plot*	*Date: January 2007* *Revision: 0*

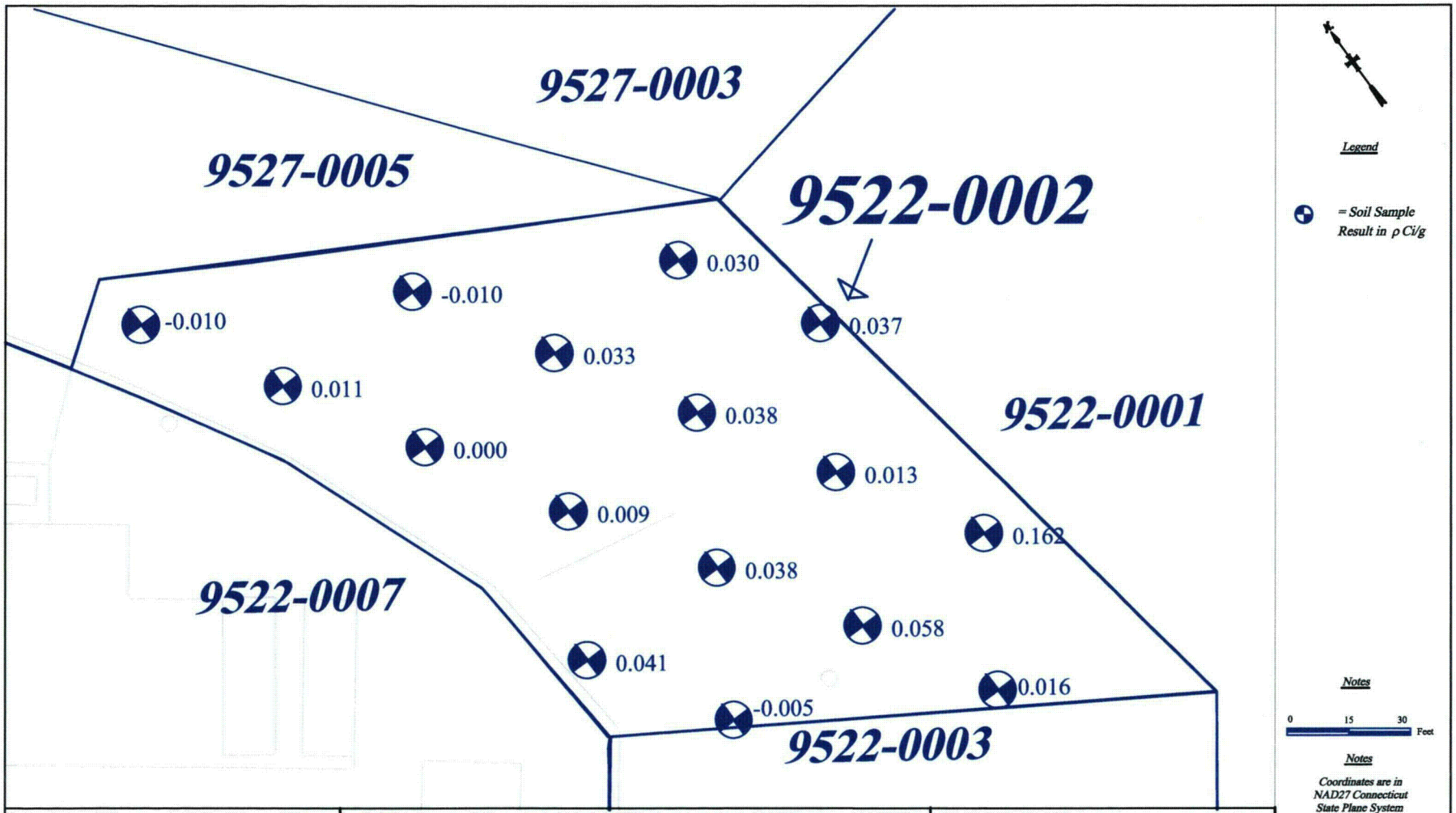

Figure 4	Connecticut Yankee Atomic Power Company Final Status Survey Unit 9522-0002 Cobalt-60 Posting Plot	Date: January 2007 Revision: 0

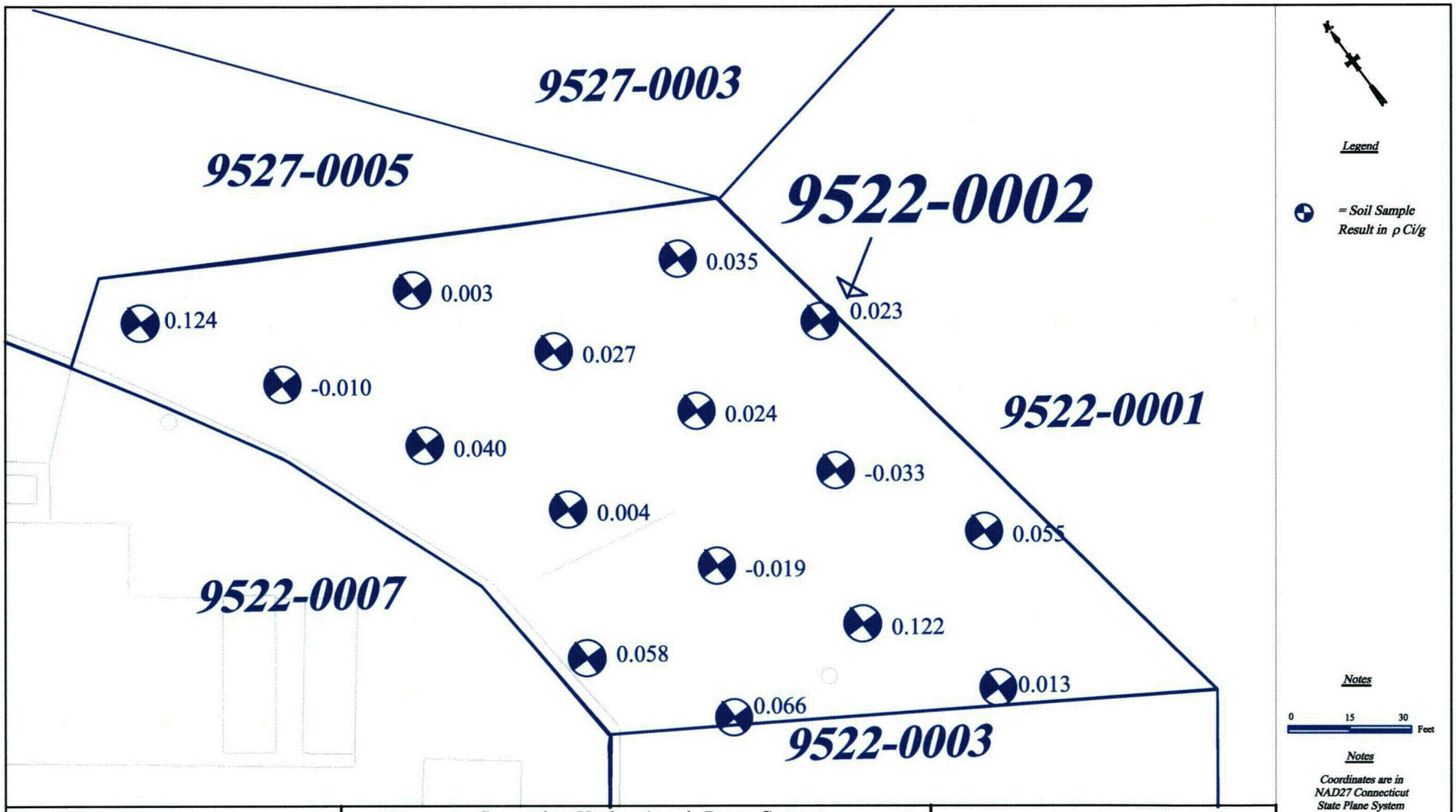

Figure 5	*Connecticut Yankee Atomic Power Company* *Final Status Survey Unit 9522-0002* *Strontium-90 Posting Plot*	*Date: January 2007* *Revision: 0*

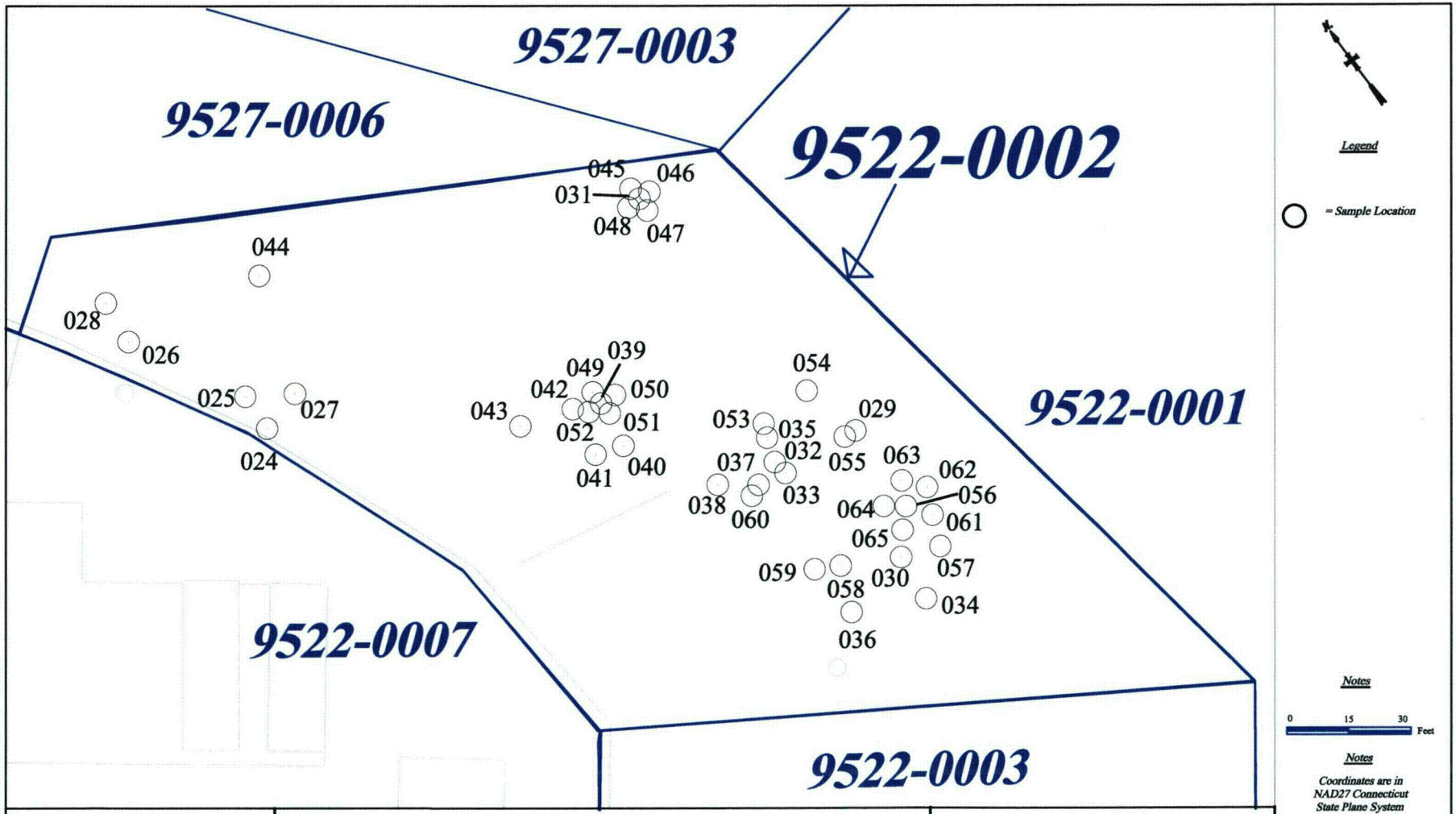

Figure 6	*Connecticut Yankee Atomic Power Company* *Investigative Sample Location Map for Survey Unit 9522-0002*	*Date: January 2007* *Revision: 0*

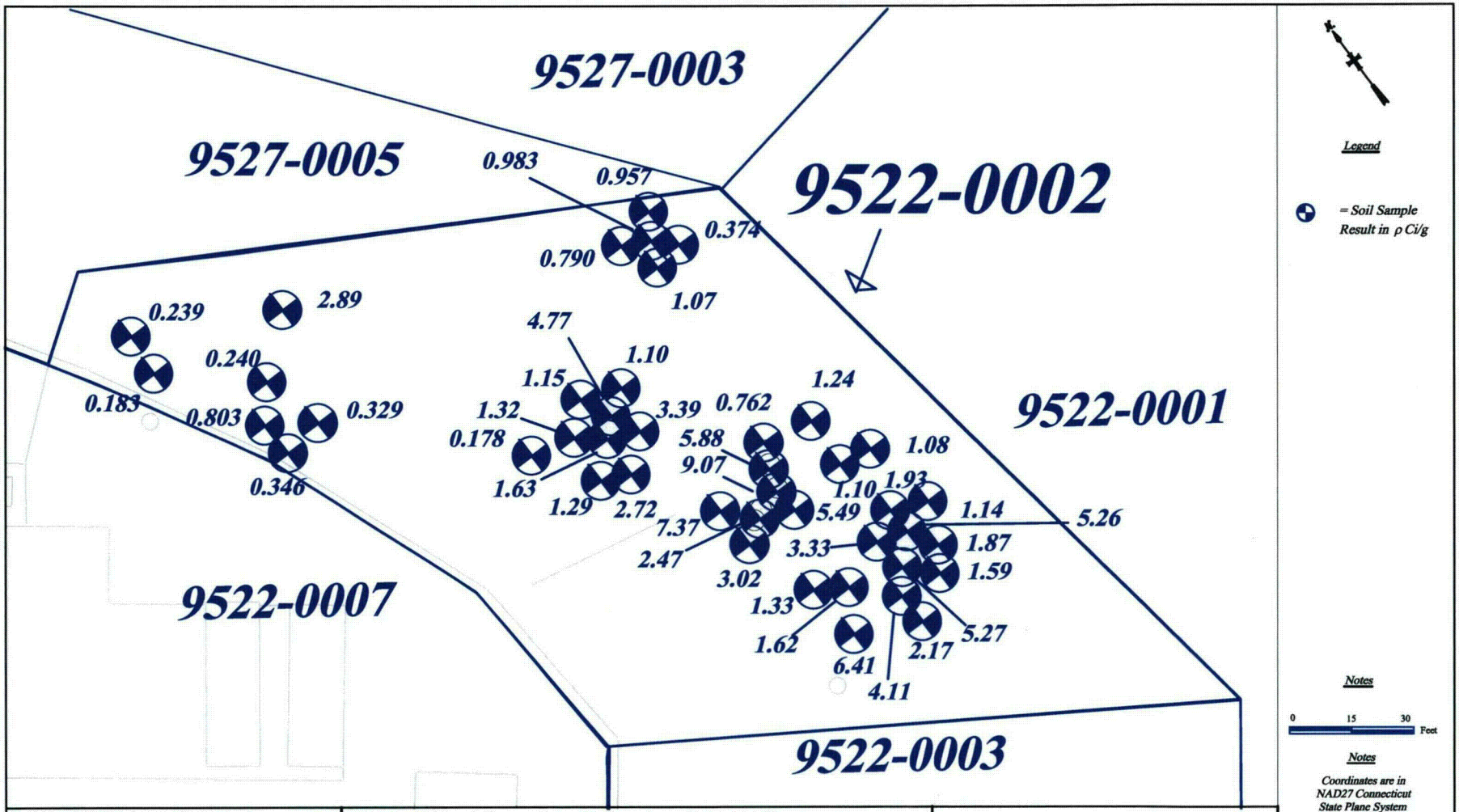

Figure 7	Connecticut Yankee Atomic Power Company Final Status Survey Unit 9522-0002 Investigative Sample Cesium-137 Posting Plot	Date: January 2007 Revision: 0

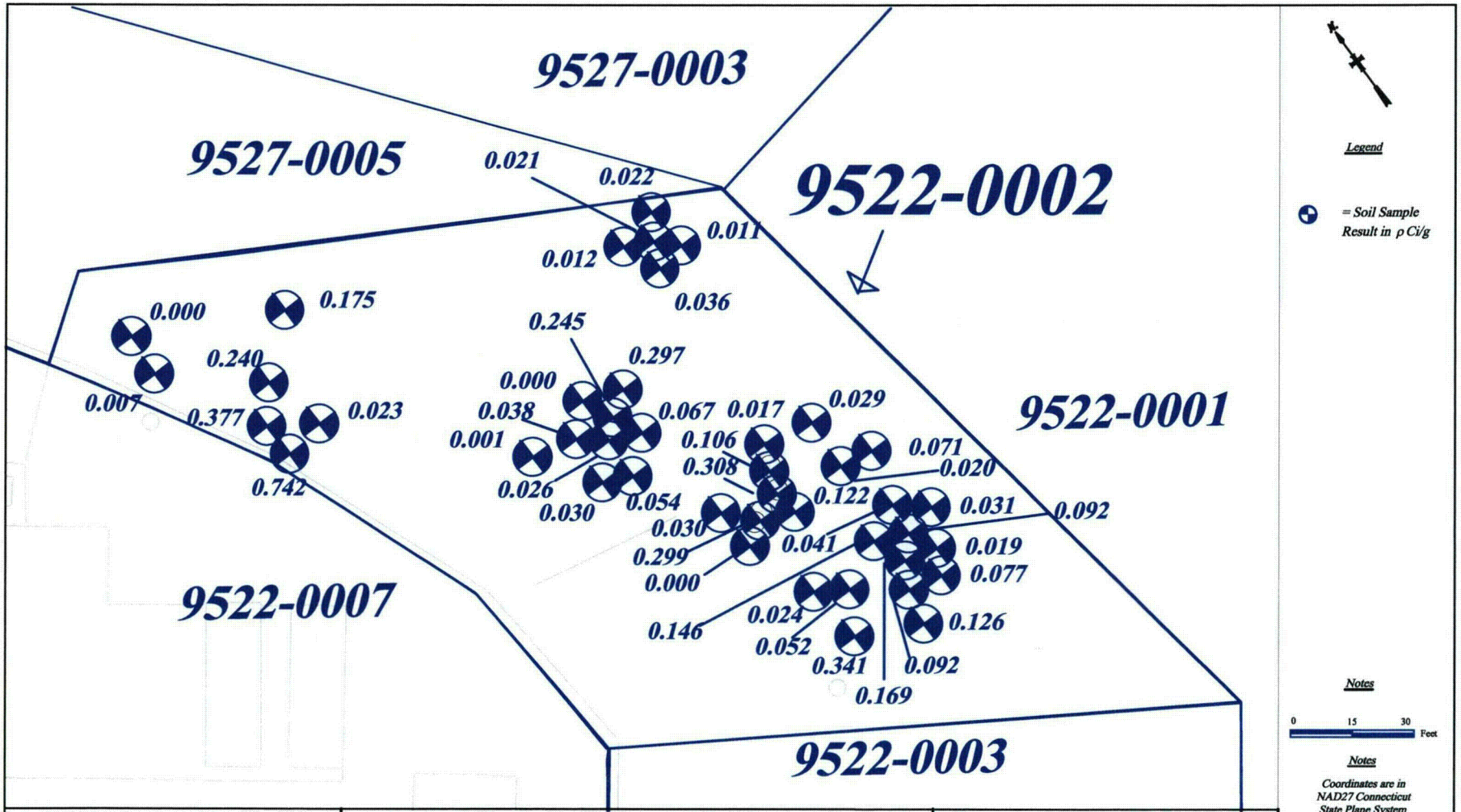

Figure 8	Connecticut Yankee Atomic Power Company Final Status Survey Unit 9522-0002 Investigative Sample Cobalt-60 Posting Plot	Date: January 2007 Revision: 0

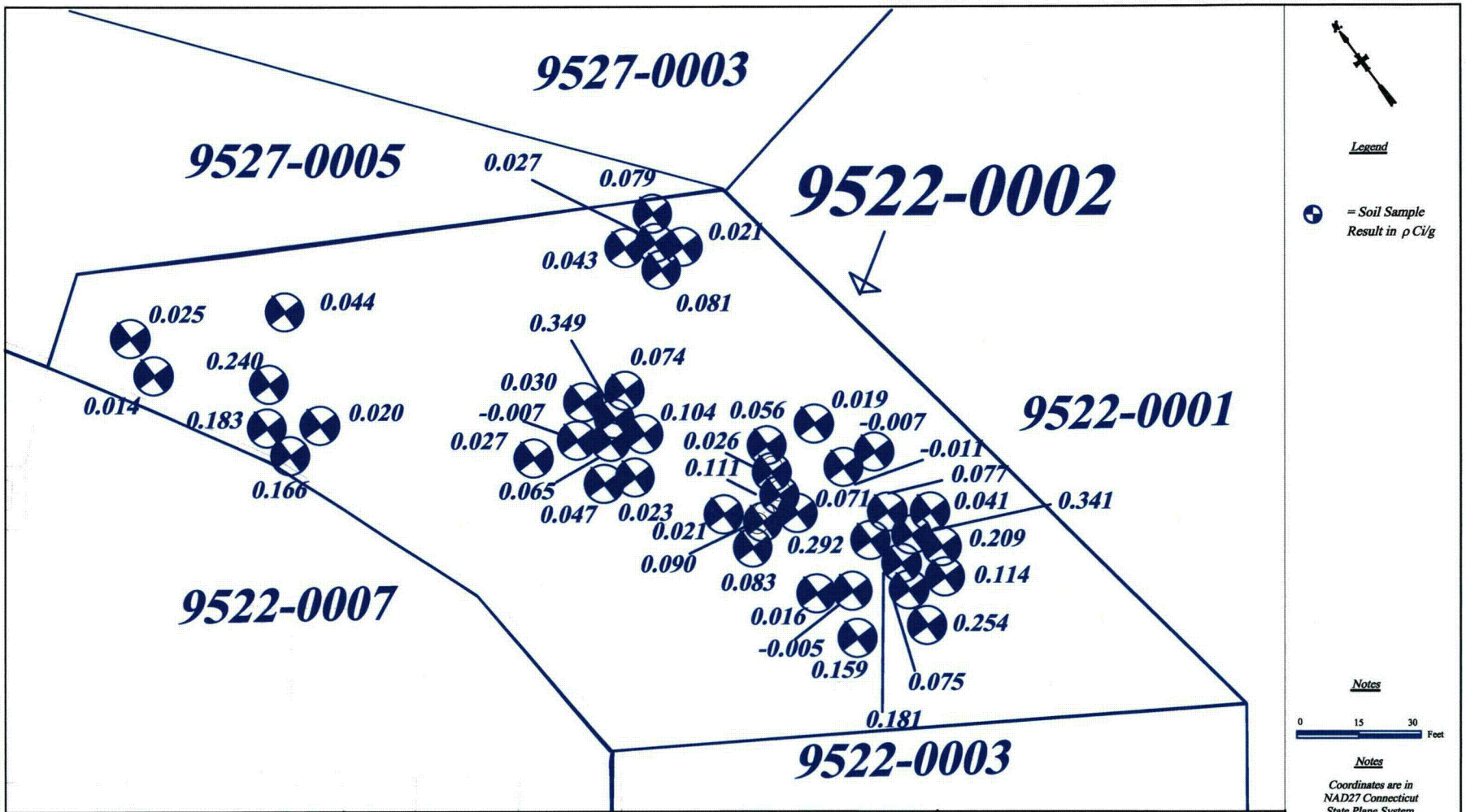

Figure 9	Connecticut Yankee Atomic Power Company Final Status Survey Unit 9522-0002 Investigative Sample Strontium-90 Posting Plot	Date: January 2007	
		Revision: 0	

ATTACHMENT 2 (SCAN RESULTS)

SCAN RESULTS @ SAMPLE LOCATIONS

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-02-BL-00-01-0	10/30/2006	9:12:00	1.04E+04			1111	1004
9522-02-SL-00-01-0	10/30/2006	9:13:00	1.09E+04	1.19E+04		1111	1004
9522-02-BL-00-02-0	10/30/2006	8:56:00	8.86E+03			1111	1004
9522-02-SL-00-02-0	10/30/2006	8:57:00	9.47E+03	1.02E+04		1111	1004
9522-02-BL-00-03-0	10/30/2006	9:16:00	9.20E+03			1111	1004
9522-02-SL-00-03-0	10/30/2006	9:18:00	9.87E+03	1.06E+04		1111	1004
9522-02-BL-00-04-0	10/30/2006	8:40:00	9.61E+03			1111	1004
9522-02-SL-00-04-0	10/30/2006	8:41:00	1.01E+04	1.10E+04		1111	1004
9522-02-BL-00-05-0	10/30/2006	11:12:00	8.74E+03			1111	1004
9522-02-SL-00-05-0	10/30/2006	11:13:00	1.04E+04	1.01E+04	+	1111	1004
9522-02-BL-00-06-0	10/30/2006	11:19:00	8.80E+03			1111	1004
9522-02-SL-00-06-0	10/30/2006	11:20:00	8.96E+03	1.01E+04		1111	1004
9522-02-BL-00-07-0	10/30/2006	10:44:00	1.01E+04			1111	1004
9522-02-SL-00-07-0	10/30/2006	10:46:00	9.86E+03	1.15E+04		1111	1004
9522-02-BL-00-08-0	10/30/2006	11:30:00	8.02E+03			1111	1004
9522-02-SL-00-08-0	10/30/2006	11:31:00	9.36E+03	9.30E+03	+	1111	1004
9522-02-BL-00-09-0	10/30/2006	11:33:00	7.89E+03			1111	1004
9522-02-SL-00-09-0	10/30/2006	11:34:00	9.65E+03	9.16E+03	+	1111	1004
9522-02-BL-00-10-0	10/30/2006	11:49:00	8.77E+03			1111	1004
9522-02-SL-00-10-0	10/30/2006	11:50:00	9.98E+03	1.01E+04		1111	1004
9522-02-BL-00-11-0	10/30/2006	14:17:00	8.18E+03			1111	1004
9522-02-SL-00-11-0	10/30/2006	14:19:00	7.81E+03	9.47E+03		1111	1004
9522-02-BL-00-12-0	10/30/2006	14:38:00	9.86E+03			1111	1004
9522-02-SL-00-12-0	10/30/2006	14:39:00	8.66E+03	1.13E+04		1111	1004
9522-02-BL-00-13-0	10/30/2006	12:00:00	8.73E+03			1111	1004
9522-02-SL-00-13-0	10/30/2006	12:02:00	1.01E+04	1.01E+04	+	1111	1004
9522-02-BL-00-14-0	10/30/2006	14:20:00	8.00E+03			1111	1004
9522-02-SL-00-14-0	10/30/2006	14:21:00	9.39E+03	9.28E+03	+	1111	1004
9522-02-BL-00-15-0	10/30/2006	14:56:00	8.69E+03			1111	1004
9522-02-SL-00-15-0	10/30/2006	14:57:00	8.86E+03	1.00E+04		1111	1004
9522-02-BL-00-16-0	10/30/2006	14:22:00	8.10E+03			1111	1004
9522-02-SL-00-16-0	10/30/2006	14:23:00	9.61E+03	9.39E+03	+	1111	1004

SCAN RESULTS FOR SCAN STRIPS

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-02-BC-00-18-0	10/27/2006	7:49:00	8.80E+03			1111	1004
9522-02-SC-00-18-0	10/27/2006	7:50:00	8.90E+03	1.01E+04		1111	1004
9522-02-BC-00-19-0	10/27/2006	7:51:00	8.95E+03			1111	1004
9522-02-SC-00-19-0	10/27/2006	7:52:00	9.15E+03	1.03E+04		1111	1004
9522-02-BC-00-20-0	10/27/2006	7:53:00	9.18E+03			1111	1004
9522-02-SC-00-20-0	10/27/2006	7:56:00	8.72E+03	1.05E+04		1111	1004
9522-02-ER-00-20-1	10/27/2006	13:32:00	1.02E+04	1.05E+04		1111	1004
9522-02-BC-00-21-0	10/27/2006	7:57:00	9.15E+03			1111	1004
9522-02-SC-00-21-0	10/27/2006	8:00:00	9.65E+03	1.05E+04		1111	1004
9522-02-ER-00-21-1	10/27/2006	13:52:00	1.06E+04	1.05E+04	+	1111	1004
9522-02-ER-00-21-2	10/27/2006	13:52:00	1.08E+04	1.05E+04	+	1111	1004
9522-02-BC-00-22-0	10/27/2006	8:01:00	9.88E+03			1111	1004
9522-02-SC-00-22-0	10/27/2006	8:07:00	8.52E+03	1.13E+04		1111	1004
9522-02-ER-00-22-1	10/27/2006	13:53:00	1.04E+04	1.13E+04		1111	1004
9522-02-ER-00-22-2	10/27/2006	13:54:00	1.10E+04	1.13E+04		1111	1004
9522-02-BC-00-33-0	11/1/2006	9:47:00	8.21E+03			1112	1013
9522-02-SC-00-33-0	11/1/2006	9:52:00	8.66E+03	9.50E+03		1112	1013
9522-02-BC-00-34-0	11/1/2006	9:52:00	8.66E+03			1112	1013
9522-02-SC-00-34-0	11/1/2006	9:56:00	8.65E+03	9.99E+03		1112	1013
9522-02-BC-00-35-0	11/1/2006	9:58:00	8.63E+03			1112	1013
9522-02-SC-00-35-0	11/1/2006	10:02:00	8.23E+03	9.96E+03		1112	1013
9522-02-BC-00-36-0	11/1/2006	10:03:00	8.74E+03			1112	1013
9522-02-SC-00-36-0	11/1/2006	10:08:00	8.74E+03	1.01E+04		1112	1013
9522-02-BC-00-37-0	11/1/2006	10:09:00	8.84E+03			1112	1013
9522-02-SC-00-37-0	11/1/2006	10:13:00	8.35E+03	1.02E+04		1112	1013
9522-02-ER-00-37-1	11/2/2006	13:30:00	8.40E+03	1.02E+04		1013	1112
9522-02-BC-00-38-0	11/1/2006	10:16:00	8.80E+03			1112	1013
9522-02-SC-00-38-0	11/1/2006	10:21:00	8.69E+03	1.01E+04		1112	1013
9522-02-ER-00-38-1	11/2/2006	13:08:00	1.01E+04	1.01E+04		1013	1112
9522-02-BC-00-39-0	11/1/2006	10:22:00	8.75E+03			1112	1013
9522-02-SC-00-39-0	11/1/2006	10:28:00	9.41E+03	1.01E+04		1112	1013
9522-02-ER-00-39-1	11/2/2006	13:31:00	9.35E+03	1.01E+04		1013	1112
9522-02-BC-00-40-0	11/1/2006	10:31:00	9.81E+03			1112	1013
9522-02-SC-00-40-0	11/1/2006	10:37:00	8.68E+03	1.12E+04		1112	1013
9522-02-BC-00-41-0	11/1/2006	10:38:00	8.82E+03			1112	1013
9522-02-SC-00-41-0	11/1/2006	10:47:00	9.91E+03	1.02E+04		1112	1013
9522-02-ER-00-41-1	11/2/2006	13:29:00	1.13E+04	1.02E+04	+	1013	1112
9522-02-ER-00-41-2	11/2/2006	13:09:00	9.49E+03	1.02E+04		1013	1112
9522-02-ER-00-41-3	11/2/2006	13:07:00	9.76E+03	1.02E+04		1013	1112
9522-02-BC-00-42-0	11/1/2006	10:48:00	9.74E+03			1112	1013
9522-02-SC-00-42-0	11/1/2006	11:15:00	8.38E+03	1.11E+04		1112	1013
9522-02-ER-00-42-1	11/2/2006	13:10:00	1.10E+04	1.11E+04		1013	1112
9522-02-ER-00-42-2	11/2/2006	11:02:00	1.04E+04	1.11E+04		1013	1112

RELEASE RECORD
Attachment 2

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-02-BC-00-43-0	11/1/2006	11:16:00	8.47E+03			1112	1013
9522-02-SC-00-43-0	11/1/2006	11:22:00	8.65E+03	9.78E+03		1112	1013
9522-02-ER-00-43-1	11/2/2006	11:00:00	1.04E+04	9.78E+03	+	1013	1112
9522-02-BC-00-44-0	11/1/2006	13:08:00	8.93E+03			1112	1013
9522-02-SC-00-44-0	11/1/2006	13:12:00	8.16E+03	1.03E+04		1112	1013
9522-02-BC-00-45-0	11/1/2006	13:13:00	8.36E+03			1112	1013
9522-02-SC-00-45-0	11/1/2006	13:19:00	8.86E+03	9.67E+03		1112	1013
9522-02-ER-00-45-1	11/2/2006	10:58:00	1.08E+04	9.67E+03	+	1013	1112
9522-02-BC-00-46-0	11/1/2006	13:22:00	8.54E+03			1112	1013
9522-02-SC-00-46-0	11/1/2006	13:27:00	8.01E+03	9.86E+03		1112	1013
9522-02-ER-00-46-1	11/2/2006	10:34:00	1.05E+04	9.86E+03	+	1013	1112
9522-02-BC-00-47-0	11/1/2006	13:28:00	8.35E+03			1112	1013
9522-02-SC-00-47-0	11/1/2006	13:31:00	8.25E+03	9.65E+03		1112	1013
9522-02-ER-00-47-1	11/2/2006	10:57:00	1.03E+04	9.65E+03	+	1013	1112
9522-02-BC-00-48-0	11/1/2006	13:33:00	8.68E+03			1112	1013
9522-02-SC-00-48-0	11/1/2006	13:36:00	7.98E+03	1.00E+04		1112	1013
9522-02-BC-00-49-0	11/1/2006	13:41:00	8.40E+03			1112	1013
9522-02-SC-00-49-0	11/1/2006	13:43:00	8.41E+03	9.71E+03		1112	1013
9522-02-BC-00-50-0	11/1/2006	13:45:00	7.31E+03			1112	1013
9522-02-SC-00-50-0	11/1/2006	13:49:00	8.14E+03	8.53E+03		1112	1013
9522-02-ER-00-50-2	11/2/2006	10:32:00	9.51E+03	8.53E+03	+	1013	1112
9522-02-ER-00-50-1	11/2/2006	10:33:00	9.19E+03	8.53E+03	+	1013	1112
9522-02-BC-00-51-0	11/1/2006	13:49:00	9.19E+03			1112	1013
9522-02-SC-00-51-0	11/1/2006	13:51:00	7.87E+03	1.06E+04		1112	1013
9522-02-BC-00-52-0	11/1/2006	13:52:00	8.88E+03			1112	1013
9522-02-SC-00-52-0	11/1/2006	13:54:00	9.01E+03	1.02E+04		1112	1013
9522-02-BC-00-53-0	11/1/2006	13:54:00	7.97E+03			1112	1013
9522-02-SC-00-53-0	11/1/2006	13:57:00	8.88E+03	9.24E+03		1112	1013
9522-02-BC-00-54-0	11/1/2006	13:57:00	8.41E+03			1112	1013
9522-02-SC-00-54-0	11/1/2006	14:03:00	8.61E+03	9.72E+03		1112	1013
9522-02-BC-00-55-0	11/1/2006	14:03:00	8.71E+03			1112	1013
9522-02-SC-00-55-0	11/1/2006	14:06:00	8.32E+03	1.00E+04		1112	1013
9522-02-BC-00-56-0	11/1/2006	14:11:00	7.08E+03			1112	1013
9522-02-SC-00-56-0	11/1/2006	14:13:00	7.97E+03	8.28E+03		1112	1013
9522-02-BC-00-57-0	11/1/2006	14:14:00	8.53E+03			1112	1013
9522-02-SC-00-57-0	11/1/2006	14:17:00	7.38E+03	9.85E+03		1112	1013
9522-02-ER-00-57-1	11/2/2006	10:30:00	9.22E+03	9.85E+03		1013	1112
9522-02-BC-00-58-0	11/1/2006	14:18:00	9.00E+03			1112	1013
9522-02-SC-00-58-0	11/1/2006	14:20:00	7.69E+03	1.04E+04		1112	1013
9522-02-BC-00-59-0	11/1/2006	14:21:00	9.10E+03			1112	1013
9522-02-SC-00-59-0	11/1/2006	14:22:00	7.22E+03	1.05E+04		1112	1013
9522-02-BC-00-60-0	11/3/2006	8:18:00	9.04E+03			1112	1013
9522-02-SC-00-60-0	11/3/2006	8:21:00	9.25E+03	1.04E+04		1112	1013
9522-02-BC-00-61-0	11/3/2006	8:21:00	8.26E+03			1112	1013
9522-02-SC-00-61-0	11/3/2006	8:24:00	8.66E+03	9.56E+03		1112	1013

RELEASE RECORD
Attachment 2

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-02-BC-00-62-0	11/3/2006	8:25:00	8.03E+03			1112	1013
9522-02-SC-00-62-0	11/3/2006	8:27:00	8.72E+03	9.31E+03		1112	1013
9522-02-BC-00-63-0	11/3/2006	8:27:00	9.53E+03			1112	1013
9522-02-SC-00-63-0	11/3/2006	8:29:00	8.14E+03	1.09E+04		1112	1013
9522-02-BC-00-64-0	11/3/2006	8:31:00	9.10E+03			1112	1013
9522-02-SC-00-64-0	11/3/2006	8:32:00	8.66E+03	1.05E+04		1112	1013
9522-02-BC-00-65-0	11/3/2006	8:33:00	8.18E+03			1112	1013
9522-02-SC-00-65-0	11/3/2006	8:35:00	8.10E+03	9.47E+03		1112	1013
9522-02-ER-00-65-1	11/3/2006	9:38:00	1.05E+04	9.47E+03	+	1112	1013
9522-02-BC-00-66-0	11/3/2006	8:35:00	8.53E+03			1112	1013
9522-02-SC-00-66-0	11/3/2006	8:36:00	8.59E+03	9.85E+03		1112	1013
9522-02-BC-00-67-0	11/3/2006	8:37:00	8.66E+03			1112	1013
9522-02-SC-00-67-0	11/3/2006	8:38:00	8.21E+03	9.99E+03		1112	1013
9522-02-BC-00-68-0	11/6/2006	14:08:00	7.74E+03			1112	1013
9522-02-SC-00-68-0	11/6/2006	14:10:00	7.95E+03	9.00E+03		1112	1013
9522-02-BC-00-69-0	11/6/2006	14:10:00	7.35E+03			1112	1013
9522-02-SC-00-69-0	11/6/2006	14:11:00	7.11E+03	8.57E+03		1112	1013
9522-02-BC-00-70-0	11/6/2006	14:12:00	8.30E+03			1112	1013
9522-02-SC-00-70-0	11/6/2006	14:12:00	8.49E+03	9.60E+03		1112	1013
9522-02-BC-00-71-0	11/6/2006	14:13:00	7.40E+03			1112	1013
9522-02-SC-00-71-0	11/6/2006	14:14:00	8.04E+03	8.63E+03		1112	1013
9522-02-BC-00-72-0	11/6/2006	14:15:00	7.90E+03			1112	1013
9522-02-SC-00-72-0	11/6/2006	14:16:00	7.77E+03	9.17E+03		1112	1013
9522-02-BC-00-73-0	11/7/2006	8:00:00	8.25E+03			1112	1013
9522-02-SC-00-73-0	11/7/2006	8:07:00	7.81E+03	9.55E+03		1112	1013
9522-02-BC-00-74-0	11/7/2006	8:05:00	7.52E+03			1112	1013
9522-02-SC-00-74-0	11/7/2006	8:11:00	8.00E+03	8.76E+03		1112	1013

ATTACHMENT 3 (LABORATORY DATA)

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 175906 and 175908
SDG: MSR#06-1460

November 17, 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 November 10, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
175906001	9522-0002-001F
175906002	9522-0002-004F
175906003	9522-0002-001F
175906004	9522-0002-004F
175908001	9522-0002-002F
175908002	9522-0002-003F
175908003	9522-0002-005F
175908004	9522-0002-006F
175908005	9522-0002-007F
175908006	9522-0002-007FS
175908007	9522-0002-008F
175908008	9522-0002-009F
175908009	9522-0002-010F

175908010	9522-0002-013F
175908011	9522-0002-011F
175908012	9522-0002-014F
175908013	9522-0002-016F
175908014	9522-0002-012F
175908015	9522-0002-015F
175908016	9522-0002-043F
175908017	9522-0002-042F
175908018	9522-0002-041F
175908019	9522-0002-039F
175908020	9522-0002-040F
175908021	9522-0002-038F
175908022	9522-0002-037F
175908023	9522-0002-036F
175908024	9522-0002-030F
175908025	9522-0002-033F
175908026	9522-0002-034F
175908027	9522-0002-035F
175908028	9522-0002-032F
175908029	9522-0002-029F
175908030	9522-0002-031F
175908031	9522-0002-044F
175908032	9522-0002-024F
175908033	9522-0002-025F
175908034	9522-0002-026F
175908035	9522-0002-027F
175908036	9522-0002-028F

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 contained in the analytical case narratives in the enclosed data package.

Analytical Request

Thirty-six soil samples were analyzed for FSSGAM. Two soil samples were analyzed for FSSALL.

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 17 November 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

Chain of Custody Form

No. 2006-00647

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:

175906 % - FSS ALL
175908 % - ~~FSSGAB~~ FSSGAM only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-001F	10/30/06	0813	TS	G	BP		X						
9522-0002-002F	10/30/06	0757	TS	G	BP	X							
9522-0002-003F	10/30/06	0817	TS	G	BP	X							
9522-0002-004F	10/30/06	0741	TS	G	BP		X						
9522-0002-005F	10/30/06	1013	TS	G	BP	X							
9522-0002-006F	10/30/06	1020	TS	G	BP	X							
9522-0002-007F	10/30/06	0945	TS	G	BP	X							
9522-0002-007FS	10/30/06	0945	TS	G	BP	X							
9522-0002-008F	10/30/06	1031	TS	G	BP	X							
9522-0002-009F	10/30/06	1035	TS	G	BP	X							
9522-0002-010F	10/30/06	1051	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3689 8327 ~~1624~~
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) 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. 2006-00648

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 1759081

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-013F	10/30/06	1100	TS	G	BP	X							
9522-0002-011F	10/30/06	1322	TS	G	BP	X							
9522-0002-014F	10/30/06	1325	TS	G	BP	X							
9522-0002-016F	10/30/06	1328	TS	G	BP	X							
9522-0002-012F	10/30/06	1340	TS	G	BP	X							
9522-0002-015F	10/30/06	1400	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1464~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3589 ~~1644~~ 8327
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00654

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
1759081

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-044F	11/03/06	0938	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3889 ~~4694~~ 8327
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
John J. Smith	11/8/06 1500	Tom Sikes	11-9-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00652

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 1759081.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-043F	11/2/06	1032	TS	G	BP	X							
9522-0002-042F	11/2/06	1033	TS	G	BP	X							
9522-0002-041F	11/2/06	1034	TS	G	BP	X							
9522-0002-039F	11/2/06	1035	TS	G	BP	X							
9522-0002-040F	11/2/06	1058	TS	G	BP	X							
9522-0002-038F	11/2/06	1036	TS	G	BP	X							
9522-0002-037F	11/2/06	1037	TS	G	BP	X							
9522-0002-036F	11/2/06	1038	TS	G	BP	X							
9522-0002-030F	11/2/06	1309	TS	G	BP	X							
9522-0002-033F	11/2/06	1309	TS	G	BP	X							
9522-0002-034F	11/2/06	1308	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other 8350
7985 3879 ~~1683~~
Bill of Lading #

Internal Container Temp.: 19° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00653

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
175908'1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-035F	11/2/06	1311	TS	G	BP	X							
9522-0002-032F	11/2/06	1330	TS	G	BP	X							
9522-0002-029F	11/2/06	1332	TS	G	BP	X							
9522-0002-031F	11/2/06	1333	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other 8350 7485 3679 ~~4683~~ 1148
Bill of Lading #

Internal Container Temp.: 19 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature] Date/Time 11/8/06 1500
Date/Time 11-10-06 9:15
3) Relinquished By Date/Time
Date/Time

11

Chain of Custody Form

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

No. 2006-00661

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
1759081.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-024F	10/27/06	1334	TS	G	BP	X							
9522-0002-025F	10/27/06	1353	TS	G	BP	X							
9522-0002-026F	10/27/06	1354	TS	G	BP	X							
9522-0002-027F	10/27/06	1356	TS	G	BP	X							
9522-0002-028F	10/27/06	1354	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3889 8371
Bill of Lading #

Internal Container Temp.: 18° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	Tom Sides	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR #06-1460

Work Order Number: 175906, 175908

Shipping Container ID: 7985 3889 8327 Chain of Custody # 2006-00647, 2006-00618, 2006-00654

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 [ ] NA [✓]
6. Number of samples in shipping container: 18
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: Tim Sides Date: 11-10-06

Telephoned to: _____ On _____ By _____

80 CPM

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175906, 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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*: 80 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 CDJ Date: 11/13/06

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR # 06-1460

Work Order Number: ~~175906~~ 175908 cy 11/14/06

Shipping Container ID: 7985 3889 8350 Chain of Custody # 2006-00652, 2006-00653

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 19°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA [✓]
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: Tam Sida Date: 11-10-06

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 175908
Date Received: 11-10-06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: TS	

	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*: 60 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 [illegible] Date: 11/14/06

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15.

SDG#: MSR # 06-1460, MSR # 06-1461

Work Order Number: 175860, ~~175906~~ 175908. CAJ 11/14/06

Shipping Container ID: 7985 3889 8371 Chain of Custody # 2006-00601, 2006-00603

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°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape COC 2006-00601 ✓ hazard labels radioactive COC 2006-00603

____ 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): Times on the COC 2006-00603 are written on the cont. sheet.

Sample Custodian/Laboratory: Turner Sidy Date: 11-10-06

Telephoned to: ____ On ____ By ____

800pm

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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	Rad for COC 2006-00663 only			

	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*: 80 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 [illegible] Date: 11/14/06

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Client: Conn. Yankee **Date Received:** 11-10-06

Times on samples are as follows:

Sample ID	Date	Time
9527-0006-001	11-7-06	0811
9527-0006-002	11-7-06	0815
9527-0006-003	11-7-06	0813
9527-0006-004	11-7-06	0808
9527-0006-005	11-7-06	0814
9527-0006-006	11-7-06	0830

COC #2006-00163 only

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 175906

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:	587952
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228164	Method Blank (MB)
1201228165	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228166	175901001(9522-0003-006F) Matrix Spike (MS)
1201228167	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: 175901001 (9522-0003-006F).

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.

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-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:	587954
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228168	Method Blank (MB)
1201228169	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228170	175901001(9522-0003-006F) Matrix Spike (MS)
1201228171	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: 175901001 (9522-0003-006F).

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.

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-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:	587955
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228178	Method Blank (MB)
1201228179	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228180	175901001(9522-0003-006F) Matrix Spike (MS)
1201228181	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 volumes in this batch.

Designated QC
The following sample was used for QC: 175901001 (9522-0003-006F).

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 batch was recounted due to the quench number being outside 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:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	587668
Prep Batch Number:	587562

Sample ID	Client ID
175906003	9522-0002-001F
175906004	9522-0002-004F
1201227495	Method Blank (MB)
1201227496	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201227497	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: 175901001 (9522-0003-006F).

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
The sample and the duplicate, 1201227496 (9522-0003-006F) , did not meet the relative percent difference requirement for Cs-137, however they do meet the relative error ratio requirement with value of 2.36.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Lead-212	1201227495
UI	Data rejected due to low abundance.	Cesium-134	175906003
		Potassium-40	1201227495

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:	588008
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228310	Method Blank (MB)
1201228311	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228312	175901001(9522-0003-006F) Matrix Spike (MS)
1201228313	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 volume in this batch.

Designated QC
The following sample was used for QC: 175901001 (9522-0003-006F).

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. 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-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	587960

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228198	Method Blank (MB)
1201228199	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228200	175901001(9522-0003-006F) Matrix Spike (MS)
1201228201	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: 175901001 (9522-0003-006F).

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 1201228200 (9522-0003-006F) 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. 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 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:	587968
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228223	Method Blank (MB)
1201228224	175901002(9522-0003-016F) Sample Duplicate (DUP)
1201228225	175901002(9522-0003-016F) Matrix Spike (MS)
1201228226	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: 175901002 (9522-0003-016F).

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 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:	587973
Prep Batch Number:	587563
Dry Soil Prep GL-RAD-A-021 Batch Number:	587562

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228240	Method Blank (MB)
1201228241	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201228242	175901001(9522-0003-006F) Matrix Spike (MS)
1201228243	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: 175901001 (9522-0003-006F).

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:	**LSC, Tritium Dist, Solid-HTD2,ALL FSS**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	587978

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228256	Method Blank (MB)
1201228257	175906002(9522-0002-004F) Sample Duplicate (DUP)
1201228258	175906002(9522-0002-004F) Matrix Spike (MS)
1201228259	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: 175906002 (9522-0002-004F).

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.

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 All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	587976

Sample ID	Client ID
175906001	9522-0002-001F
175906002	9522-0002-004F
1201228248	Method Blank (MB)
1201228249	175906001(9522-0002-001F) Sample Duplicate (DUP)
1201228250	175906001(9522-0002-001F) Matrix Spike (MS)
1201228251	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: 175906001 (9522-0002-001F).

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: Pamela Williams 11/20/06

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#06-1460 GEL Work Order: 175906

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.

Pamela Williams

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 20, 2006

Client Sample ID:	9522–0002–001F	Project:	YANK01204
Sample ID:	175906001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium–241	U	0.141	+/–0.204	0.127	+/–0.205	0.348	pCi/g		JAS1	11/14/06	2012	587952	
Curium–242	U	0.0118	+/–0.112	0.0875	+/–0.112	0.275	pCi/g						
Curium–243/244	U	0.0593	+/–0.194	0.145	+/–0.195	0.384	pCi/g						
Alphaspec Pu, Solid–ALL FSS													
Plutonium–238	U	0.0798	+/–0.110	0.0402	+/–0.110	0.166	pCi/g		JAS1	11/14/06	2012	587954	
Plutonium–239/240	U	–0.0215	+/–0.0735	0.0752	+/–0.0736	0.236	pCi/g						
Liquid Scint Pu241, Solid–ALL FSS													
Plutonium–241	U	–3.22	+/–7.48	6.42	+/–7.48	13.5	pCi/g		JAS1	11/16/06	1615	587955	
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.124	+/–0.0283	0.0127	+/–0.0284	0.0291	pCi/g		KSD1	11/15/06	1718	588008	
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL FSS													
Tritium	U	–4.09	+/–4.10	3.66	+/–4.10	7.72	pCi/g		DFA1	11/14/06	1401	587978	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	–0.0154	+/–0.0815	0.0692	+/–0.0815	0.146	pCi/g		AXD2	11/14/06	1834	587976	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–7.33	+/–31.4	24.1	+/–31.4	50.8	pCi/g		MXP1	11/14/06	1933	587968	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–4.41	+/–10.3	8.77	+/–10.3	18.2	pCi/g		MXP1	11/14/06	1800	587973	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	–0.077	+/–0.208	0.176	+/–0.208	0.359	pCi/g		KXR1	11/20/06	0052	587960	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1411	587562

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC 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 : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-001F Project: YANK01204
Sample ID: 175906001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	M
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 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 EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	82	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	89	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	90	(25%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	92	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	92	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-ALL FS	58	(15%-125%)
Nickel-63	Liquid Scint Ni63, Solid-ALL FS	92	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	92	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-ALL FS	71	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	71	(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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–001F Project: YANK01204
Sample ID: 175906001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-004F	Project:	YANK01204
Sample ID:	175906002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	11.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	-0.0302	+/-0.112	0.106	+/-0.112	0.289	pCi/g		JAS1	11/14/06	2012	587952	
Curium-242	U	-0.0147	+/-0.0633	0.0388	+/-0.0633	0.161	pCi/g						
Curium-243/244	U	-0.0939	+/-0.101	0.120	+/-0.102	0.319	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.0765	+/-0.0636	0.0794	+/-0.0638	0.225	pCi/g		JAS1	11/14/06	2012	587954	
Plutonium-239/240	U	-0.0412	+/-0.0305	0.0582	+/-0.0308	0.183	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-1.11	+/-7.91	6.69	+/-7.91	14.1	pCi/g		JAS1	11/16/06	1631	587955	
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0402	+/-0.0182	0.0104	+/-0.0182	0.0243	pCi/g		KSD1	11/15/06	1718	588008	
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	-3.28	+/-5.09	4.44	+/-5.09	9.39	pCi/g		DFA1	11/14/06	1433	587978	
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	-0.0467	+/-0.0828	0.0719	+/-0.0828	0.152	pCi/g		AXD2	11/14/06	1922	587976	
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	0.0874	+/-30.1	22.6	+/-30.1	47.5	pCi/g		MXP1	11/14/06	1949	587968	
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	2.84	+/-9.55	7.92	+/-9.55	16.4	pCi/g		MXP1	11/14/06	1816	587973	
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	-0.0329	+/-0.213	0.180	+/-0.213	0.367	pCi/g		KXR1	11/20/06	0124	587960	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1411	587562

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–004F Project: YANK01204
Sample ID: 175906002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N
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 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 EML HASL–300, Tc–02–RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	96	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	113	(15%–125%)
Plutonium–241	Liquid Scint Pu241, Solid–ALL FS	86	(25%–125%)
Strontium–90	GFPC, Sr90, solid–ALL FSS	95	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	95	(25%–125%)
Iron–55	Liquid Scint Fe55, Solid–ALL FS	66	(15%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	88	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	88	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	70	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	70	(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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-004F Project: YANK01204
Sample ID: 175906002 Client ID: YANK001
Vol. Recv.:

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

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: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–001F	Project:	YANK01204
Sample ID:	175906003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.03	+/–0.260	0.0881	+/–0.260	0.193	pCi/g		MJH1	11/13/06	1443	587668	
Americium–241	U	–0.009	+/–0.0468	0.0409	+/–0.0468	0.0846	pCi/g						
Bismuth–212	U	0.491	+/–0.590	0.245	+/–0.590	0.524	pCi/g						
Bismuth–214		0.938	+/–0.158	0.0569	+/–0.158	0.121	pCi/g						
Cesium–134	UI	0.00	+/–0.0644	0.0407	+/–0.0644	0.0865	pCi/g						
Cesium–137	U	0.0619	+/–0.0794	0.0307	+/–0.0794	0.0657	pCi/g						
Cobalt–60	U	–0.00975	+/–0.0408	0.0331	+/–0.0408	0.0727	pCi/g						
Europium–152	U	0.0416	+/–0.0869	0.076	+/–0.0869	0.160	pCi/g						
Europium–154	U	–0.0269	+/–0.108	0.0877	+/–0.108	0.193	pCi/g						
Europium–155	U	0.0392	+/–0.0797	0.069	+/–0.0797	0.143	pCi/g						
Lead–212		0.857	+/–0.113	0.0603	+/–0.113	0.124	pCi/g						
Lead–214		1.06	+/–0.154	0.0566	+/–0.154	0.119	pCi/g						
Manganese–54	U	–0.0078	+/–0.0373	0.0305	+/–0.0373	0.0655	pCi/g						
Niobium–94	U	–0.0113	+/–0.0353	0.0292	+/–0.0353	0.0621	pCi/g						
Potassium–40		10.8	+/–1.25	0.258	+/–1.25	0.580	pCi/g						
Radium–226		0.938	+/–0.158	0.0569	+/–0.158	0.121	pCi/g						
Silver–108m	U	–0.03	+/–0.0293	0.0243	+/–0.0293	0.0517	pCi/g						
Thallium–208		0.353	+/–0.0872	0.0275	+/–0.0872	0.0588	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1411	587562

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–001F Project: YANK01204
Sample ID: 175906003 Client ID: YANK001
Vol. Recv.:

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

> 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: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-004F	Project:	YANK01204
Sample ID:	175906004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	11.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.939	+/-0.191	0.0822	+/-0.191	0.179	pCi/g		MJH1	11/13/06	1445	587668	
Americium-241	U	0.00366	+/-0.0336	0.0277	+/-0.0336	0.0574	pCi/g						
Bismuth-212		0.656	+/-0.296	0.166	+/-0.296	0.359	pCi/g						
Bismuth-214		0.737	+/-0.129	0.0383	+/-0.129	0.0825	pCi/g						
Cesium-134	U	0.0475	+/-0.0306	0.0295	+/-0.0306	0.0631	pCi/g						
Cesium-137		0.267	+/-0.0528	0.0224	+/-0.0528	0.0482	pCi/g						
Cobalt-60	U	0.00023	+/-0.0467	0.0251	+/-0.0467	0.0558	pCi/g						
Europium-152	U	0.0088	+/-0.0603	0.052	+/-0.0603	0.110	pCi/g						
Europium-154	U	-0.00383	+/-0.0829	0.0695	+/-0.0829	0.154	pCi/g						
Europium-155	U	0.0303	+/-0.051	0.0456	+/-0.051	0.095	pCi/g						
Lead-212		0.790	+/-0.0666	0.0289	+/-0.0666	0.0606	pCi/g						
Lead-214		0.714	+/-0.108	0.035	+/-0.108	0.0745	pCi/g						
Manganese-54	U	0.0234	+/-0.0289	0.0261	+/-0.0289	0.0559	pCi/g						
Niobium-94	U	-0.00888	+/-0.0214	0.0174	+/-0.0214	0.0379	pCi/g						
Potassium-40		9.61	+/-1.14	0.165	+/-1.14	0.386	pCi/g						
Radium-226		0.737	+/-0.129	0.0383	+/-0.129	0.0825	pCi/g						
Silver-108m	U	-0.0085	+/-0.0181	0.0155	+/-0.0181	0.0335	pCi/g						
Thallium-208		0.282	+/-0.0557	0.0181	+/-0.0557	0.0394	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1411	587562

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 20, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-004F Project: YANK01204
Sample ID: 175906004 Client ID: YANK001
Vol. Recv.:

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

> 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.

QUALITY CONTROL DATA

QC Summary

Report Date: November 20, 2006

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut
Contact: Mr. Jack McCarthy

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 587952										
QC1201228165 175901001 DUP										
Americium-241	U	-0.0111	U	0.0319	pCi/g	413		(0% - 100%)	JAS1	11/14/06 20:12
	Uncert:	+/-0.0716		+/-0.0889						
	TPU:	+/-0.0717		+/-0.089						
Curium-242	U	0.0644	U	0.0408	pCi/g	45		(0% - 100%)		
	Uncert:	+/-0.0893		+/-0.092						
	TPU:	+/-0.0896		+/-0.0921						
Curium-243/244	U	-0.0159	U	-0.0412	pCi/g	89		(0% - 100%)		
	Uncert:	+/-0.151		+/-0.0995						
	TPU:	+/-0.151		+/-0.0996						
QC1201228167 LCS										
Americium-241	12.8			12.5	pCi/g		98	(75%-125%)		
	Uncert:			+/-1.16						
	TPU:			+/-1.88						
Curium-242			U	-0.0191	pCi/g					
	Uncert:			+/-0.0652						
	TPU:			+/-0.0653						
Curium-243/244	15.3			13.2	pCi/g		86	(75%-125%)		
	Uncert:			+/-1.20						
	TPU:			+/-1.97						
QC1201228164 MB										
Americium-241			U	0.115	pCi/g					
	Uncert:			+/-0.162						
	TPU:			+/-0.163						
Curium-242			U	0.0168	pCi/g					
	Uncert:			+/-0.103						
	TPU:			+/-0.104						
Curium-243/244			U	-0.137	pCi/g					
	Uncert:			+/-0.104						
	TPU:			+/-0.105						
QC1201228166 175901001 MS										
Americium-241	13.5 U	-0.0111		12.2	pCi/g		90	(75%-125%)		
	Uncert:	+/-0.0716		+/-1.37						
	TPU:	+/-0.0717		+/-2.07						
Curium-242	U	0.0644	U	0.00332	pCi/g					
	Uncert:	+/-0.0893		+/-0.128						
	TPU:	+/-0.0896		+/-0.128						
Curium-243/244	16.2 U	-0.0159		16.1	pCi/g		99	(75%-125%)		
	Uncert:	+/-0.151		+/-1.58						
	TPU:	+/-0.151		+/-2.59						
Batch 587954										
QC1201228169 175901001 DUP										
Plutonium-238	U	-0.103	U	-0.0249	pCi/g	122		(0% - 100%)	JAS1	11/14/06 20:12

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 587954										
	Uncert:	+/-0.0583		+/-0.139						
	TPU:	+/-0.0594		+/-0.139						
Plutonium-239/240	U	-0.0129	U	-0.0274	pCi/g	72		(0% - 100%)		
	Uncert:	+/-0.137		+/-0.100						
	TPU:	+/-0.137		+/-0.100						
QC1201228171 LCS										
Plutonium-238			U	-0.0273	pCi/g			(75%-125%)		
	Uncert:			+/-0.0704						
	TPU:			+/-0.0705						
Plutonium-239/240	11.8			12.0	pCi/g		102	(75%-125%)		
	Uncert:			+/-1.17						
	TPU:			+/-1.69						
QC1201228168 MB										
Plutonium-238			U	-0.0137	pCi/g					
	Uncert:			+/-0.059						
	TPU:			+/-0.059						
Plutonium-239/240			U	-0.0205	pCi/g					
	Uncert:			+/-0.0605						
	TPU:			+/-0.0605						
QC1201228170 175901001 MS										
Plutonium-238	U	-0.103	U	0.0104	pCi/g			(75%-125%)		
	Uncert:	+/-0.0583		+/-0.108						
	TPU:	+/-0.0594		+/-0.108						
Plutonium-239/240	12.5 U	-0.0129		13.3	pCi/g		106	(75%-125%)		
	Uncert:	+/-0.137		+/-1.22						
	TPU:	+/-0.137		+/-1.80						
Batch 587955										
QC1201228179 175901001 DUP										
Plutonium-241	U	0.987	U	2.15	pCi/g	0		(0% - 100%)	JAS1	11/16/06 17:03
	Uncert:	+/-7.15		+/-9.73						
	TPU:	+/-7.15		+/-9.73						
QC1201228181 LCS										
Plutonium-241	141			128	pCi/g		91	(75%-125%)		11/16/06 17:35
	Uncert:			+/-12.4						
	TPU:			+/-18.1						
QC1201228178 MB										
Plutonium-241			U	-3.34	pCi/g					11/16/06 16:47
	Uncert:			+/-7.74						
	TPU:			+/-7.74						
QC1201228180 175901001 MS										
Plutonium-241	141 U	0.987		127	pCi/g		90	(75%-125%)		11/16/06 17:19
	Uncert:	+/-7.15		+/-12.2						
	TPU:	+/-7.15		+/-17.7						
Rad Gamma Spec										
Batch 587668										
QC1201227496 175901001 DUP										
Actinium-228		0.623		0.649	pCi/g	4		(0% - 100%)	MJH1	11/14/06 05:39
	Uncert:	+/-0.117		+/-0.171						
				+/-0.171						

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 587668											
	TPU:	+/-0.117									
Americium-241	U	-0.0244	U	0.0247	pCi/g	32800		(0% - 100%)			
	Uncert:	+/-0.0896		+/-0.0501							
	TPU:	+/-0.0896		+/-0.0501							
Bismuth-212	UI	0.00		0.475	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.166		+/-0.262							
	TPU:	+/-0.166		+/-0.262							
Bismuth-214		0.587		0.644	pCi/g	9		(0% - 100%)			
	Uncert:	+/-0.0824		+/-0.127							
	TPU:	+/-0.0824		+/-0.127							
Cesium-134	UI	0.00	U	0.0512	pCi/g	7		(0% - 100%)			
	Uncert:	+/-0.0419		+/-0.035							
	TPU:	+/-0.0419		+/-0.035							
Cesium-137		0.137		0.220	pCi/g	46		(0% - 100%)			
	Uncert:	+/-0.0402		+/-0.0557							
	TPU:	+/-0.0402		+/-0.0557							
Cobalt-60	U	0.00871	U	0.00915	pCi/g	5		(0% - 100%)			
	Uncert:	+/-0.0188		+/-0.0306							
	TPU:	+/-0.0188		+/-0.0306							
Europium-152	U	-0.0167	U	-0.0129	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.0452		+/-0.0799							
	TPU:	+/-0.0452		+/-0.0799							
Europium-154	U	-0.0586	U	-0.0281	pCi/g	70		(0% - 100%)			
	Uncert:	+/-0.0558		+/-0.0893							
	TPU:	+/-0.0558		+/-0.0893							
Europium-155	U	0.0367	U	0.0373	pCi/g	2		(0% - 100%)			
	Uncert:	+/-0.0494		+/-0.0583							
	TPU:	+/-0.0494		+/-0.0583							
Lead-212		0.647		0.590	pCi/g	9		(0% - 20%)			
	Uncert:	+/-0.0514		+/-0.0763							
	TPU:	+/-0.0514		+/-0.0763							
Lead-214		0.536		0.604	pCi/g	12		(0% - 20%)			
	Uncert:	+/-0.0697		+/-0.0975							
	TPU:	+/-0.0697		+/-0.0975							
Manganese-54	U	-0.00498	U	0.0131	pCi/g	445		(0% - 100%)			
	Uncert:	+/-0.0185		+/-0.0258							
	TPU:	+/-0.0185		+/-0.0258							
Niobium-94	U	-0.00593	U	-0.00651	pCi/g	9		(0% - 100%)			
	Uncert:	+/-0.016		+/-0.0235							
	TPU:	+/-0.016		+/-0.0235							
Potassium-40		9.70		9.46	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.790		+/-0.904							
	TPU:	+/-0.790		+/-0.904							
Radium-226		0.587		0.644	pCi/g	9		(0% - 100%)			
	Uncert:	+/-0.0824		+/-0.127							
	TPU:	+/-0.0824		+/-0.127							
Silver-108m	U	0.00162	U	-0.00474	pCi/g	408		(0% - 100%)			
	Uncert:	+/-0.0147		+/-0.0211							

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587668										
	TPU:	+/-0.0147		+/-0.0211						
Thallium-208		0.202		0.211	pCi/g	5		(0% - 100%)		
	Uncert:	+/-0.0371		+/-0.0531						
	TPU:	+/-0.0371		+/-0.0531						
QC1201227497 LCS										
Actinium-228			U	-0.267	pCi/g					11/14/06 05:38
	Uncert:			+/-0.527						
	TPU:			+/-0.527						
Americium-241	23.4			24.0	pCi/g		103	(75%-125%)		
	Uncert:			+/-0.579						
	TPU:			+/-0.579						
Bismuth-212			U	0.0433	pCi/g					
	Uncert:			+/-0.880						
	TPU:			+/-0.880						
Bismuth-214			U	0.0525	pCi/g					
	Uncert:			+/-0.206						
	TPU:			+/-0.206						
Cesium-134			U	0.0656	pCi/g					
	Uncert:			+/-0.131						
	TPU:			+/-0.131						
Cesium-137	9.53			10.3	pCi/g		108	(75%-125%)		
	Uncert:			+/-0.455						
	TPU:			+/-0.455						
Cobalt-60	14.1			14.4	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.618						
	TPU:			+/-0.618						
Europium-152			U	-0.166	pCi/g					
	Uncert:			+/-0.234						
	TPU:			+/-0.234						
Europium-154			U	0.0013	pCi/g					
	Uncert:			+/-0.261						
	TPU:			+/-0.261						
Europium-155			U	0.0186	pCi/g					
	Uncert:			+/-0.181						
	TPU:			+/-0.181						
Lead-212			U	-0.0176	pCi/g					
	Uncert:			+/-0.129						
	TPU:			+/-0.129						
Lead-214			U	0.0879	pCi/g					
	Uncert:			+/-0.200						
	TPU:			+/-0.200						
Manganese-54			U	0.100	pCi/g					
	Uncert:			+/-0.122						
	TPU:			+/-0.122						
Niobium-94			U	-0.00783	pCi/g					
	Uncert:			+/-0.108						
	TPU:			+/-0.108						
Potassium-40			U	0.674	pCi/g					

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587668										
	Uncert:			+/-1.03						
	TPU:			+/-1.03						
Radium-226			U	0.0525	pCi/g			(75%-125%)		
	Uncert:			+/-0.206						
	TPU:			+/-0.206						
Silver-108m			U	-0.066	pCi/g					
	Uncert:			+/-0.0955						
	TPU:			+/-0.0955						
Thallium-208			U	0.0874	pCi/g					
	Uncert:			+/-0.103						
	TPU:			+/-0.103						
QC1201227495 MB										
Actinium-228			U	0.0265	pCi/g					11/14/06 05:36
	Uncert:			+/-0.0331						
	TPU:			+/-0.0331						
Americium-241			U	-0.00259	pCi/g					
	Uncert:			+/-0.0337						
	TPU:			+/-0.0337						
Bismuth-212			U	0.0253	pCi/g					
	Uncert:			+/-0.0826						
	TPU:			+/-0.0826						
Bismuth-214			U	0.0446	pCi/g					
	Uncert:			+/-0.0227						
	TPU:			+/-0.0227						
Cesium-134			U	-0.00362	pCi/g					
	Uncert:			+/-0.0103						
	TPU:			+/-0.0103						
Cesium-137			U	-0.00749	pCi/g					
	Uncert:			+/-0.00967						
	TPU:			+/-0.00967						
Cobalt-60			U	0.0102	pCi/g					
	Uncert:			+/-0.00995						
	TPU:			+/-0.00995						
Europium-152			U	0.0106	pCi/g					
	Uncert:			+/-0.025						
	TPU:			+/-0.025						
Europium-154			U	-0.000185	pCi/g					
	Uncert:			+/-0.0282						
	TPU:			+/-0.0282						
Europium-155			U	-0.00897	pCi/g					
	Uncert:			+/-0.0296						
	TPU:			+/-0.0296						
Lead-212			UI	0.00	pCi/g					
	Uncert:			+/-0.0295						
	TPU:			+/-0.0295						
Lead-214			U	0.0198	pCi/g					
	Uncert:			+/-0.0275						
	TPU:			+/-0.0275						

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587668										
Manganese-54			U	0.0154	pCi/g					
	Uncert:			+/-0.0203						
	TPU:			+/-0.0203						
Niobium-94			U	-0.00403	pCi/g					
	Uncert:			+/-0.00979						
	TPU:			+/-0.00979						
Potassium-40			UI	0.00	pCi/g					
	Uncert:			+/-0.120						
	TPU:			+/-0.120						
Radium-226			U	0.0446	pCi/g					
	Uncert:			+/-0.0227						
	TPU:			+/-0.0227						
Silver-108m			U	-0.00534	pCi/g					
	Uncert:			+/-0.00896						
	TPU:			+/-0.00896						
Thallium-208			U	0.005	pCi/g					
	Uncert:			+/-0.0172						
	TPU:			+/-0.0172						
Rad Gas Flow										
Batch 588008										
QC1201228311 175901001 DUP										
Strontium-90		0.0337	U	0.0388	pCi/g	14		(0% - 100%)	KSD1	11/15/06 18:37
	Uncert:	+/-0.0216		+/-0.0263						
	TPU:	+/-0.0216		+/-0.0263						
QC1201228313 LCS										
Strontium-90	1.52			1.24	pCi/g		82	(75%-125%)		11/15/06 18:37
	Uncert:			+/-0.136						
	TPU:			+/-0.139						
QC1201228310 MB										
Strontium-90			U	-0.0104	pCi/g					11/15/06 17:18
	Uncert:			+/-0.0131						
	TPU:			+/-0.0131						
QC1201228312 175901001 MS										
Strontium-90	4.96	0.0337		4.38	pCi/g		88	(75%-125%)		11/15/06 18:37
	Uncert:	+/-0.0216		+/-0.466						
	TPU:	+/-0.0216		+/-0.475						
Rad Liquid Scintillation										
Batch 587960										
QC1201228199 175901001 DUP										
Technetium-99	U	-0.00999	U	0.00579	pCi/g	0		(0% - 100%)	KXR1	11/20/06 02:27
	Uncert:	+/-0.215		+/-0.232						
	TPU:	+/-0.215		+/-0.232						
QC1201228201 LCS										
Technetium-99	12.8			10.1	pCi/g		79	(75%-125%)		11/20/06 03:31
	Uncert:			+/-0.337						
	TPU:			+/-0.419						
QC1201228198 MB										
Technetium-99			U	-0.145	pCi/g					11/20/06 01:55

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 587960										
	Uncert:			+/-0.173						
	TPU:			+/-0.173						
QC1201228200 175901001 MS										
Technetium-99	12.8 U	-0.00999		9.81	pCi/g		77	(75%-125%)		11/20/06 10:10
	Uncert:	+/-0.215		+/-0.521						
	TPU:	+/-0.215		+/-0.575						
Batch 587968										
QC1201228224 175901002 DUP										
Iron-55	U	13.0	U	-5.67	pCi/g	0		(0% - 100%)	MXP1	11/14/06 20:22
	Uncert:	+/-33.9		+/-29.1						
	TPU:	+/-33.9		+/-29.1						
QC1201228226 LCS										
Iron-55	598			558	pCi/g		93	(75%-125%)		11/14/06 20:54
	Uncert:			+/-71.9						
	TPU:			+/-91.6						
QC1201228223 MB										
Iron-55			U	15.6	pCi/g					11/14/06 20:05
	Uncert:			+/-28.3						
	TPU:			+/-28.4						
QC1201228225 175901002 MS										
Iron-55	665 U	13.0		508	pCi/g		76	(75%-125%)		11/14/06 20:38
	Uncert:	+/-33.9		+/-49.5						
	TPU:	+/-33.9		+/-69.3						
Batch 587973										
QC1201228241 175901001 DUP										
Nickel-63	U	0.00	U	4.34	pCi/g	0		(0% - 100%)	MXP1	11/14/06 18:49
	Uncert:	+/-11.7		+/-11.5						
	TPU:	+/-11.7		+/-11.5						
QC1201228243 LCS										
Nickel-63	497			494	pCi/g		99	(75%-125%)		11/14/06 19:21
	Uncert:			+/-21.9						
	TPU:			+/-27.7						
QC1201228240 MB										
Nickel-63			U	5.95	pCi/g					11/14/06 18:32
	Uncert:			+/-9.46						
	TPU:			+/-9.46						
QC1201228242 175901001 MS										
Nickel-63	531 U	0.00		503	pCi/g		95	(75%-125%)		11/14/06 19:05
	Uncert:	+/-11.7		+/-22.9						
	TPU:	+/-11.7		+/-28.9						
Batch 587976										
QC1201228249 175906001 DUP										
Carbon-14	U	-0.0154	U	0.0409	pCi/g	0		(0% - 100%)	AXD2	11/14/06 20:57
	Uncert:	+/-0.0815		+/-0.0864						
	TPU:	+/-0.0815		+/-0.0864						
QC1201228251 LCS										
Carbon-14	6.87			7.39	pCi/g		108	(75%-125%)		11/14/06 22:02
	Uncert:			+/-0.469						
	TPU:			+/-0.483						

QC Summary

Workorder: 175906

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 587976										
QC1201228248 MB										
Carbon-14			U	0.0274	pCi/g					11/14/06 20:09
Uncert:				+/-0.0781						
TPU:				+/-0.0781						
QC1201228250 175906001 MS										
Carbon-14	6.99 U	-0.0154		7.42	pCi/g		106	(75%-125%)		11/14/06 21:44
Uncert:		+/-0.0815		+/-0.496						
TPU:		+/-0.0815		+/-0.510						
Batch 587978										
QC1201228257 175906002 DUP										
Tritium	U	-3.28	U	-3.2	pCi/g	0		(0% - 100%)	DFA1	11/14/06 15:36
Uncert:		+/-5.09		+/-3.91						
TPU:		+/-5.09		+/-3.91						
QC1201228259 LCS										
Tritium	49.4			52.1	pCi/g		105	(75%-125%)		11/14/06 16:39
Uncert:				+/-6.31						
TPU:				+/-6.37						
QC1201228256 MB										
Tritium			U	-3.44	pCi/g					11/14/06 15:05
Uncert:				+/-3.73						
TPU:				+/-3.73						
QC1201228258 175906002 MS										
Tritium	49.5 U	-3.28		41.3	pCi/g		83	(75%-125%)		11/14/06 16:08
Uncert:		+/-5.09		+/-5.93						
TPU:		+/-5.09		+/-5.97						

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

QC Summary

Workorder: **175906**

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

^

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.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 175908

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	587667
Prep Batch Number:	587565

Sample ID	Client ID
175908001	9522-0002-002F
175908002	9522-0002-003F
175908003	9522-0002-005F
175908004	9522-0002-006F
175908005	9522-0002-007F
175908006	9522-0002-007FS
175908007	9522-0002-008F
175908008	9522-0002-009F
175908009	9522-0002-010F
175908010	9522-0002-013F
175908011	9522-0002-011F
175908012	9522-0002-014F
175908013	9522-0002-016F
175908014	9522-0002-012F
175908015	9522-0002-015F
175908016	9522-0002-043F
175908017	9522-0002-042F
175908018	9522-0002-041F
175908019	9522-0002-039F
175908020	9522-0002-040F
1201227492	Method Blank (MB)
1201227493	175908001(9522-0002-002F) Sample Duplicate (DUP)
1201227494	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: 175908001 (9522-0002-002F).

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 175908006 (9522-0002-007FS), 175908013 (9522-0002-016F) and 175908020 (9522-0002-040F) 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

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Bismuth-212	175908002
		Cesium-137	1201227493
UI	Data rejected due to interference.	Europium-155	175908011
			175908017
		Manganese-54	175908015
			175908017
			175908018
UI	Data rejected due to low abundance.	Bismuth-212	175908005
		Cesium-134	175908001
			175908005
			175908007
			175908009
			175908010
			175908013
			175908015
			175908017
			175908019
			175908020
			1201227493
		Europium-154	175908015

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	587668
Prep Batch Number:	587566

Sample ID	Client ID
175908021	9522-0002-038F
175908022	9522-0002-037F
175908023	9522-0002-036F
175908024	9522-0002-030F
175908025	9522-0002-033F
175908026	9522-0002-034F
175908027	9522-0002-035F
175908028	9522-0002-032F
175908029	9522-0002-029F
175908030	9522-0002-031F
175908031	9522-0002-044F
175908032	9522-0002-024F
175908033	9522-0002-025F
175908034	9522-0002-026F
175908035	9522-0002-027F
175908036	9522-0002-028F
1201227495	Method Blank (MB)
1201227496	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201227497	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: 175901001 (9522-0003-006F).

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
The sample and the duplicate, 1201227496 (9522-0003-006F) , did not meet the relative percent difference requirement for Cs-137, however they do meet the relative error ratio requirement with value of 2.36.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Bismuth-212	175908021
		Lead-212	1201227495
UI	Data rejected due to interference.	Europium-155	175908025
			175908035
UI	Data rejected due to low abundance.	Cesium-134	175908021
			175908026
			175908028
			175908033
			175908036
		Cobalt-60	175908036
		Potassium-40	1201227495

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: Aprill Gaurw 11/17/06

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#06-1460 GEL Work Order: 175908

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.

Heather G Acuo

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID:	9522-0002-002F	Project:	YANK01204
Sample ID:	175908001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	18.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.943	+/-0.159	0.0639	+/-0.159	0.139	pCi/g		MJH1	11/14/06	0805	587667	
Americium-241	U	0.0915	+/-0.107	0.0835	+/-0.107	0.173	pCi/g						
Bismuth-212		0.625	+/-0.304	0.160	+/-0.304	0.340	pCi/g						
Bismuth-214		0.779	+/-0.107	0.0348	+/-0.107	0.0743	pCi/g						
Cesium-134	UI	0.00	+/-0.0436	0.0238	+/-0.0436	0.0509	pCi/g						
Cesium-137		0.0703	+/-0.0547	0.0186	+/-0.0547	0.040	pCi/g						
Cobalt-60	U	0.0111	+/-0.0228	0.0208	+/-0.0228	0.0459	pCi/g						
Europium-152	U	-0.00502	+/-0.0586	0.0434	+/-0.0586	0.0919	pCi/g						
Europium-154	U	-0.0251	+/-0.0601	0.0488	+/-0.0601	0.110	pCi/g						
Europium-155	U	0.0467	+/-0.0579	0.0541	+/-0.0579	0.112	pCi/g						
Lead-212		0.889	+/-0.0687	0.0285	+/-0.0687	0.0592	pCi/g						
Lead-214		0.874	+/-0.114	0.0322	+/-0.114	0.0682	pCi/g						
Manganese-54	U	-0.0125	+/-0.0237	0.0191	+/-0.0237	0.0411	pCi/g						
Niobium-94	U	0.0113	+/-0.0199	0.0178	+/-0.0199	0.038	pCi/g						
Potassium-40		10.8	+/-0.905	0.166	+/-0.905	0.376	pCi/g						
Radium-226		0.779	+/-0.107	0.0348	+/-0.107	0.0743	pCi/g						
Silver-108m	U	-0.00478	+/-0.0179	0.0156	+/-0.0179	0.0332	pCi/g						
Thallium-208		0.287	+/-0.0561	0.0185	+/-0.0561	0.0395	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–002F Project: YANK01204
Sample ID: 175908001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-003F	Project:	YANK01204
Sample ID:	175908002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	14.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.950	+/-0.151	0.0539	+/-0.151	0.116	pCi/g		MJH1	11/14/06	0806	587667	
Americium-241	U	-0.0689	+/-0.0861	0.0742	+/-0.0861	0.153	pCi/g						
Bismuth-212	UI	0.00	+/-0.299	0.148	+/-0.299	0.313	pCi/g						
Bismuth-214		0.820	+/-0.101	0.034	+/-0.101	0.0715	pCi/g						
Cesium-134	U	0.024	+/-0.0269	0.0243	+/-0.0269	0.051	pCi/g						
Cesium-137		0.581	+/-0.0614	0.0187	+/-0.0614	0.0394	pCi/g						
Cobalt-60	U	-0.00133	+/-0.0251	0.0211	+/-0.0251	0.0455	pCi/g						
Europium-152	U	0.0759	+/-0.0654	0.0517	+/-0.0654	0.107	pCi/g						
Europium-154	U	-0.0462	+/-0.076	0.0613	+/-0.076	0.131	pCi/g						
Europium-155	U	0.0374	+/-0.0597	0.0521	+/-0.0597	0.107	pCi/g						
Lead-212		1.05	+/-0.0724	0.029	+/-0.0724	0.0598	pCi/g						
Lead-214		0.919	+/-0.103	0.0364	+/-0.103	0.0756	pCi/g						
Manganese-54	U	0.00985	+/-0.0265	0.0201	+/-0.0265	0.0425	pCi/g						
Niobium-94	U	0.0226	+/-0.033	0.019	+/-0.033	0.0399	pCi/g						
Potassium-40		11.3	+/-0.926	0.162	+/-0.926	0.356	pCi/g						
Radium-226		0.820	+/-0.101	0.034	+/-0.101	0.0715	pCi/g						
Silver-108m	U	0.0165	+/-0.0214	0.0192	+/-0.0214	0.040	pCi/g						
Thallium-208		0.282	+/-0.0445	0.0182	+/-0.0445	0.0382	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–003F Project: YANK01204
Sample ID: 175908002 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-005F	Project:	YANK01204
Sample ID:	175908003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.959	+/-0.184	0.0502	+/-0.184	0.100	pCi/g		MJH1	11/14/06	0736	587667	
Americium-241	U	0.0526	+/-0.0723	0.0578	+/-0.0723	0.116	pCi/g						
Bismuth-212		0.405	+/-0.233	0.122	+/-0.233	0.244	pCi/g						
Bismuth-214		0.733	+/-0.0966	0.0285	+/-0.0966	0.057	pCi/g						
Cesium-134	U	0.0432	+/-0.0229	0.0217	+/-0.0229	0.0434	pCi/g						
Cesium-137		0.768	+/-0.0837	0.0212	+/-0.0837	0.0424	pCi/g						
Cobalt-60	U	0.0327	+/-0.0219	0.0206	+/-0.0219	0.0413	pCi/g						
Europium-152	U	-0.0437	+/-0.0985	0.0469	+/-0.0985	0.0937	pCi/g						
Europium-154	U	0.0184	+/-0.059	0.0507	+/-0.059	0.101	pCi/g						
Europium-155	U	0.0599	+/-0.0734	0.0454	+/-0.0734	0.0907	pCi/g						
Lead-212		0.848	+/-0.0905	0.0254	+/-0.0905	0.0509	pCi/g						
Lead-214		0.794	+/-0.108	0.0339	+/-0.108	0.0678	pCi/g						
Manganese-54	U	-0.00291	+/-0.0207	0.0176	+/-0.0207	0.0352	pCi/g						
Niobium-94	U	0.0154	+/-0.0173	0.0158	+/-0.0173	0.0316	pCi/g						
Potassium-40		10.6	+/-0.970	0.130	+/-0.970	0.260	pCi/g						
Radium-226		0.733	+/-0.0966	0.0285	+/-0.0966	0.057	pCi/g						
Silver-108m	U	-0.0137	+/-0.019	0.0157	+/-0.019	0.0313	pCi/g						
Thallium-208		0.273	+/-0.0516	0.0156	+/-0.0516	0.0312	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–005F Project: YANK01204
Sample ID: 175908003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-006F	Project:	YANK01204
Sample ID:	175908004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.976	+/-0.191	0.0557	+/-0.191	0.120	pCi/g		MJH1	11/14/06	0806	587667	
Americium-241	U	-0.0174	+/-0.0613	0.0507	+/-0.0613	0.105	pCi/g						
Bismuth-212		0.503	+/-0.263	0.118	+/-0.263	0.253	pCi/g						
Bismuth-214		0.844	+/-0.124	0.0309	+/-0.124	0.0652	pCi/g						
Cesium-134	U	0.035	+/-0.0326	0.0212	+/-0.0326	0.0447	pCi/g						
Cesium-137		1.08	+/-0.110	0.0175	+/-0.110	0.037	pCi/g						
Cobalt-60	U	0.0304	+/-0.0425	0.0137	+/-0.0425	0.0306	pCi/g						
Europium-152	U	-0.00838	+/-0.0582	0.0428	+/-0.0582	0.0895	pCi/g						
Europium-154	U	-0.0279	+/-0.0654	0.0453	+/-0.0654	0.0992	pCi/g						
Europium-155	U	0.0158	+/-0.0541	0.0445	+/-0.0541	0.0917	pCi/g						
Lead-212		0.865	+/-0.0876	0.0227	+/-0.0876	0.0471	pCi/g						
Lead-214		0.878	+/-0.118	0.029	+/-0.118	0.0607	pCi/g						
Manganese-54	U	-0.00597	+/-0.0182	0.0148	+/-0.0182	0.0317	pCi/g						
Niobium-94	U	-0.0111	+/-0.0175	0.0142	+/-0.0175	0.0301	pCi/g						
Potassium-40		11.3	+/-1.11	0.129	+/-1.11	0.289	pCi/g						
Radium-226		0.844	+/-0.124	0.0309	+/-0.124	0.0652	pCi/g						
Silver-108m	U	0.012	+/-0.0173	0.0148	+/-0.0173	0.0311	pCi/g						
Thallium-208		0.285	+/-0.0479	0.0175	+/-0.0479	0.0369	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–006F Project: YANK01204
Sample ID: 175908004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-007F	Project:	YANK01204
Sample ID:	175908005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.37	+/-0.276	0.112	+/-0.276	0.223	pCi/g		MJH1	11/14/06	0909	587667	
Americium-241	U	0.0227	+/-0.0475	0.0369	+/-0.0475	0.0738	pCi/g						
Bismuth-212	UI	0.00	+/-0.321	0.308	+/-0.321	0.615	pCi/g						
Bismuth-214		0.923	+/-0.158	0.0507	+/-0.158	0.101	pCi/g						
Cesium-134	UI	0.00	+/-0.0598	0.0393	+/-0.0598	0.0786	pCi/g						
Cesium-137		0.346	+/-0.070	0.0283	+/-0.070	0.0566	pCi/g						
Cobalt-60	U	0.00853	+/-0.0408	0.0346	+/-0.0408	0.0691	pCi/g						
Europium-152	U	0.0188	+/-0.102	0.0723	+/-0.102	0.145	pCi/g						
Europium-154	U	0.0106	+/-0.133	0.0955	+/-0.133	0.191	pCi/g						
Europium-155	U	0.0836	+/-0.0725	0.0635	+/-0.0725	0.127	pCi/g						
Lead-212		1.12	+/-0.128	0.0363	+/-0.128	0.0726	pCi/g						
Lead-214		0.902	+/-0.137	0.0492	+/-0.137	0.0982	pCi/g						
Manganese-54	U	-0.0339	+/-0.0352	0.0273	+/-0.0352	0.0546	pCi/g						
Niobium-94	U	-0.00365	+/-0.0331	0.0283	+/-0.0331	0.0566	pCi/g						
Potassium-40		10.2	+/-1.38	0.319	+/-1.38	0.637	pCi/g						
Radium-226		0.923	+/-0.158	0.0507	+/-0.158	0.101	pCi/g						
Silver-108m	U	0.00831	+/-0.0305	0.0262	+/-0.0305	0.0524	pCi/g						
Thallium-208		0.359	+/-0.0847	0.0264	+/-0.0847	0.0528	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–007F Project: YANK01204
Sample ID: 175908005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-007FS	Project:	YANK01204
Sample ID:	175908006	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	20.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.13	+/-0.180	0.0627	+/-0.180	0.134	pCi/g		MJH1	11/16/06	1236	587667	
Americium-241	U	-0.0266	+/-0.101	0.0797	+/-0.101	0.163	pCi/g						
Bismuth-212		0.863	+/-0.336	0.147	+/-0.336	0.311	pCi/g						
Bismuth-214		0.855	+/-0.0981	0.035	+/-0.0981	0.0735	pCi/g						
Cesium-134	U	0.0481	+/-0.0293	0.0248	+/-0.0293	0.052	pCi/g						
Cesium-137		0.257	+/-0.0586	0.0192	+/-0.0586	0.0403	pCi/g						
Cobalt-60	U	-0.0153	+/-0.0251	0.020	+/-0.0251	0.0432	pCi/g						
Europium-152	U	-0.0254	+/-0.062	0.0509	+/-0.062	0.106	pCi/g						
Europium-154	U	-0.0246	+/-0.0711	0.0586	+/-0.0711	0.126	pCi/g						
Europium-155	U	0.0268	+/-0.0637	0.0553	+/-0.0637	0.113	pCi/g						
Lead-212		1.17	+/-0.0744	0.0294	+/-0.0744	0.0605	pCi/g						
Lead-214		1.10	+/-0.108	0.035	+/-0.108	0.0729	pCi/g						
Manganese-54	U	0.000937	+/-0.0279	0.0205	+/-0.0279	0.0433	pCi/g						
Niobium-94	U	0.000559	+/-0.023	0.0191	+/-0.023	0.040	pCi/g						
Potassium-40		11.3	+/-0.868	0.165	+/-0.868	0.362	pCi/g						
Radium-226		0.855	+/-0.0981	0.035	+/-0.0981	0.0735	pCi/g						
Silver-108m	U	-0.00728	+/-0.0209	0.0179	+/-0.0209	0.0372	pCi/g						
Thallium-208		0.404	+/-0.0508	0.0181	+/-0.0508	0.0381	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–007FS Project: YANK01204
Sample ID: 175908006 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–008F	Project:	YANK01204
Sample ID:	175908007	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	28.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.877	+/–0.209	0.0735	+/–0.209	0.158	pCi/g		MJH1	11/14/06	0903	587667	
Americium–241	U	0.0225	+/–0.0356	0.029	+/–0.0356	0.0596	pCi/g						
Bismuth–212		0.559	+/–0.318	0.155	+/–0.318	0.333	pCi/g						
Bismuth–214		0.859	+/–0.115	0.0402	+/–0.115	0.085	pCi/g						
Cesium–134	UI	0.00	+/–0.0352	0.0291	+/–0.0352	0.0615	pCi/g						
Cesium–137		0.913	+/–0.0867	0.0225	+/–0.0867	0.0478	pCi/g						
Cobalt–60	U	0.038	+/–0.0276	0.0265	+/–0.0276	0.0574	pCi/g						
Europium–152	U	–0.0173	+/–0.0667	0.0574	+/–0.0667	0.120	pCi/g						
Europium–154	U	–0.00915	+/–0.0731	0.0607	+/–0.0731	0.133	pCi/g						
Europium–155	U	0.0713	+/–0.0576	0.0518	+/–0.0576	0.107	pCi/g						
Lead–212		0.990	+/–0.0726	0.0293	+/–0.0726	0.0609	pCi/g						
Lead–214		0.964	+/–0.124	0.0396	+/–0.124	0.0828	pCi/g						
Manganese–54	U	–0.00656	+/–0.0281	0.0226	+/–0.0281	0.0483	pCi/g						
Niobium–94	U	0.00282	+/–0.0221	0.0186	+/–0.0221	0.0397	pCi/g						
Potassium–40		9.82	+/–0.999	0.210	+/–0.999	0.465	pCi/g						
Radium–226		0.859	+/–0.115	0.0402	+/–0.115	0.085	pCi/g						
Silver–108m	U	–0.00236	+/–0.0232	0.0199	+/–0.0232	0.0417	pCi/g						
Thallium–208		0.354	+/–0.0673	0.0207	+/–0.0673	0.044	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–008F Project: YANK01204
Sample ID: 175908007 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-009F	Project:	YANK01204
Sample ID:	175908008	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	30.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.10	+/-0.277	0.0953	+/-0.277	0.203	pCi/g		MJH1	11/14/06	0904	587667	
Americium-241	U	0.0036	+/-0.0413	0.0344	+/-0.0413	0.0708	pCi/g						
Bismuth-212		0.891	+/-0.479	0.216	+/-0.479	0.454	pCi/g						
Bismuth-214		0.832	+/-0.150	0.0494	+/-0.150	0.104	pCi/g						
Cesium-134	U	0.0555	+/-0.0389	0.0349	+/-0.0389	0.0732	pCi/g						
Cesium-137		1.17	+/-0.0917	0.035	+/-0.0917	0.0729	pCi/g						
Cobalt-60	U	0.037	+/-0.0339	0.0308	+/-0.0339	0.0661	pCi/g						
Europium-152	U	-0.0504	+/-0.0829	0.0658	+/-0.0829	0.137	pCi/g						
Europium-154	U	0.039	+/-0.0923	0.0796	+/-0.0923	0.171	pCi/g						
Europium-155	U	0.061	+/-0.0886	0.0557	+/-0.0886	0.115	pCi/g						
Lead-212		0.941	+/-0.101	0.0498	+/-0.101	0.102	pCi/g						
Lead-214		1.03	+/-0.135	0.047	+/-0.135	0.0978	pCi/g						
Manganese-54	U	0.0141	+/-0.0345	0.029	+/-0.0345	0.061	pCi/g						
Niobium-94	U	0.0362	+/-0.0344	0.0258	+/-0.0344	0.0541	pCi/g						
Potassium-40		11.2	+/-1.08	0.237	+/-1.08	0.519	pCi/g						
Radium-226		0.832	+/-0.150	0.0494	+/-0.150	0.104	pCi/g						
Silver-108m	U	-0.00673	+/-0.0283	0.0242	+/-0.0283	0.0505	pCi/g						
Thallium-208		0.351	+/-0.0728	0.0297	+/-0.0728	0.062	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–009F Project: YANK01204
Sample ID: 175908008 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-010F	Project:	YANK01204
Sample ID:	175908009	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	9.97%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.821	+/-0.132	0.0465	+/-0.132	0.099	pCi/g		MJH1	11/14/06	0905	587667	
Americium-241	U	0.0691	+/-0.101	0.0836	+/-0.101	0.173	pCi/g						
Bismuth-212		0.361	+/-0.198	0.115	+/-0.198	0.242	pCi/g						
Bismuth-214		0.656	+/-0.079	0.0256	+/-0.079	0.0538	pCi/g						
Cesium-134	UI	0.00	+/-0.025	0.0176	+/-0.025	0.037	pCi/g						
Cesium-137		0.387	+/-0.0421	0.0154	+/-0.0421	0.0322	pCi/g						
Cobalt-60		0.0413	+/-0.0386	0.0124	+/-0.0386	0.027	pCi/g						
Europium-152	U	0.0038	+/-0.0403	0.0363	+/-0.0403	0.0758	pCi/g						
Europium-154	U	0.0105	+/-0.053	0.0466	+/-0.053	0.0993	pCi/g						
Europium-155		0.107	+/-0.066	0.0468	+/-0.066	0.0966	pCi/g						
Lead-212		0.737	+/-0.0513	0.0221	+/-0.0513	0.0457	pCi/g						
Lead-214		0.736	+/-0.0722	0.0263	+/-0.0722	0.0548	pCi/g						
Manganese-54	U	0.000289	+/-0.0162	0.0141	+/-0.0162	0.0297	pCi/g						
Niobium-94	U	0.0272	+/-0.0139	0.0136	+/-0.0139	0.0286	pCi/g						
Potassium-40		12.0	+/-0.728	0.131	+/-0.728	0.284	pCi/g						
Radium-226		0.656	+/-0.079	0.0256	+/-0.079	0.0538	pCi/g						
Silver-108m	U	0.000406	+/-0.0143	0.0126	+/-0.0143	0.0264	pCi/g						
Thallium-208		0.249	+/-0.0366	0.0126	+/-0.0366	0.0265	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–010F Project: YANK01204
Sample ID: 175908009 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-013F	Project:	YANK01204
Sample ID:	175908010	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.03	+/-0.141	0.0544	+/-0.141	0.115	pCi/g		MJH1	11/14/06	0905	587667	
Americium-241	U	0.0534	+/-0.0751	0.0634	+/-0.0751	0.130	pCi/g						
Bismuth-212		0.542	+/-0.215	0.122	+/-0.215	0.256	pCi/g						
Bismuth-214		0.762	+/-0.0992	0.0298	+/-0.0992	0.0623	pCi/g						
Cesium-134	UI	0.00	+/-0.0368	0.021	+/-0.0368	0.044	pCi/g						
Cesium-137		0.247	+/-0.0325	0.0146	+/-0.0325	0.0309	pCi/g						
Cobalt-60	U	-0.00451	+/-0.0166	0.0138	+/-0.0166	0.0299	pCi/g						
Europium-152	U	-0.00268	+/-0.0564	0.0419	+/-0.0564	0.0872	pCi/g						
Europium-154	U	-0.0284	+/-0.0546	0.0448	+/-0.0546	0.096	pCi/g						
Europium-155	U	0.074	+/-0.072	0.0493	+/-0.072	0.101	pCi/g						
Lead-212		1.04	+/-0.0606	0.0252	+/-0.0606	0.0519	pCi/g						
Lead-214		0.958	+/-0.0724	0.0297	+/-0.0724	0.0617	pCi/g						
Manganese-54	U	0.0169	+/-0.0276	0.0146	+/-0.0276	0.031	pCi/g						
Niobium-94	U	0.00163	+/-0.0174	0.0147	+/-0.0174	0.0309	pCi/g						
Potassium-40		10.4	+/-0.732	0.134	+/-0.732	0.290	pCi/g						
Radium-226		0.762	+/-0.0992	0.0298	+/-0.0992	0.0623	pCi/g						
Silver-108m	U	-0.00147	+/-0.0162	0.0142	+/-0.0162	0.0296	pCi/g						
Thallium-208		0.333	+/-0.0442	0.0154	+/-0.0442	0.0324	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–013F Project: YANK01204
Sample ID: 175908010 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID:	9522-0002-011F	Project:	YANK01204
Sample ID:	175908011	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N
Rad Gamma Spec Analysis												
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium-228		0.890	+/-0.191	0.0687	+/-0.191	0.152	pCi/g		MJH1 11/14/06	0918	587667	
Americium-241	U	0.0417	+/-0.0428	0.0259	+/-0.0428	0.0538	pCi/g					
Bismuth-212	U	0.234	+/-0.425	0.173	+/-0.425	0.375	pCi/g					
Bismuth-214		0.571	+/-0.105	0.0419	+/-0.105	0.0899	pCi/g					
Cesium-134	U	0.0243	+/-0.0512	0.029	+/-0.0512	0.0623	pCi/g					
Cesium-137		0.797	+/-0.0843	0.0224	+/-0.0843	0.0484	pCi/g					
Cobalt-60	U	0.0382	+/-0.032	0.0301	+/-0.032	0.0658	pCi/g					
Europium-152	U	0.0163	+/-0.0663	0.0513	+/-0.0663	0.109	pCi/g					
Europium-154	U	0.0636	+/-0.0777	0.0666	+/-0.0777	0.149	pCi/g					
Europium-155	UI	0.00	+/-0.073	0.0433	+/-0.073	0.0904	pCi/g					
Lead-212		0.799	+/-0.0727	0.0272	+/-0.0727	0.0572	pCi/g					
Lead-214		0.602	+/-0.103	0.041	+/-0.103	0.0865	pCi/g					
Manganese-54	U	0.00254	+/-0.0269	0.023	+/-0.0269	0.0498	pCi/g					
Niobium-94	U	-0.0119	+/-0.0255	0.021	+/-0.0255	0.0453	pCi/g					
Potassium-40		5.66	+/-0.827	0.179	+/-0.827	0.417	pCi/g					
Radium-226		0.571	+/-0.105	0.0419	+/-0.105	0.0899	pCi/g					
Silver-108m	U	-0.00348	+/-0.0222	0.0182	+/-0.0222	0.0388	pCi/g					
Thallium-208		0.253	+/-0.0508	0.020	+/-0.0508	0.0433	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–011F Project: YANK01204
Sample ID: 175908011 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-014F	Project:	YANK01204
Sample ID:	175908012	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.955	+/-0.232	0.0808	+/-0.232	0.178	pCi/g		MJH1	11/14/06	1108	587667	
Americium-241	U	0.0368	+/-0.109	0.0944	+/-0.109	0.197	pCi/g						
Bismuth-212		0.530	+/-0.376	0.167	+/-0.376	0.366	pCi/g						
Bismuth-214		0.838	+/-0.133	0.0403	+/-0.133	0.0872	pCi/g						
Cesium-134	U	-0.00336	+/-0.0357	0.0254	+/-0.0357	0.0555	pCi/g						
Cesium-137		1.30	+/-0.0987	0.0243	+/-0.0987	0.0525	pCi/g						
Cobalt-60	U	0.0576	+/-0.052	0.0371	+/-0.052	0.0806	pCi/g						
Europium-152	U	0.0355	+/-0.0783	0.0651	+/-0.0783	0.138	pCi/g						
Europium-154	U	0.036	+/-0.0768	0.0694	+/-0.0768	0.156	pCi/g						
Europium-155	U	0.105	+/-0.0974	0.0599	+/-0.0974	0.125	pCi/g						
Lead-212		0.940	+/-0.0893	0.0359	+/-0.0893	0.0751	pCi/g						
Lead-214		0.915	+/-0.148	0.0445	+/-0.148	0.0942	pCi/g						
Manganese-54	U	0.0277	+/-0.034	0.0234	+/-0.034	0.051	pCi/g						
Niobium-94	U	0.0205	+/-0.0261	0.0233	+/-0.0261	0.0501	pCi/g						
Potassium-40		7.26	+/-0.877	0.233	+/-0.877	0.532	pCi/g						
Radium-226		0.838	+/-0.133	0.0403	+/-0.133	0.0872	pCi/g						
Silver-108m	U	0.000144	+/-0.0288	0.0246	+/-0.0288	0.052	pCi/g						
Thallium-208		0.275	+/-0.0644	0.025	+/-0.0644	0.0535	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–014F Project: YANK01204
Sample ID: 175908012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-016F	Project:	YANK01204
Sample ID:	175908013	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	42.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.66	+/-0.206	0.0691	+/-0.206	0.146	pCi/g		MJH1	11/16/06	1237	587667	
Americium-241	U	-0.0204	+/-0.110	0.0858	+/-0.110	0.176	pCi/g						
Bismuth-212		1.01	+/-0.429	0.145	+/-0.429	0.304	pCi/g						
Bismuth-214		1.24	+/-0.127	0.0359	+/-0.127	0.0751	pCi/g						
Cesium-134	UI	0.00	+/-0.0543	0.0272	+/-0.0543	0.0567	pCi/g						
Cesium-137		0.248	+/-0.0378	0.0189	+/-0.0378	0.0397	pCi/g						
Cobalt-60	U	0.0159	+/-0.0189	0.0177	+/-0.0189	0.0384	pCi/g						
Europium-152	U	-0.0274	+/-0.0594	0.0466	+/-0.0594	0.0967	pCi/g						
Europium-154	U	-0.0118	+/-0.0666	0.0547	+/-0.0666	0.118	pCi/g						
Europium-155	U	0.0154	+/-0.0649	0.0556	+/-0.0649	0.114	pCi/g						
Lead-212		1.56	+/-0.0769	0.0282	+/-0.0769	0.0579	pCi/g						
Lead-214		1.32	+/-0.114	0.0341	+/-0.114	0.0706	pCi/g						
Manganese-54	U	0.0195	+/-0.0196	0.019	+/-0.0196	0.040	pCi/g						
Niobium-94	U	-0.000748	+/-0.0225	0.0185	+/-0.0225	0.0388	pCi/g						
Potassium-40		12.2	+/-0.927	0.185	+/-0.927	0.402	pCi/g						
Radium-226		1.24	+/-0.127	0.0359	+/-0.127	0.0751	pCi/g						
Silver-108m	U	0.0126	+/-0.0203	0.0159	+/-0.0203	0.0332	pCi/g						
Thallium-208		0.572	+/-0.059	0.017	+/-0.059	0.0358	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–016F Project: YANK01204
Sample ID: 175908013 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–012F	Project:	YANK01204
Sample ID:	175908014	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	23%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.879	+/–0.188	0.0764	+/–0.188	0.165	pCi/g		MJH1	11/14/06	1110	587667	
Americium–241	U	0.00883	+/–0.105	0.0866	+/–0.105	0.180	pCi/g						
Bismuth–212		0.513	+/–0.272	0.149	+/–0.272	0.322	pCi/g						
Bismuth–214		0.866	+/–0.108	0.0317	+/–0.108	0.0686	pCi/g						
Cesium–134	U	0.0322	+/–0.0266	0.0249	+/–0.0266	0.0534	pCi/g						
Cesium–137		0.762	+/–0.0685	0.0203	+/–0.0685	0.0437	pCi/g						
Cobalt–60	U	0.0126	+/–0.0247	0.0221	+/–0.0247	0.049	pCi/g						
Europium–152	U	0.00418	+/–0.0624	0.0517	+/–0.0624	0.109	pCi/g						
Europium–154	U	0.0438	+/–0.0769	0.069	+/–0.0769	0.151	pCi/g						
Europium–155	U	0.0671	+/–0.0659	0.0609	+/–0.0659	0.126	pCi/g						
Lead–212		0.930	+/–0.0754	0.0295	+/–0.0754	0.0616	pCi/g						
Lead–214		0.828	+/–0.101	0.0332	+/–0.101	0.0704	pCi/g						
Manganese–54	U	–0.00794	+/–0.024	0.0192	+/–0.024	0.0416	pCi/g						
Niobium–94	U	0.000438	+/–0.0233	0.0196	+/–0.0233	0.042	pCi/g						
Potassium–40		9.82	+/–0.928	0.186	+/–0.928	0.421	pCi/g						
Radium–226		0.866	+/–0.108	0.0317	+/–0.108	0.0686	pCi/g						
Silver–108m	U	0.0257	+/–0.0209	0.0197	+/–0.0209	0.0416	pCi/g						
Thallium–208		0.295	+/–0.0511	0.019	+/–0.0511	0.0408	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–012F Project: YANK01204
Sample ID: 175908014 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-015F	Project:	YANK01204
Sample ID:	175908015	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	35.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.01	+/-0.182	0.0642	+/-0.182	0.139	pCi/g		MJH1	11/14/06	1111	587667	
Americium-241	U	-0.0188	+/-0.112	0.0861	+/-0.112	0.177	pCi/g						
Bismuth-212		0.699	+/-0.317	0.147	+/-0.317	0.314	pCi/g						
Bismuth-214		0.786	+/-0.113	0.0423	+/-0.113	0.0889	pCi/g						
Cesium-134	UI	0.00	+/-0.0435	0.0271	+/-0.0435	0.0572	pCi/g						
Cesium-137		1.93	+/-0.0977	0.0202	+/-0.0977	0.043	pCi/g						
Cobalt-60		0.162	+/-0.046	0.0202	+/-0.046	0.0443	pCi/g						
Europium-152	U	-0.0206	+/-0.0674	0.0567	+/-0.0674	0.118	pCi/g						
Europium-154	UI	0.00	+/-0.166	0.0719	+/-0.166	0.154	pCi/g						
Europium-155	U	0.0555	+/-0.0762	0.0549	+/-0.0762	0.113	pCi/g						
Lead-212		1.12	+/-0.0793	0.0298	+/-0.0793	0.0618	pCi/g						
Lead-214		0.919	+/-0.0962	0.0412	+/-0.0962	0.0859	pCi/g						
Manganese-54	UI	0.00	+/-0.032	0.0184	+/-0.032	0.0395	pCi/g						
Niobium-94	U	0.0228	+/-0.0224	0.0197	+/-0.0224	0.0416	pCi/g						
Potassium-40		11.5	+/-0.914	0.142	+/-0.914	0.324	pCi/g						
Radium-226		0.786	+/-0.113	0.0423	+/-0.113	0.0889	pCi/g						
Silver-108m	U	-0.00296	+/-0.025	0.0209	+/-0.025	0.0437	pCi/g						
Thallium-208		0.357	+/-0.0587	0.0195	+/-0.0587	0.0414	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–015F Project: YANK01204
Sample ID: 175908015 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-043F	Project:	YANK01204
Sample ID:	175908016	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	21.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.30	+/-0.217	0.0713	+/-0.217	0.154	pCi/g		MJH1	11/14/06	1111	587667	
Americium-241	U	0.0956	+/-0.117	0.0925	+/-0.117	0.191	pCi/g						
Bismuth-212		0.809	+/-0.397	0.175	+/-0.397	0.372	pCi/g						
Bismuth-214		0.920	+/-0.147	0.0382	+/-0.147	0.0813	pCi/g						
Cesium-134	U	0.045	+/-0.0348	0.0291	+/-0.0348	0.0615	pCi/g						
Cesium-137		0.178	+/-0.0474	0.0205	+/-0.0474	0.0439	pCi/g						
Cobalt-60	U	0.000977	+/-0.0277	0.0228	+/-0.0277	0.0501	pCi/g						
Europium-152	U	-0.0843	+/-0.0743	0.058	+/-0.0743	0.122	pCi/g						
Europium-154	U	-0.00818	+/-0.0755	0.0612	+/-0.0755	0.135	pCi/g						
Europium-155	U	0.115	+/-0.106	0.0665	+/-0.106	0.137	pCi/g						
Lead-212		1.24	+/-0.0833	0.0372	+/-0.0833	0.0769	pCi/g						
Lead-214		1.04	+/-0.107	0.0468	+/-0.107	0.0976	pCi/g						
Manganese-54	U	0.0242	+/-0.0222	0.0224	+/-0.0222	0.0479	pCi/g						
Niobium-94	U	0.019	+/-0.0232	0.021	+/-0.0232	0.0445	pCi/g						
Potassium-40		12.3	+/-1.00	0.191	+/-1.00	0.427	pCi/g						
Radium-226		0.920	+/-0.147	0.0382	+/-0.147	0.0813	pCi/g						
Silver-108m	U	-0.011	+/-0.025	0.0201	+/-0.025	0.0423	pCi/g						
Thallium-208		0.444	+/-0.0579	0.0219	+/-0.0579	0.0463	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–043F Project: YANK01204
Sample ID: 175908016 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–042F	Project:	YANK01204
Sample ID:	175908017	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	26.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.33	+/–0.255	0.0894	+/–0.255	0.198	pCi/g		MJH1	11/14/06	1112	587667	
Americium–241	U	0.0335	+/–0.0406	0.0351	+/–0.0406	0.0728	pCi/g						
Bismuth–212		0.693	+/–0.490	0.182	+/–0.490	0.400	pCi/g						
Bismuth–214		0.907	+/–0.148	0.0567	+/–0.148	0.121	pCi/g						
Cesium–134	UI	0.00	+/–0.0486	0.0398	+/–0.0486	0.0851	pCi/g						
Cesium–137		1.32	+/–0.101	0.0311	+/–0.101	0.0667	pCi/g						
Cobalt–60	U	0.0382	+/–0.0529	0.0364	+/–0.0529	0.0803	pCi/g						
Europium–152	U	0.0036	+/–0.0849	0.0698	+/–0.0849	0.148	pCi/g						
Europium–154	U	–0.0473	+/–0.0903	0.0682	+/–0.0903	0.157	pCi/g						
Europium–155	UI	0.00	+/–0.103	0.0553	+/–0.103	0.116	pCi/g						
Lead–212		1.23	+/–0.0968	0.0408	+/–0.0968	0.0853	pCi/g						
Lead–214		1.08	+/–0.139	0.0564	+/–0.139	0.119	pCi/g						
Manganese–54	UI	0.00	+/–0.0906	0.0228	+/–0.0906	0.0506	pCi/g						
Niobium–94	U	–0.0167	+/–0.0309	0.0242	+/–0.0309	0.0526	pCi/g						
Potassium–40		10.7	+/–1.35	0.278	+/–1.35	0.632	pCi/g						
Radium–226		0.907	+/–0.148	0.0567	+/–0.148	0.121	pCi/g						
Silver–108m	U	–0.0123	+/–0.0284	0.0238	+/–0.0284	0.0508	pCi/g						
Thallium–208		0.338	+/–0.0733	0.0284	+/–0.0733	0.0609	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–042F Project: YANK01204
Sample ID: 175908017 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-041F	Project:	YANK01204
Sample ID:	175908018	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	28.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.01	+/-0.199	0.0503	+/-0.199	0.106	pCi/g		MJH1	11/14/06	1151	587667	
Americium-241	U	0.105	+/-0.154	0.0936	+/-0.154	0.191	pCi/g						
Bismuth-212		0.818	+/-0.250	0.120	+/-0.250	0.250	pCi/g						
Bismuth-214		0.796	+/-0.115	0.0286	+/-0.115	0.0597	pCi/g						
Cesium-134	U	0.0357	+/-0.0235	0.019	+/-0.0235	0.0396	pCi/g						
Cesium-137		1.29	+/-0.117	0.0148	+/-0.117	0.031	pCi/g						
Cobalt-60	U	0.0295	+/-0.020	0.0187	+/-0.020	0.0396	pCi/g						
Europium-152	U	-0.0262	+/-0.0587	0.0419	+/-0.0587	0.0864	pCi/g						
Europium-154	U	-0.0245	+/-0.0553	0.0454	+/-0.0553	0.0969	pCi/g						
Europium-155	U	0.0852	+/-0.0565	0.048	+/-0.0565	0.0979	pCi/g						
Lead-212		1.06	+/-0.107	0.0229	+/-0.107	0.0471	pCi/g						
Lead-214		0.932	+/-0.119	0.0306	+/-0.119	0.0631	pCi/g						
Manganese-54	UI	0.00	+/-0.0203	0.0135	+/-0.0203	0.0285	pCi/g						
Niobium-94	U	0.000692	+/-0.0153	0.014	+/-0.0153	0.0292	pCi/g						
Potassium-40		8.89	+/-0.901	0.136	+/-0.901	0.294	pCi/g						
Radium-226		0.796	+/-0.115	0.0286	+/-0.115	0.0597	pCi/g						
Silver-108m	U	-0.00843	+/-0.0188	0.0152	+/-0.0188	0.0313	pCi/g						
Thallium-208		0.289	+/-0.0492	0.0152	+/-0.0492	0.0316	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–041F Project: YANK01204
Sample ID: 175908018 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–039F	Project:	YANK01204
Sample ID:	175908019	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	43.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.967	+/–0.246	0.0749	+/–0.246	0.162	pCi/g		MJH1	11/14/06	1152	587667	
Americium–241	U	–0.0936	+/–0.104	0.0819	+/–0.104	0.168	pCi/g						
Bismuth–212		0.665	+/–0.402	0.159	+/–0.402	0.341	pCi/g						
Bismuth–214		0.805	+/–0.141	0.0481	+/–0.141	0.101	pCi/g						
Cesium–134	UI	0.00	+/–0.0574	0.0297	+/–0.0574	0.0627	pCi/g						
Cesium–137		4.77	+/–0.428	0.0256	+/–0.428	0.054	pCi/g						
Cobalt–60		0.245	+/–0.0679	0.0235	+/–0.0679	0.0516	pCi/g						
Europium–152	U	0.0176	+/–0.0987	0.0826	+/–0.0987	0.171	pCi/g						
Europium–154	U	–0.0197	+/–0.0779	0.063	+/–0.0779	0.139	pCi/g						
Europium–155	U	0.0172	+/–0.0836	0.0677	+/–0.0836	0.139	pCi/g						
Lead–212		0.880	+/–0.106	0.0419	+/–0.106	0.0863	pCi/g						
Lead–214		0.774	+/–0.136	0.0555	+/–0.136	0.115	pCi/g						
Manganese–54	U	–0.0161	+/–0.0295	0.0227	+/–0.0295	0.0485	pCi/g						
Niobium–94	U	–0.00342	+/–0.026	0.0209	+/–0.026	0.0444	pCi/g						
Potassium–40		9.25	+/–1.02	0.206	+/–1.02	0.458	pCi/g						
Radium–226		0.805	+/–0.141	0.0481	+/–0.141	0.101	pCi/g						
Silver–108m	U	–0.0125	+/–0.0354	0.0288	+/–0.0354	0.0597	pCi/g						
Thallium–208		0.296	+/–0.0667	0.0242	+/–0.0667	0.051	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–039F Project: YANK01204
Sample ID: 175908019 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-040F	Project:	YANK01204
Sample ID:	175908020	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.03	+/-0.252	0.0746	+/-0.252	0.160	pCi/g		MJH1	11/16/06	1239	587667	
Americium-241	U	-0.0423	+/-0.0782	0.0607	+/-0.0782	0.125	pCi/g						
Bismuth-212		0.533	+/-0.291	0.129	+/-0.291	0.278	pCi/g						
Bismuth-214		1.01	+/-0.153	0.034	+/-0.153	0.0725	pCi/g						
Cesium-134	Ul	0.00	+/-0.0497	0.0239	+/-0.0497	0.0508	pCi/g						
Cesium-137		2.72	+/-0.261	0.0205	+/-0.261	0.0435	pCi/g						
Cobalt-60		0.0539	+/-0.0506	0.0186	+/-0.0506	0.0412	pCi/g						
Europium-152	U	0.0155	+/-0.0663	0.0545	+/-0.0663	0.114	pCi/g						
Europium-154	U	0.00627	+/-0.064	0.0545	+/-0.064	0.120	pCi/g						
Europium-155	U	0.0776	+/-0.0657	0.0537	+/-0.0657	0.111	pCi/g						
Lead-212		1.06	+/-0.112	0.0278	+/-0.112	0.0578	pCi/g						
Lead-214		1.05	+/-0.156	0.0408	+/-0.156	0.0851	pCi/g						
Manganese-54	U	0.00359	+/-0.025	0.0183	+/-0.025	0.0395	pCi/g						
Niobium-94	U	0.017	+/-0.0256	0.0174	+/-0.0256	0.0372	pCi/g						
Potassium-40		7.95	+/-0.914	0.182	+/-0.914	0.405	pCi/g						
Radium-226		1.01	+/-0.153	0.034	+/-0.153	0.0725	pCi/g						
Silver-108m	U	-0.0187	+/-0.0257	0.0196	+/-0.0257	0.0412	pCi/g						
Thallium-208		0.349	+/-0.0708	0.0191	+/-0.0708	0.0406	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1408	587565

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–040F Project: YANK01204
Sample ID: 175908020 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-038F	Project:	YANK01204
Sample ID:	175908021	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	24.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.907	+/-0.219	0.0716	+/-0.219	0.143	pCi/g		MJH1	11/13/06	1446	587668	
Americium-241	U	0.148	+/-0.0979	0.0743	+/-0.0979	0.149	pCi/g						
Bismuth-212	UI	0.00	+/-0.381	0.149	+/-0.381	0.298	pCi/g						
Bismuth-214		0.665	+/-0.127	0.0384	+/-0.127	0.0767	pCi/g						
Cesium-134	UI	0.00	+/-0.0437	0.0262	+/-0.0437	0.0523	pCi/g						
Cesium-137		2.47	+/-0.219	0.0214	+/-0.219	0.0428	pCi/g						
Cobalt-60	U	0.030	+/-0.0446	0.0239	+/-0.0446	0.0478	pCi/g						
Europium-152	U	-0.0459	+/-0.0949	0.0622	+/-0.0949	0.124	pCi/g						
Europium-154	U	0.0767	+/-0.0475	0.0628	+/-0.0475	0.125	pCi/g						
Europium-155	U	0.0569	+/-0.0727	0.0606	+/-0.0727	0.121	pCi/g						
Lead-212		0.957	+/-0.112	0.0356	+/-0.112	0.0712	pCi/g						
Lead-214		0.922	+/-0.143	0.0477	+/-0.143	0.0953	pCi/g						
Manganese-54	U	0.00289	+/-0.0248	0.021	+/-0.0248	0.042	pCi/g						
Niobium-94	U	0.0095	+/-0.0243	0.0211	+/-0.0243	0.0421	pCi/g						
Potassium-40		9.03	+/-0.983	0.222	+/-0.983	0.443	pCi/g						
Radium-226		0.665	+/-0.127	0.0384	+/-0.127	0.0767	pCi/g						
Silver-108m	U	-0.00669	+/-0.0291	0.0237	+/-0.0291	0.0474	pCi/g						
Thallium-208		0.316	+/-0.0674	0.0213	+/-0.0674	0.0426	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–038F Project: YANK01204
Sample ID: 175908021 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-037F	Project:	YANK01204
Sample ID:	175908022	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	41.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.715	+/-0.142	0.052	+/-0.142	0.109	pCi/g		MJH1	11/13/06	1957	587668	
Americium-241	U	-0.0445	+/-0.0839	0.0588	+/-0.0839	0.120	pCi/g						
Bismuth-212		0.510	+/-0.281	0.122	+/-0.281	0.255	pCi/g						
Bismuth-214		0.557	+/-0.107	0.0365	+/-0.107	0.0752	pCi/g						
Cesium-134	U	0.0311	+/-0.0263	0.0185	+/-0.0263	0.0384	pCi/g						
Cesium-137		7.37	+/-0.128	0.0183	+/-0.128	0.0379	pCi/g						
Cobalt-60		0.299	+/-0.0443	0.0162	+/-0.0443	0.0343	pCi/g						
Europium-152	U	0.062	+/-0.0664	0.0539	+/-0.0664	0.110	pCi/g						
Europium-154	U	-0.00784	+/-0.0561	0.0462	+/-0.0561	0.0976	pCi/g						
Europium-155	U	-0.00892	+/-0.071	0.0491	+/-0.071	0.100	pCi/g						
Lead-212		0.702	+/-0.0634	0.0283	+/-0.0634	0.0577	pCi/g						
Lead-214		0.646	+/-0.0964	0.0376	+/-0.0964	0.077	pCi/g						
Manganese-54	U	0.0153	+/-0.021	0.0157	+/-0.021	0.0328	pCi/g						
Niobium-94	U	0.00475	+/-0.0197	0.0159	+/-0.0197	0.0329	pCi/g						
Potassium-40		5.84	+/-0.664	0.144	+/-0.664	0.307	pCi/g						
Radium-226		0.557	+/-0.107	0.0365	+/-0.107	0.0752	pCi/g						
Silver-108m	U	-0.00204	+/-0.0257	0.0211	+/-0.0257	0.0431	pCi/g						
Thallium-208		0.166	+/-0.0431	0.0176	+/-0.0431	0.0363	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–037F Project: YANK01204
Sample ID: 175908022 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-036F	Project:	YANK01204
Sample ID:	175908023	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	49.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.804	+/-0.263	0.102	+/-0.263	0.203	pCi/g		MJH1	11/13/06	1959	587668	
Americium-241	U	0.0349	+/-0.0498	0.0341	+/-0.0498	0.0681	pCi/g						
Bismuth-212		0.719	+/-0.377	0.207	+/-0.377	0.414	pCi/g						
Bismuth-214		0.504	+/-0.146	0.0536	+/-0.146	0.107	pCi/g						
Cesium-134	U	0.060	+/-0.0563	0.034	+/-0.0563	0.0679	pCi/g						
Cesium-137		6.41	+/-0.632	0.0305	+/-0.632	0.061	pCi/g						
Cobalt-60		0.341	+/-0.0788	0.0297	+/-0.0788	0.0595	pCi/g						
Europium-152	U	0.0512	+/-0.132	0.082	+/-0.132	0.164	pCi/g						
Europium-154	U	-0.0158	+/-0.125	0.100	+/-0.125	0.200	pCi/g						
Europium-155	U	0.00767	+/-0.0857	0.0573	+/-0.0857	0.115	pCi/g						
Lead-212		0.714	+/-0.108	0.0405	+/-0.108	0.081	pCi/g						
Lead-214		0.624	+/-0.162	0.0581	+/-0.162	0.116	pCi/g						
Manganese-54	U	0.0097	+/-0.0368	0.0307	+/-0.0368	0.0613	pCi/g						
Niobium-94	U	-0.00682	+/-0.0322	0.0262	+/-0.0322	0.0524	pCi/g						
Potassium-40		7.31	+/-1.07	0.332	+/-1.07	0.663	pCi/g						
Radium-226		0.504	+/-0.146	0.0536	+/-0.146	0.107	pCi/g						
Silver-108m	U	0.0187	+/-0.0439	0.0354	+/-0.0439	0.0708	pCi/g						
Thallium-208		0.243	+/-0.0774	0.0296	+/-0.0774	0.0591	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–036F Project: YANK01204
Sample ID: 175908023 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-030F	Project:	YANK01204
Sample ID:	175908024	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	40.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.890	+/-0.164	0.0613	+/-0.164	0.130	pCi/g		MJH1	11/13/06	1957	587668	
Americium-241	U	0.0554	+/-0.116	0.0895	+/-0.116	0.183	pCi/g						
Bismuth-212		0.624	+/-0.266	0.132	+/-0.266	0.278	pCi/g						
Bismuth-214		0.806	+/-0.113	0.0341	+/-0.113	0.0712	pCi/g						
Cesium-134	U	0.0447	+/-0.0347	0.023	+/-0.0347	0.0482	pCi/g						
Cesium-137		4.11	+/-0.117	0.0194	+/-0.117	0.0406	pCi/g						
Cobalt-60		0.0924	+/-0.0436	0.0185	+/-0.0436	0.040	pCi/g						
Europium-152	U	0.0114	+/-0.0701	0.0556	+/-0.0701	0.115	pCi/g						
Europium-154	U	-0.0125	+/-0.0707	0.0574	+/-0.0707	0.123	pCi/g						
Europium-155	U	0.0398	+/-0.0827	0.0511	+/-0.0827	0.105	pCi/g						
Lead-212		0.899	+/-0.0666	0.0276	+/-0.0666	0.0568	pCi/g						
Lead-214		0.975	+/-0.112	0.0395	+/-0.112	0.0816	pCi/g						
Manganese-54	U	0.0198	+/-0.0235	0.0199	+/-0.0235	0.0417	pCi/g						
Niobium-94	U	0.027	+/-0.0213	0.0186	+/-0.0213	0.0387	pCi/g						
Potassium-40		10.5	+/-0.812	0.146	+/-0.812	0.323	pCi/g						
Radium-226		0.806	+/-0.113	0.0341	+/-0.113	0.0712	pCi/g						
Silver-108m	U	-0.0133	+/-0.0246	0.0201	+/-0.0246	0.0416	pCi/g						
Thallium-208		0.245	+/-0.0545	0.0185	+/-0.0545	0.0387	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–030F Project: YANK01204
Sample ID: 175908024 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-033F	Project:	YANK01204
Sample ID:	175908025	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	39.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.835	+/-0.257	0.0888	+/-0.257	0.186	pCi/g		MJH1	11/13/06	1958	587668	
Americium-241	U	0.0381	+/-0.0495	0.0309	+/-0.0495	0.063	pCi/g						
Bismuth-212		0.520	+/-0.368	0.188	+/-0.368	0.391	pCi/g						
Bismuth-214		0.864	+/-0.158	0.048	+/-0.158	0.0993	pCi/g						
Cesium-134	U	0.0462	+/-0.0494	0.0285	+/-0.0494	0.0593	pCi/g						
Cesium-137		5.49	+/-0.145	0.0259	+/-0.145	0.0538	pCi/g						
Cobalt-60		0.122	+/-0.0595	0.0273	+/-0.0595	0.0576	pCi/g						
Europium-152	U	0.0526	+/-0.0847	0.0682	+/-0.0847	0.140	pCi/g						
Europium-154	U	0.101	+/-0.0883	0.0777	+/-0.0883	0.164	pCi/g						
Europium-155	UI	0.00	+/-0.0982	0.0481	+/-0.0982	0.0983	pCi/g						
Lead-212		0.725	+/-0.0869	0.0436	+/-0.0869	0.0888	pCi/g						
Lead-214		0.922	+/-0.132	0.0486	+/-0.132	0.0996	pCi/g						
Manganese-54	U	-0.0219	+/-0.0329	0.0254	+/-0.0329	0.0528	pCi/g						
Niobium-94	U	0.0197	+/-0.0289	0.0241	+/-0.0289	0.050	pCi/g						
Potassium-40		5.23	+/-0.839	0.211	+/-0.839	0.452	pCi/g						
Radium-226		0.864	+/-0.158	0.048	+/-0.158	0.0993	pCi/g						
Silver-108m	U	-0.00419	+/-0.0312	0.026	+/-0.0312	0.0533	pCi/g						
Thallium-208		0.333	+/-0.0728	0.0243	+/-0.0728	0.0503	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–033F Project: YANK01204
Sample ID: 175908025 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-034F	Project:	YANK01204
Sample ID:	175908026	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.02	+/-0.196	0.0627	+/-0.196	0.135	pCi/g		MJH1	11/14/06	0646	587668	
Americium-241	U	0.0954	+/-0.150	0.087	+/-0.150	0.179	pCi/g						
Bismuth-212		0.454	+/-0.326	0.171	+/-0.326	0.359	pCi/g						
Bismuth-214		0.793	+/-0.110	0.0389	+/-0.110	0.0817	pCi/g						
Cesium-134	UI	0.00	+/-0.0531	0.0262	+/-0.0531	0.0552	pCi/g						
Cesium-137		2.17	+/-0.103	0.0212	+/-0.103	0.0446	pCi/g						
Cobalt-60		0.126	+/-0.0558	0.0206	+/-0.0558	0.0448	pCi/g						
Europium-152	U	0.0453	+/-0.0736	0.0612	+/-0.0736	0.127	pCi/g						
Europium-154	U	0.0149	+/-0.0707	0.0607	+/-0.0707	0.131	pCi/g						
Europium-155	U	0.0196	+/-0.0632	0.0545	+/-0.0632	0.112	pCi/g						
Lead-212		0.901	+/-0.0755	0.0317	+/-0.0755	0.0654	pCi/g						
Lead-214		1.02	+/-0.125	0.0429	+/-0.125	0.0888	pCi/g						
Manganese-54	U	0.0175	+/-0.0295	0.0178	+/-0.0295	0.038	pCi/g						
Niobium-94	U	-0.00608	+/-0.0217	0.0177	+/-0.0217	0.0375	pCi/g						
Potassium-40		7.94	+/-0.947	0.193	+/-0.947	0.423	pCi/g						
Radium-226		0.793	+/-0.110	0.0389	+/-0.110	0.0817	pCi/g						
Silver-108m	U	0.0369	+/-0.0269	0.0229	+/-0.0269	0.0475	pCi/g						
Thallium-208		0.306	+/-0.0595	0.0217	+/-0.0595	0.0454	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–034F Project: YANK01204
Sample ID: 175908026 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-035F	Project:	YANK01204
Sample ID:	175908027	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	48.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.797	+/-0.179	0.0592	+/-0.179	0.127	pCi/g		MJH1	11/14/06	0646	587668	
Americium-241	U	0.038	+/-0.0964	0.081	+/-0.0964	0.166	pCi/g						
Bismuth-212		0.462	+/-0.292	0.129	+/-0.292	0.274	pCi/g						
Bismuth-214		0.671	+/-0.111	0.0406	+/-0.111	0.0845	pCi/g						
Cesium-134	U	0.0395	+/-0.0405	0.022	+/-0.0405	0.0463	pCi/g						
Cesium-137		5.88	+/-0.141	0.0207	+/-0.141	0.0433	pCi/g						
Cobalt-60		0.106	+/-0.0413	0.0181	+/-0.0413	0.0394	pCi/g						
Europium-152	U	-0.059	+/-0.0732	0.0596	+/-0.0732	0.123	pCi/g						
Europium-154	U	0.00197	+/-0.069	0.0567	+/-0.069	0.122	pCi/g						
Europium-155	U	0.0192	+/-0.0642	0.0531	+/-0.0642	0.109	pCi/g						
Lead-212		0.722	+/-0.0697	0.0311	+/-0.0697	0.0638	pCi/g						
Lead-214		0.840	+/-0.107	0.0439	+/-0.107	0.0904	pCi/g						
Manganese-54	U	0.0152	+/-0.0212	0.0187	+/-0.0212	0.0395	pCi/g						
Niobium-94	U	0.000336	+/-0.0195	0.0158	+/-0.0195	0.0333	pCi/g						
Potassium-40		6.61	+/-0.662	0.151	+/-0.662	0.334	pCi/g						
Radium-226		0.671	+/-0.111	0.0406	+/-0.111	0.0845	pCi/g						
Silver-108m	U	0.0202	+/-0.0287	0.0244	+/-0.0287	0.0503	pCi/g						
Thallium-208		0.266	+/-0.0527	0.0207	+/-0.0527	0.0432	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–035F Project: YANK01204
Sample ID: 175908027 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-032F	Project:	YANK01204
Sample ID:	175908028	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	45.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	M
Rad Gamma Spec Analysis												
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium-228		0.572	+/-0.220	0.0738	+/-0.220	0.160	pCi/g		MJH1 11/14/06	0646	587668	
Americium-241		0.0963	+/-0.063	0.027	+/-0.063	0.0558	pCi/g					
Bismuth-212		0.486	+/-0.376	0.158	+/-0.376	0.340	pCi/g					
Bismuth-214		0.680	+/-0.143	0.0463	+/-0.143	0.0978	pCi/g					
Cesium-134	UI	0.00	+/-0.0477	0.0301	+/-0.0477	0.0638	pCi/g					
Cesium-137		9.07	+/-0.210	0.0257	+/-0.210	0.0545	pCi/g					
Cobalt-60		0.308	+/-0.059	0.0205	+/-0.059	0.046	pCi/g					
Europium-152	U	0.0753	+/-0.0929	0.0768	+/-0.0929	0.159	pCi/g					
Europium-154	U	0.0372	+/-0.0749	0.0655	+/-0.0749	0.144	pCi/g					
Europium-155	U	0.0777	+/-0.0582	0.0516	+/-0.0582	0.106	pCi/g					
Lead-212		0.788	+/-0.0763	0.0375	+/-0.0763	0.0774	pCi/g					
Lead-214		0.717	+/-0.141	0.0567	+/-0.141	0.117	pCi/g					
Manganese-54	U	-0.0101	+/-0.0298	0.0232	+/-0.0298	0.0497	pCi/g					
Niobium-94	U	0.0172	+/-0.0246	0.0212	+/-0.0246	0.045	pCi/g					
Potassium-40		6.78	+/-0.936	0.206	+/-0.936	0.462	pCi/g					
Radium-226		0.680	+/-0.143	0.0463	+/-0.143	0.0978	pCi/g					
Silver-108m	U	-0.0175	+/-0.0379	0.0314	+/-0.0379	0.0649	pCi/g					
Thallium-208		0.294	+/-0.0584	0.0245	+/-0.0584	0.0517	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–032F Project: YANK01204
Sample ID: 175908028 Client ID: YANK001
Vol. Recv.:

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

> 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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–029F	Project:	YANK01204
Sample ID:	175908029	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	23.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.871	+/–0.309	0.116	+/–0.309	0.251	pCi/g		MJH1	11/13/06	1657	587668	
Americium–241	U	–0.0207	+/–0.049	0.041	+/–0.049	0.0852	pCi/g						
Bismuth–212		0.958	+/–0.486	0.224	+/–0.486	0.486	pCi/g						
Bismuth–214		0.685	+/–0.192	0.0611	+/–0.192	0.130	pCi/g						
Cesium–134	U	0.00425	+/–0.0494	0.0361	+/–0.0494	0.0779	pCi/g						
Cesium–137		1.08	+/–0.107	0.0402	+/–0.107	0.0851	pCi/g						
Cobalt–60	U	0.0706	+/–0.0832	0.0351	+/–0.0832	0.0775	pCi/g						
Europium–152	U	0.103	+/–0.0996	0.0887	+/–0.0996	0.186	pCi/g						
Europium–154	U	–0.0285	+/–0.133	0.0923	+/–0.133	0.205	pCi/g						
Europium–155	U	0.104	+/–0.113	0.0665	+/–0.113	0.139	pCi/g						
Lead–212		0.753	+/–0.115	0.060	+/–0.115	0.124	pCi/g						
Lead–214		0.889	+/–0.159	0.0574	+/–0.159	0.121	pCi/g						
Manganese–54	U	0.020	+/–0.0398	0.0344	+/–0.0398	0.074	pCi/g						
Niobium–94	U	0.0141	+/–0.0385	0.0333	+/–0.0385	0.0708	pCi/g						
Potassium–40		9.44	+/–1.35	0.295	+/–1.35	0.664	pCi/g						
Radium–226		0.685	+/–0.192	0.0611	+/–0.192	0.130	pCi/g						
Silver–108m	U	0.006	+/–0.0318	0.0282	+/–0.0318	0.0599	pCi/g						
Thallium–208		0.347	+/–0.0751	0.0327	+/–0.0751	0.0698	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–029F Project: YANK01204
Sample ID: 175908029 Client ID: YANK001
Vol. Recv.:

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

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-031F	Project:	YANK01204
Sample ID:	175908030	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.921	+/-0.274	0.0842	+/-0.274	0.186	pCi/g		MJH1	11/13/06	1658	587668	
Americium-241	U	0.00898	+/-0.0396	0.0313	+/-0.0396	0.065	pCi/g						
Bismuth-212		0.529	+/-0.342	0.203	+/-0.342	0.439	pCi/g						
Bismuth-214		0.937	+/-0.128	0.0426	+/-0.128	0.0924	pCi/g						
Cesium-134	U	0.0487	+/-0.0433	0.0341	+/-0.0433	0.0732	pCi/g						
Cesium-137		0.983	+/-0.0904	0.0289	+/-0.0904	0.062	pCi/g						
Cobalt-60	U	0.0211	+/-0.0315	0.0288	+/-0.0315	0.0645	pCi/g						
Europium-152	U	0.0676	+/-0.0814	0.0642	+/-0.0814	0.136	pCi/g						
Europium-154	U	-0.0865	+/-0.0927	0.0659	+/-0.0927	0.150	pCi/g						
Europium-155	U	-0.0357	+/-0.0557	0.0487	+/-0.0557	0.102	pCi/g						
Lead-212		0.940	+/-0.083	0.0347	+/-0.083	0.0728	pCi/g						
Lead-214		1.13	+/-0.116	0.0417	+/-0.116	0.089	pCi/g						
Manganese-54	U	0.00294	+/-0.0311	0.0258	+/-0.0311	0.0562	pCi/g						
Niobium-94	U	5.690E-05	+/-0.029	0.0242	+/-0.029	0.0522	pCi/g						
Potassium-40		11.9	+/-1.25	0.222	+/-1.25	0.513	pCi/g						
Radium-226		0.937	+/-0.128	0.0426	+/-0.128	0.0924	pCi/g						
Silver-108m	U	0.0136	+/-0.0259	0.0234	+/-0.0259	0.0499	pCi/g						
Thallium-208		0.300	+/-0.0573	0.0236	+/-0.0573	0.051	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–031F Project: YANK01204
Sample ID: 175908030 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID:	9522-0002-044F	Project:	YANK01204
Sample ID:	175908031	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	24.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.14	+/-0.303	0.133	+/-0.303	0.291	pCi/g		MJH1	11/13/06	1658	587668	
Americium-241	U	0.0454	+/-0.0509	0.0451	+/-0.0509	0.0938	pCi/g						
Bismuth-212		0.885	+/-0.499	0.303	+/-0.499	0.656	pCi/g						
Bismuth-214		0.926	+/-0.187	0.0626	+/-0.187	0.136	pCi/g						
Cesium-134	U	0.0604	+/-0.0595	0.0419	+/-0.0595	0.0913	pCi/g						
Cesium-137		2.89	+/-0.182	0.0339	+/-0.182	0.0741	pCi/g						
Cobalt-60		0.175	+/-0.0676	0.0291	+/-0.0676	0.0682	pCi/g						
Europium-152	U	-0.024	+/-0.113	0.0834	+/-0.113	0.178	pCi/g						
Europium-154	U	0.0332	+/-0.130	0.110	+/-0.130	0.248	pCi/g						
Europium-155	U	0.166	+/-0.113	0.080	+/-0.113	0.167	pCi/g						
Lead-212		0.992	+/-0.104	0.0417	+/-0.104	0.0882	pCi/g						
Lead-214		0.932	+/-0.177	0.0628	+/-0.177	0.134	pCi/g						
Manganese-54	U	0.00424	+/-0.0403	0.0345	+/-0.0403	0.0759	pCi/g						
Niobium-94	U	-0.0159	+/-0.034	0.0276	+/-0.034	0.061	pCi/g						
Potassium-40		11.0	+/-1.41	0.292	+/-1.41	0.685	pCi/g						
Radium-226		0.926	+/-0.187	0.0626	+/-0.187	0.136	pCi/g						
Silver-108m	U	-0.00643	+/-0.0404	0.0331	+/-0.0404	0.0706	pCi/g						
Thallium-208		0.319	+/-0.0983	0.0356	+/-0.0983	0.077	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–044F Project: YANK01204
Sample ID: 175908031 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-024F	Project:	YANK01204
Sample ID:	175908032	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	5.74%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.00	+/-0.254	0.104	+/-0.254	0.207	pCi/g		MJH1	11/13/06	1700	587668	
Americium-241	U	0.116	+/-0.108	0.0954	+/-0.108	0.191	pCi/g						
Bismuth-212		0.529	+/-0.335	0.220	+/-0.335	0.440	pCi/g						
Bismuth-214		0.707	+/-0.141	0.0471	+/-0.141	0.0942	pCi/g						
Cesium-134	U	0.0498	+/-0.0473	0.035	+/-0.0473	0.070	pCi/g						
Cesium-137		0.346	+/-0.0651	0.0279	+/-0.0651	0.0557	pCi/g						
Cobalt-60		0.742	+/-0.106	0.0267	+/-0.106	0.0533	pCi/g						
Europium-152	U	0.0148	+/-0.104	0.0755	+/-0.104	0.151	pCi/g						
Europium-154	U	0.0505	+/-0.107	0.0946	+/-0.107	0.189	pCi/g						
Europium-155	U	-0.0302	+/-0.0847	0.0726	+/-0.0847	0.145	pCi/g						
Lead-212		0.903	+/-0.117	0.040	+/-0.117	0.080	pCi/g						
Lead-214		0.805	+/-0.139	0.0511	+/-0.139	0.102	pCi/g						
Manganese-54	U	-0.00785	+/-0.0333	0.0283	+/-0.0333	0.0566	pCi/g						
Niobium-94	U	-0.0187	+/-0.0305	0.0241	+/-0.0305	0.0482	pCi/g						
Potassium-40		11.8	+/-1.37	0.200	+/-1.37	0.400	pCi/g						
Radium-226		0.707	+/-0.141	0.0471	+/-0.141	0.0942	pCi/g						
Silver-108m	U	-0.0203	+/-0.0291	0.0238	+/-0.0291	0.0476	pCi/g						
Thallium-208		0.292	+/-0.0675	0.0265	+/-0.0675	0.053	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–024F Project: YANK01204
Sample ID: 175908032 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-025F	Project:	YANK01204
Sample ID:	175908033	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	7.49%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.863	+/-0.169	0.0773	+/-0.169	0.167	pCi/g		MJH1	11/14/06	0535	587668	
Americium-241	U	0.0186	+/-0.121	0.0954	+/-0.121	0.198	pCi/g						
Bismuth-212		0.641	+/-0.329	0.147	+/-0.329	0.317	pCi/g						
Bismuth-214		0.680	+/-0.116	0.0365	+/-0.116	0.078	pCi/g						
Cesium-134	UI	0.00	+/-0.044	0.0277	+/-0.044	0.0588	pCi/g						
Cesium-137		0.803	+/-0.0793	0.0197	+/-0.0793	0.0424	pCi/g						
Cobalt-60		0.377	+/-0.0643	0.0224	+/-0.0643	0.0494	pCi/g						
Europium-152	U	-0.0469	+/-0.0648	0.0514	+/-0.0648	0.108	pCi/g						
Europium-154	U	0.0409	+/-0.0728	0.0655	+/-0.0728	0.144	pCi/g						
Europium-155	U	0.0564	+/-0.0634	0.0595	+/-0.0634	0.123	pCi/g						
Lead-212		0.940	+/-0.0728	0.0349	+/-0.0728	0.0725	pCi/g						
Lead-214		0.883	+/-0.110	0.042	+/-0.110	0.0881	pCi/g						
Manganese-54	U	-0.0177	+/-0.0278	0.0217	+/-0.0278	0.0466	pCi/g						
Niobium-94	U	0.0264	+/-0.0228	0.021	+/-0.0228	0.0447	pCi/g						
Potassium-40		11.1	+/-1.01	0.199	+/-1.01	0.446	pCi/g						
Radium-226		0.680	+/-0.116	0.0365	+/-0.116	0.078	pCi/g						
Silver-108m	U	0.00513	+/-0.0219	0.0195	+/-0.0219	0.0412	pCi/g						
Thallium-208		0.337	+/-0.0577	0.0215	+/-0.0577	0.0457	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–025F Project: YANK01204
Sample ID: 175908033 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-026F	Project:	YANK01204
Sample ID:	175908034	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.17	+/-0.226	0.0745	+/-0.226	0.164	pCi/g		MJH1	11/14/06	0535	587668	
Americium-241	U	0.00877	+/-0.0365	0.0323	+/-0.0365	0.0667	pCi/g						
Bismuth-212		0.850	+/-0.452	0.187	+/-0.452	0.403	pCi/g						
Bismuth-214		0.968	+/-0.145	0.0444	+/-0.145	0.0949	pCi/g						
Cesium-134	U	0.058	+/-0.0356	0.0335	+/-0.0356	0.0712	pCi/g						
Cesium-137		0.183	+/-0.0772	0.0263	+/-0.0772	0.0562	pCi/g						
Cobalt-60	U	0.00733	+/-0.0294	0.0255	+/-0.0294	0.0566	pCi/g						
Europium-152	U	-0.00524	+/-0.0703	0.0609	+/-0.0703	0.128	pCi/g						
Europium-154	U	0.0663	+/-0.0714	0.0841	+/-0.0714	0.183	pCi/g						
Europium-155	U	0.0631	+/-0.101	0.0553	+/-0.101	0.115	pCi/g						
Lead-212		1.14	+/-0.0888	0.0331	+/-0.0888	0.0692	pCi/g						
Lead-214		0.916	+/-0.140	0.0416	+/-0.140	0.0878	pCi/g						
Manganese-54	U	0.0153	+/-0.033	0.0283	+/-0.033	0.0604	pCi/g						
Niobium-94	U	-0.00778	+/-0.0286	0.0233	+/-0.0286	0.0497	pCi/g						
Potassium-40		10.6	+/-1.10	0.227	+/-1.10	0.510	pCi/g						
Radium-226		0.968	+/-0.145	0.0444	+/-0.145	0.0949	pCi/g						
Silver-108m	U	0.0262	+/-0.0241	0.0222	+/-0.0241	0.0469	pCi/g						
Thallium-208		0.366	+/-0.0767	0.0222	+/-0.0767	0.0477	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–026F Project: YANK01204
Sample ID: 175908034 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-027F	Project:	YANK01204
Sample ID:	175908035	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.777	+/-0.292	0.0955	+/-0.292	0.204	pCi/g		MJH1	11/14/06	0536	587668	
Americium-241	U	0.0213	+/-0.0449	0.0363	+/-0.0449	0.0746	pCi/g						
Bismuth-212		0.509	+/-0.378	0.193	+/-0.378	0.412	pCi/g						
Bismuth-214		0.828	+/-0.136	0.0473	+/-0.136	0.100	pCi/g						
Cesium-134	U	0.0717	+/-0.070	0.0362	+/-0.070	0.0761	pCi/g						
Cesium-137		0.329	+/-0.0663	0.0293	+/-0.0663	0.0618	pCi/g						
Cobalt-60	U	0.0227	+/-0.0331	0.0295	+/-0.0331	0.0639	pCi/g						
Europium-152	U	0.0549	+/-0.0625	0.062	+/-0.0625	0.130	pCi/g						
Europium-154	U	0.0107	+/-0.102	0.0861	+/-0.102	0.185	pCi/g						
Europium-155	UI	0.00	+/-0.0951	0.0517	+/-0.0951	0.107	pCi/g						
Lead-212		0.892	+/-0.092	0.0518	+/-0.092	0.106	pCi/g						
Lead-214		0.899	+/-0.113	0.0497	+/-0.113	0.104	pCi/g						
Manganese-54	U	0.0106	+/-0.0364	0.0271	+/-0.0364	0.0576	pCi/g						
Niobium-94	U	0.0309	+/-0.033	0.0264	+/-0.033	0.0557	pCi/g						
Potassium-40		11.9	+/-1.08	0.232	+/-1.08	0.512	pCi/g						
Radium-226		0.828	+/-0.136	0.0473	+/-0.136	0.100	pCi/g						
Silver-108m	U	0.00665	+/-0.0254	0.0226	+/-0.0254	0.0476	pCi/g						
Thallium-208		0.338	+/-0.0783	0.0272	+/-0.0783	0.0574	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–027F Project: YANK01204
Sample ID: 175908035 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

> 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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-028F	Project:	YANK01204
Sample ID:	175908036	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.10	+/-0.172	0.0516	+/-0.172	0.109	pCi/g		MJH1	11/14/06	0536	587668	
Americium-241	U	-0.0595	+/-0.120	0.0857	+/-0.120	0.176	pCi/g						
Bismuth-212		0.663	+/-0.225	0.107	+/-0.225	0.225	pCi/g						
Bismuth-214		0.989	+/-0.0863	0.0299	+/-0.0863	0.0621	pCi/g						
Cesium-134	UI	0.00	+/-0.0303	0.0195	+/-0.0303	0.0405	pCi/g						
Cesium-137		0.239	+/-0.0381	0.0169	+/-0.0381	0.0351	pCi/g						
Cobalt-60	UI	0.00	+/-0.0259	0.0186	+/-0.0259	0.0392	pCi/g						
Europium-152	U	0.0433	+/-0.0459	0.0406	+/-0.0459	0.084	pCi/g						
Europium-154	U	0.0669	+/-0.0577	0.0473	+/-0.0577	0.100	pCi/g						
Europium-155	U	0.0729	+/-0.0839	0.0502	+/-0.0839	0.103	pCi/g						
Lead-212		1.19	+/-0.0614	0.0224	+/-0.0614	0.0462	pCi/g						
Lead-214		1.14	+/-0.080	0.029	+/-0.080	0.0599	pCi/g						
Manganese-54	U	0.0288	+/-0.0167	0.0145	+/-0.0167	0.0304	pCi/g						
Niobium-94	U	-0.00447	+/-0.0161	0.0136	+/-0.0161	0.0283	pCi/g						
Potassium-40		12.3	+/-0.753	0.136	+/-0.753	0.293	pCi/g						
Radium-226		0.989	+/-0.0863	0.0299	+/-0.0863	0.0621	pCi/g						
Silver-108m	U	-0.0087	+/-0.0156	0.0127	+/-0.0156	0.0265	pCi/g						
Thallium-208		0.302	+/-0.0424	0.0143	+/-0.0424	0.0299	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM1	11/10/06	1441	587566

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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: November 17, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–028F Project: YANK01204
Sample ID: 175908036 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

> 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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: November 17, 2006

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587667										
QC1201227493 175908001 DUP										
Actinium-228		0.943		0.998	pCi/g	6		(0% - 100%)	MJH1	11/14/06 12:13
	Uncert:	+/-0.159		+/-0.238						
	TPU:	+/-0.159		+/-0.238						
Americium-241	U	0.0915	U	0.0274	pCi/g	108		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.0544						
	TPU:	+/-0.107		+/-0.0544						
Bismuth-212		0.625		0.992	pCi/g	45		(0% - 100%)		
	Uncert:	+/-0.304		+/-0.321						
	TPU:	+/-0.304		+/-0.321						
Bismuth-214		0.779		0.810	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.148						
	TPU:	+/-0.107		+/-0.148						
Cesium-134	UI	0.00	UI	0.00	pCi/g	6		(0% - 100%)		
	Uncert:	+/-0.0436		+/-0.044						
	TPU:	+/-0.0436		+/-0.044						
Cesium-137		0.0703	UI	0.00	pCi/g	3		(0% - 100%)		
	Uncert:	+/-0.0547		+/-0.0661						
	TPU:	+/-0.0547		+/-0.0661						
Cobalt-60	U	0.0111	U	0.000713	pCi/g	176		(0% - 100%)		
	Uncert:	+/-0.0228		+/-0.0302						
	TPU:	+/-0.0228		+/-0.0302						
Europium-152	U	-0.00502	U	0.037	pCi/g	263		(0% - 100%)		
	Uncert:	+/-0.0586		+/-0.086						
	TPU:	+/-0.0586		+/-0.086						
Europium-154	U	-0.0251	U	-0.068	pCi/g	92		(0% - 100%)		
	Uncert:	+/-0.0601		+/-0.105						
	TPU:	+/-0.0601		+/-0.105						
Europium-155	U	0.0467	U	0.0589	pCi/g	23		(0% - 100%)		
	Uncert:	+/-0.0579		+/-0.0761						
	TPU:	+/-0.0579		+/-0.0761						
Lead-212		0.889		0.978	pCi/g	10		(0% - 20%)		
	Uncert:	+/-0.0687		+/-0.113						
	TPU:	+/-0.0687		+/-0.113						
Lead-214		0.874		0.862	pCi/g	1		(0% - 20%)		
	Uncert:	+/-0.114		+/-0.137						
	TPU:	+/-0.114		+/-0.137						
Manganese-54	U	-0.0125	U	-0.0236	pCi/g	62		(0% - 100%)		
	Uncert:	+/-0.0237		+/-0.031						
	TPU:	+/-0.0237		+/-0.031						
Niobium-94	U	0.0113	U	0.00674	pCi/g	50		(0% - 100%)		
	Uncert:	+/-0.0199		+/-0.0282						
	TPU:	+/-0.0199		+/-0.0282						

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587667										
Potassium-40		10.8		11.6	pCi/g	7		(0% - 20%)		
	Uncert:	+/-0.905		+/-1.19						
	TPU:	+/-0.905		+/-1.19						
Radium-226		0.779		0.810	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.148						
	TPU:	+/-0.107		+/-0.148						
Silver-108m	U	-0.00478	U	-0.000308	pCi/g	176		(0% - 100%)		
	Uncert:	+/-0.0179		+/-0.0269						
	TPU:	+/-0.0179		+/-0.0269						
Thallium-208		0.287		0.351	pCi/g	20		(0% - 100%)		
	Uncert:	+/-0.0561		+/-0.0731						
	TPU:	+/-0.0561		+/-0.0731						
QC1201227494 LCS										
Actinium-228			U	-0.0819	pCi/g					11/14/06 08:14
	Uncert:			+/-0.678						
	TPU:			+/-0.678						
Americium-241	23.4			23.9	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.583						
	TPU:			+/-0.583						
Bismuth-212				1.91	pCi/g					
	Uncert:			+/-1.92						
	TPU:			+/-1.92						
Bismuth-214			U	-0.00445	pCi/g					
	Uncert:			+/-0.254						
	TPU:			+/-0.254						
Cesium-134			U	-0.0763	pCi/g					
	Uncert:			+/-0.153						
	TPU:			+/-0.153						
Cesium-137	9.53			10.5	pCi/g		111	(75%-125%)		
	Uncert:			+/-0.516						
	TPU:			+/-0.516						
Cobalt-60	14.1			14.8	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.723						
	TPU:			+/-0.723						
Europium-152			U	0.00846	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.252						
Europium-154			U	-0.194	pCi/g					
	Uncert:			+/-0.279						
	TPU:			+/-0.279						
Europium-155			U	-0.188	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.252						
Lead-212			U	0.0611	pCi/g					
	Uncert:			+/-0.133						
	TPU:			+/-0.133						
Lead-214			U	-0.0758	pCi/g					
	Uncert:			+/-0.211						

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 587667											
	TPU:			+/-0.211							
Manganese-54			U	-0.0704	pCi/g						
	Uncert:			+/-0.152							
	TPU:			+/-0.152							
Niobium-94			U	-0.0744	pCi/g						
	Uncert:			+/-0.116							
	TPU:			+/-0.116							
Potassium-40			U	0.735	pCi/g						
	Uncert:			+/-1.12							
	TPU:			+/-1.12							
Radium-226			U	-0.00445	pCi/g			(75%-125%)			
	Uncert:			+/-0.254							
	TPU:			+/-0.254							
Silver-108m			U	-0.0108	pCi/g						
	Uncert:			+/-0.120							
	TPU:			+/-0.120							
Thallium-208			U	0.0188	pCi/g						
	Uncert:			+/-0.130							
	TPU:			+/-0.130							
QC1201227492 MB											
Actinium-228			U	0.0399	pCi/g					11/14/06	12:11
	Uncert:			+/-0.0654							
	TPU:			+/-0.0654							
Americium-241			U	-0.0138	pCi/g						
	Uncert:			+/-0.0594							
	TPU:			+/-0.0594							
Bismuth-212			U	0.160	pCi/g						
	Uncert:			+/-0.129							
	TPU:			+/-0.129							
Bismuth-214			U	0.0168	pCi/g						
	Uncert:			+/-0.0326							
	TPU:			+/-0.0326							
Cesium-134			U	-0.00216	pCi/g						
	Uncert:			+/-0.0166							
	TPU:			+/-0.0166							
Cesium-137			U	0.00325	pCi/g						
	Uncert:			+/-0.0156							
	TPU:			+/-0.0156							
Cobalt-60			U	-0.013	pCi/g						
	Uncert:			+/-0.0142							
	TPU:			+/-0.0142							
Europium-152			U	-0.00319	pCi/g						
	Uncert:			+/-0.0403							
	TPU:			+/-0.0403							
Europium-154			U	-0.014	pCi/g						
	Uncert:			+/-0.0405							
	TPU:			+/-0.0405							
Europium-155			U	0.0127	pCi/g						

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 587667											
	Uncert:			+/-0.0382							
	TPU:			+/-0.0382							
Lead-212			U	0.0231	pCi/g						
	Uncert:			+/-0.0319							
	TPU:			+/-0.0319							
Lead-214			U	0.0321	pCi/g						
	Uncert:			+/-0.0468							
	TPU:			+/-0.0468							
Manganese-54			U	0.0173	pCi/g						
	Uncert:			+/-0.0154							
	TPU:			+/-0.0154							
Niobium-94			U	0.00299	pCi/g						
	Uncert:			+/-0.0175							
	TPU:			+/-0.0175							
Potassium-40			U	0.159	pCi/g						
	Uncert:			+/-0.206							
	TPU:			+/-0.206							
Radium-226			U	0.0168	pCi/g						
	Uncert:			+/-0.0326							
	TPU:			+/-0.0326							
Silver-108m			U	-0.00107	pCi/g						
	Uncert:			+/-0.0144							
	TPU:			+/-0.0144							
Thallium-208			U	0.0211	pCi/g						
	Uncert:			+/-0.0162							
	TPU:			+/-0.0162							
Batch 587668											
QC1201227496 175901001 DUP											
Actinium-228		0.623		0.649	pCi/g	4		(0% - 100%)	MJH1	11/14/06	05:39
	Uncert:	+/-0.117		+/-0.171							
	TPU:	+/-0.117		+/-0.171							
Americium-241	U	-0.0244	U	0.0247	pCi/g	32800		(0% - 100%)			
	Uncert:	+/-0.0896		+/-0.0501							
	TPU:	+/-0.0896		+/-0.0501							
Bismuth-212	UI	0.00		0.475	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.166		+/-0.262							
	TPU:	+/-0.166		+/-0.262							
Bismuth-214		0.587		0.644	pCi/g	9		(0% - 100%)			
	Uncert:	+/-0.0824		+/-0.127							
	TPU:	+/-0.0824		+/-0.127							
Cesium-134	UI	0.00	U	0.0512	pCi/g	7		(0% - 100%)			
	Uncert:	+/-0.0419		+/-0.035							
	TPU:	+/-0.0419		+/-0.035							
Cesium-137		0.137		0.220	pCi/g	46		(0% - 100%)			
	Uncert:	+/-0.0402		+/-0.0557							
	TPU:	+/-0.0402		+/-0.0557							
Cobalt-60	U	0.00871	U	0.00915	pCi/g	5		(0% - 100%)			
	Uncert:	+/-0.0188		+/-0.0306							

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587668										
	TPU:	+/-0.0188		+/-0.0306						
Europium-152	U	-0.0167	U	-0.0129	pCi/g	26		(0% - 100%)		
	Uncert:	+/-0.0452		+/-0.0799						
	TPU:	+/-0.0452		+/-0.0799						
Europium-154	U	-0.0586	U	-0.0281	pCi/g	70		(0% - 100%)		
	Uncert:	+/-0.0558		+/-0.0893						
	TPU:	+/-0.0558		+/-0.0893						
Europium-155	U	0.0367	U	0.0373	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.0494		+/-0.0583						
	TPU:	+/-0.0494		+/-0.0583						
Lead-212		0.647		0.590	pCi/g	9		(0% - 20%)		
	Uncert:	+/-0.0514		+/-0.0763						
	TPU:	+/-0.0514		+/-0.0763						
Lead-214		0.536		0.604	pCi/g	12		(0% - 20%)		
	Uncert:	+/-0.0697		+/-0.0975						
	TPU:	+/-0.0697		+/-0.0975						
Manganese-54	U	-0.00498	U	0.0131	pCi/g	445		(0% - 100%)		
	Uncert:	+/-0.0185		+/-0.0258						
	TPU:	+/-0.0185		+/-0.0258						
Niobium-94	U	-0.00593	U	-0.00651	pCi/g	9		(0% - 100%)		
	Uncert:	+/-0.016		+/-0.0235						
	TPU:	+/-0.016		+/-0.0235						
Potassium-40		9.70		9.46	pCi/g	3		(0% - 20%)		
	Uncert:	+/-0.790		+/-0.904						
	TPU:	+/-0.790		+/-0.904						
Radium-226		0.587		0.644	pCi/g	9		(0% - 100%)		
	Uncert:	+/-0.0824		+/-0.127						
	TPU:	+/-0.0824		+/-0.127						
Silver-108m	U	0.00162	U	-0.00474	pCi/g	408		(0% - 100%)		
	Uncert:	+/-0.0147		+/-0.0211						
	TPU:	+/-0.0147		+/-0.0211						
Thallium-208		0.202		0.211	pCi/g	5		(0% - 100%)		
	Uncert:	+/-0.0371		+/-0.0531						
	TPU:	+/-0.0371		+/-0.0531						
QC1201227497 LCS										
Actinium-228			U	-0.267	pCi/g					11/14/06 05:38
	Uncert:			+/-0.527						
	TPU:			+/-0.527						
Americium-241	23.4			24.0	pCi/g		103	(75%-125%)		
	Uncert:			+/-0.579						
	TPU:			+/-0.579						
Bismuth-212			U	0.0433	pCi/g					
	Uncert:			+/-0.880						
	TPU:			+/-0.880						
Bismuth-214			U	0.0525	pCi/g					
	Uncert:			+/-0.206						
	TPU:			+/-0.206						
Cesium-134			U	0.0656	pCi/g					

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 587668										
	Uncert:			+/-0.131						
	TPU:			+/-0.131						
Cesium-137	9.53			10.3	pCi/g		108	(75%-125%)		
	Uncert:			+/-0.455						
	TPU:			+/-0.455						
Cobalt-60	14.1			14.4	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.618						
	TPU:			+/-0.618						
Europium-152			U	-0.166	pCi/g					
	Uncert:			+/-0.234						
	TPU:			+/-0.234						
Europium-154			U	0.0013	pCi/g					
	Uncert:			+/-0.261						
	TPU:			+/-0.261						
Europium-155			U	0.0186	pCi/g					
	Uncert:			+/-0.181						
	TPU:			+/-0.181						
Lead-212			U	-0.0176	pCi/g					
	Uncert:			+/-0.129						
	TPU:			+/-0.129						
Lead-214			U	0.0879	pCi/g					
	Uncert:			+/-0.200						
	TPU:			+/-0.200						
Manganese-54			U	0.100	pCi/g					
	Uncert:			+/-0.122						
	TPU:			+/-0.122						
Niobium-94			U	-0.00783	pCi/g					
	Uncert:			+/-0.108						
	TPU:			+/-0.108						
Potassium-40			U	0.674	pCi/g					
	Uncert:			+/-1.03						
	TPU:			+/-1.03						
Radium-226			U	0.0525	pCi/g			(75%-125%)		
	Uncert:			+/-0.206						
	TPU:			+/-0.206						
Silver-108m			U	-0.066	pCi/g					
	Uncert:			+/-0.0955						
	TPU:			+/-0.0955						
Thallium-208			U	0.0874	pCi/g					
	Uncert:			+/-0.103						
	TPU:			+/-0.103						
QC1201227495 MB										
Actinium-228			U	0.0265	pCi/g					11/14/06 05:36
	Uncert:			+/-0.0331						
	TPU:			+/-0.0331						
Americium-241			U	-0.00259	pCi/g					
	Uncert:			+/-0.0337						
	TPU:			+/-0.0337						

QC Summary

Workorder: 175908

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 587668											
Bismuth-212			U	0.0253	pCi/g						
	Uncert:			+/-0.0826							
	TPU:			+/-0.0826							
Bismuth-214			U	0.0446	pCi/g						
	Uncert:			+/-0.0227							
	TPU:			+/-0.0227							
Cesium-134			U	-0.00362	pCi/g						
	Uncert:			+/-0.0103							
	TPU:			+/-0.0103							
Cesium-137			U	-0.00749	pCi/g						
	Uncert:			+/-0.00967							
	TPU:			+/-0.00967							
Cobalt-60			U	0.0102	pCi/g						
	Uncert:			+/-0.00995							
	TPU:			+/-0.00995							
Europium-152			U	0.0106	pCi/g						
	Uncert:			+/-0.025							
	TPU:			+/-0.025							
Europium-154			U	-0.000185	pCi/g						
	Uncert:			+/-0.0282							
	TPU:			+/-0.0282							
Europium-155			U	-0.00897	pCi/g						
	Uncert:			+/-0.0296							
	TPU:			+/-0.0296							
Lead-212			UI	0.00	pCi/g						
	Uncert:			+/-0.0295							
	TPU:			+/-0.0295							
Lead-214			U	0.0198	pCi/g						
	Uncert:			+/-0.0275							
	TPU:			+/-0.0275							
Manganese-54			U	0.0154	pCi/g						
	Uncert:			+/-0.0203							
	TPU:			+/-0.0203							
Niobium-94			U	-0.00403	pCi/g						
	Uncert:			+/-0.00979							
	TPU:			+/-0.00979							
Potassium-40			UI	0.00	pCi/g						
	Uncert:			+/-0.120							
	TPU:			+/-0.120							
Radium-226			U	0.0446	pCi/g						
	Uncert:			+/-0.0227							
	TPU:			+/-0.0227							
Silver-108m			U	-0.00534	pCi/g						
	Uncert:			+/-0.00896							
	TPU:			+/-0.00896							
Thallium-208			U	0.005	pCi/g						
	Uncert:			+/-0.0172							
	TPU:			+/-0.0172							

QC Summary

Workorder: **175908**

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

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

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.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 177260
SDG: MSR#06-1533

December 12, 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 December 07, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
177260001	9522-0002-051I
177260002	9522-0002-056I
177260003	9522-0002-045I
177260004	9522-0002-046I
177260005	9522-0002-047I
177260006	9522-0002-048I
177260007	9522-0002-049I
177260008	9522-0002-050I
177260009	9522-0002-052I
177260010	9522-0002-053I
177260011	9522-0002-054I
177260012	9522-0002-055I
177260013	9522-0002-057I
177260014	9522-0002-058I
177260015	9522-0002-059I
177260016	9522-0002-060I

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 contained in the analytical case narratives in the enclosed data package.

Analytical Request

Fourteen soil samples were analyzed for FSSGAM and Strontium-90. Two soil samples were analyzed for FSSALL.

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 12 December 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

Chain of Custody Form

No. 2006-00698

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments: 177260%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
003	9522-0002-045I	12/04/06	1043	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
004	9522-0002-046I	12/04/06	1022	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
005	9522-0002-047I	12/04/06	1008	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
006	9522-0002-048I	12/04/06	1024	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
007	9522-0002-049I	12/04/06	1352	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
008	9522-0002-050I	12/04/06	1345	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
001	9522-0002-051I	12/04/06	1349	TS	G	1LM		X					RDL'S: Sr-90: 0.025	
009	9522-0002-052I	12/04/06	1400	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
010	9522-0002-053I	12/04/06	1100	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
011	9522-0002-054I	12/04/06	1045	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
012	9522-0002-055I	12/04/06	1100	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	

NOTES: PO #: 002332 MSR #: 06-1533 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #

Internal Container Temp.: 10 Deg. C

Custody Sealed? ☒ Y ☐ N

Custody Seal Intact? Y / N

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	12/6/06 1330	[signature]	12/7/06 9:15
3) Relinquished By	Date/Time	4) 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. 2006-00698

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 177260°

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
012	9522-0002-056I	12/04/06	1048	TS	G	1LM		X					RDL'S: Sr-90: 0.025	
013	9522-0002-057I	12/04/06	1433	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
014	9522-0002-058I	12/04/06	1430	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
015	9522-0002-059I	12/04/06	1418	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	
016	9522-0002-060I	12/04/06	1419	TS	G	1LM	X		X				RDL'S: Sr-90: 0.025	

NOTES: PO #: 002332 MSR #: 06-1533 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

TRK# 7922-5190-5941

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

Bill of Lading #

Internal Container Temp.: 14° Deg. C

Custody Sealed? Y ☒ N ☐

Custody Seal Intact? Y ☒ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	12/6/06 1330	[signature]	12/7/06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Yankee	SDG/ARCOC/Work Order: 177260
Date Received: 12/7/06	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*: 50CPM
B	PCB Regulated?	✓			
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:
D	Regulated as a Foreign Soil?				

PM (or PMA) review of Hazard classification: ✓ Initials [illegible] Date: 12/7/06

Figure 1. Sample Check-in List

Date/Time Received: 12.7.06 9:15

SDG#: MSR #06-533

Work Order Number: 177260

Shipping Container ID: 1922 5190 5930 Chain of Custody # 2006 - 00698

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 11.0
5. Vermiculite/packing materials is: Wet [ ] Dry [ ]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:

X 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 [X]

11. Description of anomalies (include sample numbers): ____

Sample Custodian/Laboratory: [signature] Date: 12/7/06

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/7/06 9:15.

SDG#: MSR#06-1533

Work Order Number: 177260

Shipping Container ID: 1922 5190 5941 Chain of Custody # 2006-00698

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 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 5
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? Yes [ ] No [X]
11. Description of anomalies (include sample numbers): ___

Sample Custodian/Laboratory: CDaune Date: 12/7/06

Telephoned to: ___ On ___ By ___

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

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:	594000
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201242360	Method Blank (MB)
1201242361	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201242362	177260001(9522-0002-051I) Matrix Spike (MS)
1201242363	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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.

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-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:	594644
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201243803	Method Blank (MB)
1201243804	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201243805	177260001(9522-0002-051I) Matrix Spike (MS)
1201243806	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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 177260001 (9522-0002-051I) and 177260002 (9522-0002-056I) 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.

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-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:	594927
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201244464	Method Blank (MB)
1201244465	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201244466	177260001(9522-0002-051I) Matrix Spike (MS)
1201244467	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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 177260001 (9522-0002-051I) and 177260002 (9522-0002-056I) 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. 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:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	594413
Prep Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
177260003	9522-0002-045I
177260004	9522-0002-046I
177260005	9522-0002-047I
177260006	9522-0002-048I
177260007	9522-0002-049I
177260008	9522-0002-050I
177260009	9522-0002-052I
177260010	9522-0002-053I
177260011	9522-0002-054I
177260012	9522-0002-055I
177260013	9522-0002-057I
177260014	9522-0002-058I
177260015	9522-0002-059I
177260016	9522-0002-060I
1201243211	Method Blank (MB)
1201243212	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201243213	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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
Pb-210 was positively identified in samples 177260002 (9522-0002-056I) and 177260016 (9522-0002-060I) and added to the batch.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Cobalt-60	177260007
			177260016
		Potassium-40	177260016
UI	Data rejected due to interference.	Europium-155	177260003
			177260005
			177260007
			177260008
		Manganese-54	177260003
UI	Data rejected due to low abundance.	Bismuth-214	1201243211
		Cesium-134	177260001
			177260003
			177260004
			177260005
			177260006
			177260007
			177260008
			177260009
			177260010
			177260011
			177260012
			177260013
			177260014
		Europium-154	177260005
UI	Data rejected due to no valid peak.	Radium-226	1201243211

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:	596650
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
177260003	9522-0002-045I
177260004	9522-0002-046I
177260005	9522-0002-047I
177260006	9522-0002-048I
177260007	9522-0002-049I
177260008	9522-0002-050I
177260009	9522-0002-052I
177260010	9522-0002-053I
177260011	9522-0002-054I
177260012	9522-0002-055I
177260013	9522-0002-057I
177260014	9522-0002-058I
177260015	9522-0002-059I
177260016	9522-0002-060I
1201248497	Method Blank (MB)
1201248498	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201248499	177260001(9522-0002-051I) Matrix Spike (MS)
1201248500	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volume in this batch.

Designated QC
The following sample was used for QC: 177260001 (9522-0002-051I).

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 177260004 (9522-0002-046I), 177260005 (9522-0002-047I), 177260006 (9522-0002-048I), 177260007 (9522-0002-049I) and 177260008 (9522-0002-050I) were recounted due to high MDAs. Samples 177260001 (9522-0002-051I), 177260002 (9522-0002-056I), 177260003 (9522-0002-045I), 177260004 (9522-0002-046I), 177260005 (9522-0002-047I), 177260006 (9522-0002-048I), 177260007 (9522-0002-049I), 177260008 (9522-0002-050I), 177260009 (9522-0002-052I), 177260010 (9522-0002-053I), 177260011 (9522-0002-054I), 177260012 (9522-0002-055I), 177260013 (9522-0002-057I), 177260014 (9522-0002-058I), 177260015 (9522-0002-059I) and 177260016 (9522-0002-060I) were reprepped due to high relative percent difference/relative error ratio. Samples 177260001 (9522-0002-051I), 177260002 (9522-0002-056I), 177260003 (9522-0002-045I), 177260004 (9522-0002-046I), 177260005 (9522-0002-047I), 177260006 (9522-0002-048I), 177260007 (9522-0002-049I), 177260008 (9522-0002-050I), 177260009 (9522-0002-052I), 177260010 (9522-0002-053I), 177260011 (9522-0002-054I), 177260012 (9522-0002-055I), 177260013 (9522-0002-057I), 177260014 (9522-0002-058I), 177260015 (9522-0002-059I) and 177260016 (9522-0002-060I) 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. 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-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	593875

Sample ID	Client ID
177260001	9522-0002-051I
1201242065	Method Blank (MB)
1201242066	177260002(9522-0002-056I) Sample Duplicate (DUP)
1201242067	177260002(9522-0002-056I) Matrix Spike (MS)
1201242068	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260002 (9522-0002-056I).

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 background was recounted due to negative results greater than three times the 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
Additional comments were not required for this sample set.

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:	597452

Sample ID	Client ID
177260002	9522-0002-056I
1201250391	Method Blank (MB)
1201250392	177260002(9522-0002-056I) Sample Duplicate (DUP)
1201250393	177260002(9522-0002-056I) Matrix Spike (MS)
1201250394	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volumes in this batch.

Designated QC
The following sample was used for QC: 177260002 (9522-0002-056I).

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 1201250391 (MB), 1201250392 (9522-0002-056I) and 177260002 (9522-0002-056I) were recounted due to the activity of the sample being between two and three sigma TPU. Sample 177260002 (9522-0002-056I) was reprepped due to spectral interference.

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 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:	593917
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201242153	Method Blank (MB)
1201242154	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201242155	177260001(9522-0002-051I) Matrix Spike (MS)
1201242156	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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 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:	593920
Prep Batch Number:	593897
Dry Soil Prep GL-RAD-A-021 Batch Number:	593892

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201242157	Method Blank (MB)
1201242158	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201242159	177260001(9522-0002-051I) Matrix Spike (MS)
1201242160	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

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:	**LSC, Tritium Dist, Solid - 3 pCi/g**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	595180

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201245026	Method Blank (MB)
1201245027	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201245028	177260001(9522-0002-051I) Matrix Spike (MS)
1201245029	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volume in this batch.

Designated QC
The following sample was used for QC: 177260001 (9522-0002-051I).

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:	**Liquid Scint C14, Solid All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	593922

Sample ID	Client ID
177260001	9522-0002-051I
177260002	9522-0002-056I
1201242165	Method Blank (MB)
1201242166	177260001(9522-0002-051I) Sample Duplicate (DUP)
1201242167	177260001(9522-0002-051I) Matrix Spike (MS)
1201242168	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 177260001 (9522-0002-051I).

QC Information
Refer to Non-Conformance Report.

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 392390 was generated due to Failed Recovery for MS/PS. 1. Matrix spike 1201242167 did not meet the recovery requirement due to the sample matrix. 1. Reporting results. The matrix spike was reprepped with similar results.

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: Pamela Wilson 12/26/09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-DEC-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	EPA EERF C-01 Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
593922	See Below		

Potentially affected work order(s)(SDG): 177260(MSR#06-1533)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Matrix spike 1201242167 did not meet the recovery requirement due to the sample matrix.	1. Reporting results. The matrix spike was reprepped with similar results.

Originator's Name:

John Parker 14-DEC-06

Data Validator/Group Leader:

Melanie Aycock 15-DEC-06

Quality Review:

Director:

SAMPLE DATA SUMMARY

GEL 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#06-1533 GEL Work Order: 177260

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 GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GEL 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 26, 2006

Client Sample ID:	9522–0002–051I	Project:	YANK01204
Sample ID:	177260001	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	29.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium–241	U	0.116	+/–0.141	0.0719	+/–0.142	0.221	pCi/g		PXH2	12/08/06	1928	594000	
Curium–242	U	–0.00578	+/–0.0643	0.058	+/–0.0643	0.194	pCi/g						
Curium–243/244	U	0.223	+/–0.190	0.0916	+/–0.192	0.260	pCi/g						
Alphaspec Pu, Solid–ALL FSS													
Plutonium–238	U	0.0371	+/–0.104	0.064	+/–0.105	0.225	pCi/g		GXR1	12/12/06	1358	594927	
Plutonium–239/240	U	0.108	+/–0.144	0.064	+/–0.144	0.225	pCi/g						
Liquid Scint Pu241, Solid–ALL FSS													
Plutonium–241	U	–1.52	+/–6.66	5.66	+/–6.66	11.9	pCi/g		PXH2	12/13/06	1650	594644	
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.08	+/–0.211	0.0596	+/–0.211	0.127	pCi/g		MJH1	12/11/06	1817	594413	
Americium–241	U	0.0259	+/–0.0406	0.0256	+/–0.0406	0.0521	pCi/g						
Bismuth–212		0.922	+/–0.336	0.143	+/–0.336	0.300	pCi/g						
Bismuth–214		0.755	+/–0.107	0.0394	+/–0.107	0.082	pCi/g						
Cesium–134	UI	0.00	+/–0.0431	0.0255	+/–0.0431	0.0532	pCi/g						
Cesium–137		3.39	+/–0.113	0.0204	+/–0.113	0.0426	pCi/g						
Cobalt–60		0.0666	+/–0.0471	0.0193	+/–0.0471	0.0416	pCi/g						
Europium–152	U	–0.02	+/–0.0649	0.0538	+/–0.0649	0.111	pCi/g						
Europium–154	U	0.026	+/–0.0667	0.0571	+/–0.0667	0.122	pCi/g						
Europium–155	U	0.0575	+/–0.0664	0.0431	+/–0.0664	0.0881	pCi/g						
Lead–212		1.12	+/–0.0679	0.026	+/–0.0679	0.0535	pCi/g						
Lead–214		0.892	+/–0.114	0.0392	+/–0.114	0.0808	pCi/g						
Manganese–54	U	0.00171	+/–0.024	0.0194	+/–0.024	0.0408	pCi/g						
Niobium–94	U	0.0108	+/–0.0217	0.0181	+/–0.0217	0.0379	pCi/g						
Potassium–40		8.12	+/–0.774	0.142	+/–0.774	0.315	pCi/g						
Radium–226		0.755	+/–0.107	0.0394	+/–0.107	0.082	pCi/g						
Silver–108m	U	0.0094	+/–0.0241	0.0203	+/–0.0241	0.0418	pCi/g						
Thallium–208		0.359	+/–0.0494	0.0196	+/–0.0494	0.0409	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.104	+/–0.0415	0.0274	+/–0.0419	0.0597	pCi/g		KSD1	12/19/06	1537	596650	
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–0.717	+/–1.19	1.04	+/–1.19	2.18	pCi/g		DFA1	12/14/06	0954	595180	

GEL 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-051I Project: YANK01204
Sample ID: 177260001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Liquid Scintillation Analysis													
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	0.0124	+/-0.115	0.096	+/-0.115	0.196	pCi/g		AXD2	12/08/06	1649	593922	
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	15.5	+/-38.3	29.8	+/-38.4	62.9	pCi/g		MXP1	12/12/06	2102	593917	
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-9.45	+/-10.3	9.08	+/-10.3	19.0	pCi/g		MXP1	12/12/06	0356	593920	
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	-0.208	+/-0.203	0.179	+/-0.203	0.374	pCi/g		KXR1	12/12/06	1450	593875	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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	DOE EML HASL-300, Pu-11-RC Modified
6	EML HASL 300, 4.5.2.3
7	EPA 905.0 Modified
8	EPA 905.0 Modified
9	EPA 905.0 Modified
10	EPA 905.0 Modified
11	EPA 906.0 Modified
12	EPA 906.0 Modified
13	EPA EERF C-01 Modified
14	EPA EERF C-01 Modified
15	DOE RESL Fe-1, Modified
16	DOE RESL Ni-1, Modified
17	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

GEL 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–051I Project: YANK01204
Sample ID: 177260001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	100	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	68	(15%–125%)
Plutonium–241	Liquid Scint Pu241, Solid–ALL FS	91	(25%–125%)
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	83	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	83	(25%–125%)
Iron–55	Liquid Scint Fe55, Solid–ALL FS	47	(15%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	77	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	77	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	87	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	87	(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.

GEL 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-056I	Project:	YANK01204
Sample ID:	177260002	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	43.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.235	+/-0.215	0.116	+/-0.217	0.314	pCi/g		PXH2	12/08/06	1928	594000	
Curium-242	U	-0.036	+/-0.0749	0.0835	+/-0.075	0.251	pCi/g						
Curium-243/244	U	0.0389	+/-0.185	0.144	+/-0.185	0.371	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	0.011	+/-0.0835	0.0611	+/-0.0835	0.229	pCi/g		GXR1	12/12/06	1358	594927	
Plutonium-239/240	U	0.0315	+/-0.117	0.0789	+/-0.117	0.264	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	0.00	+/-8.51	7.14	+/-8.51	15.0	pCi/g		PXH2	12/13/06	1706	594644	
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.01	+/-0.397	0.105	+/-0.397	0.220	pCi/g		MJH1	12/11/06	1817	594413	
Americium-241	U	0.0197	+/-0.0476	0.036	+/-0.0476	0.0735	pCi/g						
Bismuth-212	U	0.319	+/-0.365	0.269	+/-0.365	0.558	pCi/g						
Bismuth-214		0.584	+/-0.202	0.061	+/-0.202	0.126	pCi/g						
Cesium-134	U	0.043	+/-0.050	0.0368	+/-0.050	0.0767	pCi/g						
Cesium-137		5.26	+/-0.161	0.0336	+/-0.161	0.0698	pCi/g						
Cobalt-60		0.0919	+/-0.0775	0.0352	+/-0.0775	0.0744	pCi/g						
Europium-152	U	-0.0153	+/-0.104	0.0802	+/-0.104	0.165	pCi/g						
Europium-154	U	-0.0563	+/-0.112	0.088	+/-0.112	0.187	pCi/g						
Europium-155	U	0.0939	+/-0.0835	0.0634	+/-0.0835	0.130	pCi/g						
Lead-210		7.11	+/-0.989	0.320	+/-0.989	0.655	pCi/g						
Lead-212		0.647	+/-0.131	0.0431	+/-0.131	0.0881	pCi/g						
Lead-214		0.672	+/-0.141	0.0589	+/-0.141	0.121	pCi/g						
Manganese-54	U	-0.0196	+/-0.0406	0.0312	+/-0.0406	0.0651	pCi/g						
Niobium-94	U	-0.0171	+/-0.0357	0.0279	+/-0.0357	0.058	pCi/g						
Potassium-40		8.70	+/-1.01	0.307	+/-1.01	0.654	pCi/g						
Radium-226		0.584	+/-0.202	0.061	+/-0.202	0.126	pCi/g						
Silver-108m	U	0.0256	+/-0.0355	0.0331	+/-0.0355	0.068	pCi/g						
Thallium-208		0.221	+/-0.0886	0.0308	+/-0.0886	0.064	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.341	+/-0.0512	0.0217	+/-0.0548	0.0478	pCi/g		KSD1	12/19/06	1537	596650	
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid - 3 pCi/g													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–056I Project: YANK01204
Sample ID: 177260002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	0.0419	+/–1.19	0.997	+/–1.19	2.10	pCi/g		DFA1	12/14/06	1026	595180	
Liquid Scint C14, Solid All,FSS													
Carbon–14		0.209	+/–0.116	0.0938	+/–0.116	0.191	pCi/g		AXD2	12/08/06	1753	593922	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–13.9	+/–37.8	30.9	+/–37.8	65.1	pCi/g		MXP1	12/12/06	2118	593917	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–4.82	+/–9.87	8.49	+/–9.87	17.8	pCi/g		MXP1	12/12/06	0413	593920	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	0.0593	+/–0.187	0.155	+/–0.187	0.318	pCi/g		KXR1	12/26/06	0734	597452	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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	DOE EML HASL–300, Pu–11–RC Modified
6	EML HASL 300, 4.5.2.3
7	EPA 905.0 Modified
8	EPA 905.0 Modified
9	EPA 905.0 Modified
10	EPA 905.0 Modified
11	EPA 906.0 Modified
12	EPA 906.0 Modified
13	EPA EERF C–01 Modified
14	EPA EERF C–01 Modified
15	DOE RESL Fe–1, Modified
16	DOE RESL Ni–1, Modified
17	DOE EML HASL–300, Tc–02–RC Modified

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–056I Project: YANK01204
Sample ID: 177260002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
18	DOE EML HASL–300, Tc–02–RC Modified												
19	DOE EML HASL–300, Tc–02–RC Modified												
20	DOE EML HASL–300, Tc–02–RC Modified												
21	DOE EML HASL–300, Tc–02–RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	93	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	64	(15%–125%)
Plutonium–241	Liquid Scint Pu241, Solid–ALL FS	73	(25%–125%)
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	91	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	91	(25%–125%)
Iron–55	Liquid Scint Fe55, Solid–ALL FS	44	(15%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	82	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	82	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	81	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	81	(15%–125%)

Notes:
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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

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East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–056I Project: YANK01204
Sample ID: 177260002 Client ID: YANK001
Vol. Recv.:

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

The above sample is reported on a dry weight basis.

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East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–045I	Project:	YANK01204
Sample ID:	177260003	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	26.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.858	+/–0.148	0.0439	+/–0.148	0.0921	pCi/g		MJH1	12/11/06	1818	594413	
Americium–241	U	0.00123	+/–0.0187	0.0157	+/–0.0187	0.0319	pCi/g						
Bismuth–212		0.591	+/–0.208	0.088	+/–0.208	0.184	pCi/g						
Bismuth–214		0.845	+/–0.0751	0.0215	+/–0.0751	0.0448	pCi/g						
Cesium–134	UI	0.00	+/–0.0236	0.016	+/–0.0236	0.0332	pCi/g						
Cesium–137		0.957	+/–0.0489	0.0138	+/–0.0489	0.0285	pCi/g						
Cobalt–60	U	0.0223	+/–0.0195	0.0142	+/–0.0195	0.030	pCi/g						
Europium–152	U	0.0423	+/–0.0464	0.031	+/–0.0464	0.0638	pCi/g						
Europium–154	U	–0.0192	+/–0.0547	0.0379	+/–0.0547	0.0804	pCi/g						
Europium–155	UI	0.00	+/–0.0436	0.0251	+/–0.0436	0.0514	pCi/g						
Lead–212		0.961	+/–0.0426	0.0171	+/–0.0426	0.035	pCi/g						
Lead–214		0.927	+/–0.0678	0.0217	+/–0.0678	0.0448	pCi/g						
Manganese–54	UI	0.00	+/–0.0149	0.0107	+/–0.0149	0.0226	pCi/g						
Niobium–94	U	0.000681	+/–0.0145	0.0121	+/–0.0145	0.0251	pCi/g						
Potassium–40		11.1	+/–0.583	0.0967	+/–0.583	0.211	pCi/g						
Radium–226		0.845	+/–0.0751	0.0215	+/–0.0751	0.0448	pCi/g						
Silver–108m	U	0.0105	+/–0.0134	0.012	+/–0.0134	0.0247	pCi/g						
Thallium–208		0.286	+/–0.0405	0.0119	+/–0.0405	0.0248	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.0787	+/–0.0403	0.028	+/–0.0408	0.061	pCi/g		KSD1	12/19/06	1537	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–045I Project: YANK01204
Sample ID: 177260003 Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

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- 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–046I	Project:	YANK01204
Sample ID:	177260004	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	22.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.15	+/–0.169	0.0369	+/–0.169	0.0738	pCi/g		MJH1	12/11/06	1821	594413	
Americium–241	U	0.0656	+/–0.0948	0.075	+/–0.0948	0.150	pCi/g						
Bismuth–212		0.672	+/–0.192	0.0755	+/–0.192	0.151	pCi/g						
Bismuth–214		0.909	+/–0.110	0.0207	+/–0.110	0.0415	pCi/g						
Cesium–134	UI	0.00	+/–0.0266	0.0139	+/–0.0266	0.0277	pCi/g						
Cesium–137		0.374	+/–0.0411	0.0114	+/–0.0411	0.0228	pCi/g						
Cobalt–60	U	0.0111	+/–0.0132	0.0114	+/–0.0132	0.0229	pCi/g						
Europium–152	U	0.00409	+/–0.0532	0.0317	+/–0.0532	0.0634	pCi/g						
Europium–154	U	0.0213	+/–0.0688	0.032	+/–0.0688	0.064	pCi/g						
Europium–155	U	0.0169	+/–0.065	0.0415	+/–0.065	0.0829	pCi/g						
Lead–212		1.02	+/–0.0901	0.0187	+/–0.0901	0.0373	pCi/g						
Lead–214		1.06	+/–0.110	0.0221	+/–0.110	0.0442	pCi/g						
Manganese–54	U	0.0124	+/–0.0178	0.0103	+/–0.0178	0.0205	pCi/g						
Niobium–94	U	0.0069	+/–0.012	0.0101	+/–0.012	0.0202	pCi/g						
Potassium–40		13.5	+/–0.944	0.098	+/–0.944	0.196	pCi/g						
Radium–226		0.909	+/–0.110	0.0207	+/–0.110	0.0415	pCi/g						
Silver–108m	U	–0.00542	+/–0.0122	0.0102	+/–0.0122	0.0205	pCi/g						
Thallium–208		0.309	+/–0.0395	0.0107	+/–0.0395	0.0214	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.0205	+/–0.0123	0.00934	+/–0.0123	0.0197	pCi/g		KSD1	12/22/06	1310	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–046I Project: YANK01204
Sample ID: 177260004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

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- 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
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East Hampton, Connecticut 06424 — Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-047I	Project:	YANK01204
Sample ID:	177260005	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	28.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.907	+/-0.171	0.048	+/-0.171	0.101	pCi/g		MJH1	12/11/06	1832	594413	
Americium-241	U	-0.0215	+/-0.0615	0.0528	+/-0.0615	0.108	pCi/g						
Bismuth-212		0.540	+/-0.248	0.0997	+/-0.248	0.210	pCi/g						
Bismuth-214		0.768	+/-0.106	0.0246	+/-0.106	0.0515	pCi/g						
Cesium-134	UI	0.00	+/-0.0303	0.0188	+/-0.0303	0.0392	pCi/g						
Cesium-137		1.07	+/-0.0913	0.0153	+/-0.0913	0.032	pCi/g						
Cobalt-60		0.0364	+/-0.0335	0.0144	+/-0.0335	0.031	pCi/g						
Europium-152	U	0.00911	+/-0.0445	0.0363	+/-0.0445	0.0751	pCi/g						
Europium-154	UI	0.00	+/-0.0761	0.0395	+/-0.0761	0.0848	pCi/g						
Europium-155	UI	0.00	+/-0.0684	0.0388	+/-0.0684	0.0793	pCi/g						
Lead-212		0.921	+/-0.0913	0.0202	+/-0.0913	0.0415	pCi/g						
Lead-214		0.818	+/-0.103	0.026	+/-0.103	0.0537	pCi/g						
Manganese-54	U	0.0231	+/-0.0199	0.0109	+/-0.0199	0.0233	pCi/g						
Niobium-94	U	0.00615	+/-0.0141	0.0121	+/-0.0141	0.0254	pCi/g						
Potassium-40		10.6	+/-1.01	0.117	+/-1.01	0.257	pCi/g						
Radium-226		0.768	+/-0.106	0.0246	+/-0.106	0.0515	pCi/g						
Silver-108m	U	0.0103	+/-0.0151	0.0133	+/-0.0151	0.0277	pCi/g						
Thallium-208		0.309	+/-0.0488	0.0125	+/-0.0488	0.0262	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0807	+/-0.0159	0.00933	+/-0.0161	0.0199	pCi/g		KSD1	12/22/06	1310	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–047I Project: YANK01204
Sample ID: 177260005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:
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- 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-048I	Project:	YANK01204
Sample ID:	177260006	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	25.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.901	+/-0.160	0.0418	+/-0.160	0.088	pCi/g		MJH1	12/11/06	1833	594413	
Americium-241	U	-0.0142	+/-0.0722	0.0541	+/-0.0722	0.111	pCi/g						
Bismuth-212		0.598	+/-0.219	0.0894	+/-0.219	0.187	pCi/g						
Bismuth-214		0.732	+/-0.0973	0.0241	+/-0.0973	0.0501	pCi/g						
Cesium-134	UI	0.00	+/-0.0245	0.0156	+/-0.0245	0.0325	pCi/g						
Cesium-137		0.790	+/-0.0842	0.0134	+/-0.0842	0.0278	pCi/g						
Cobalt-60	U	0.0115	+/-0.017	0.0147	+/-0.017	0.0312	pCi/g						
Europium-152	U	-0.0208	+/-0.0375	0.0322	+/-0.0375	0.0664	pCi/g						
Europium-154	U	0.0284	+/-0.0465	0.0402	+/-0.0465	0.085	pCi/g						
Europium-155	U	0.0249	+/-0.0437	0.035	+/-0.0437	0.0716	pCi/g						
Lead-212		0.854	+/-0.079	0.0174	+/-0.079	0.0358	pCi/g						
Lead-214		0.794	+/-0.0922	0.0233	+/-0.0922	0.048	pCi/g						
Manganese-54	U	0.0129	+/-0.0151	0.0124	+/-0.0151	0.0261	pCi/g						
Niobium-94	U	0.0116	+/-0.0137	0.0118	+/-0.0137	0.0246	pCi/g						
Potassium-40		11.3	+/-0.908	0.110	+/-0.908	0.238	pCi/g						
Radium-226		0.732	+/-0.0973	0.0241	+/-0.0973	0.0501	pCi/g						
Silver-108m	U	0.0127	+/-0.0129	0.0115	+/-0.0129	0.0239	pCi/g						
Thallium-208		0.266	+/-0.0397	0.0119	+/-0.0397	0.0248	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0427	+/-0.0129	0.00907	+/-0.0131	0.0191	pCi/g		KSD1	12/22/06	1310	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–048I Project: YANK01204
Sample ID: 177260006 Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	85	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	85	(25%–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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-049I	Project:	YANK01204
Sample ID:	177260007	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	27.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.931	+/-0.181	0.0476	+/-0.181	0.100	pCi/g		MJH1	12/11/06	1833	594413	
Americium-241	U	0.0163	+/-0.0701	0.0605	+/-0.0701	0.123	pCi/g						
Bismuth-212		0.800	+/-0.266	0.0989	+/-0.266	0.207	pCi/g						
Bismuth-214		0.765	+/-0.109	0.0263	+/-0.109	0.0546	pCi/g						
Cesium-134	UI	0.00	+/-0.0305	0.0174	+/-0.0305	0.0362	pCi/g						
Cesium-137		1.15	+/-0.0985	0.0149	+/-0.0985	0.031	pCi/g						
Cobalt-60	UI	0.00	+/-0.0554	0.0132	+/-0.0554	0.0283	pCi/g						
Europium-152	U	-0.0168	+/-0.0443	0.0373	+/-0.0443	0.0768	pCi/g						
Europium-154	U	-0.0389	+/-0.0503	0.039	+/-0.0503	0.083	pCi/g						
Europium-155	UI	0.00	+/-0.0709	0.0355	+/-0.0709	0.0727	pCi/g						
Lead-212		1.11	+/-0.0979	0.0204	+/-0.0979	0.0419	pCi/g						
Lead-214		0.874	+/-0.112	0.027	+/-0.112	0.0556	pCi/g						
Manganese-54	U	0.0175	+/-0.0156	0.0135	+/-0.0156	0.0282	pCi/g						
Niobium-94	U	0.0181	+/-0.0155	0.0134	+/-0.0155	0.0278	pCi/g						
Potassium-40		9.43	+/-0.881	0.125	+/-0.881	0.269	pCi/g						
Radium-226		0.765	+/-0.109	0.0263	+/-0.109	0.0546	pCi/g						
Silver-108m	U	-0.0038	+/-0.0159	0.0132	+/-0.0159	0.0274	pCi/g						
Thallium-208		0.358	+/-0.0469	0.014	+/-0.0469	0.029	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0302	+/-0.00916	0.00622	+/-0.00935	0.0132	pCi/g		KSD1	12/22/06	1320	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–049I Project: YANK01204
Sample ID: 177260007 Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	106	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	106	(25%–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
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- 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-050I	Project:	YANK01204
Sample ID:	177260008	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	24.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.994	+/-0.182	0.0542	+/-0.182	0.114	pCi/g		MJH1	12/11/06	1833	594413	
Americium-241	U	0.0931	+/-0.0677	0.0505	+/-0.0677	0.103	pCi/g						
Bismuth-212		0.688	+/-0.220	0.112	+/-0.220	0.233	pCi/g						
Bismuth-214		0.738	+/-0.117	0.029	+/-0.117	0.060	pCi/g						
Cesium-134	UI	0.00	+/-0.0342	0.0196	+/-0.0342	0.0407	pCi/g						
Cesium-137		1.10	+/-0.107	0.0155	+/-0.107	0.0322	pCi/g						
Cobalt-60		0.297	+/-0.0435	0.0133	+/-0.0435	0.0286	pCi/g						
Europium-152	U	-0.0406	+/-0.0513	0.0419	+/-0.0513	0.0862	pCi/g						
Europium-154	U	-0.00872	+/-0.0561	0.0464	+/-0.0561	0.0982	pCi/g						
Europium-155	UI	0.00	+/-0.0621	0.0391	+/-0.0621	0.0797	pCi/g						
Lead-212		1.09	+/-0.100	0.0239	+/-0.100	0.049	pCi/g						
Lead-214		0.867	+/-0.105	0.0308	+/-0.105	0.0633	pCi/g						
Manganese-54	U	-0.0169	+/-0.0227	0.0149	+/-0.0227	0.0312	pCi/g						
Niobium-94	U	0.0153	+/-0.017	0.0145	+/-0.017	0.0301	pCi/g						
Potassium-40		9.66	+/-0.837	0.123	+/-0.837	0.265	pCi/g						
Radium-226		0.738	+/-0.117	0.029	+/-0.117	0.060	pCi/g						
Silver-108m	U	0.00136	+/-0.0179	0.0149	+/-0.0179	0.0307	pCi/g						
Thallium-208		0.337	+/-0.0499	0.0142	+/-0.0499	0.0295	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0739	+/-0.0155	0.010	+/-0.0161	0.0211	pCi/g		KSD1	12/22/06	1310	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–050I Project: YANK01204
Sample ID: 177260008 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	79	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	79	(25%–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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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–052I	Project:	YANK01204
Sample ID:	177260009	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	30.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.09	+/–0.163	0.0523	+/–0.163	0.110	pCi/g		MJH1	12/11/06	1834	594413	
Americium–241	U	0.067	+/–0.0913	0.0691	+/–0.0913	0.141	pCi/g						
Bismuth–212		0.545	+/–0.272	0.119	+/–0.272	0.249	pCi/g						
Bismuth–214		0.654	+/–0.0927	0.0309	+/–0.0927	0.0641	pCi/g						
Cesium–134	UI	0.00	+/–0.0404	0.0205	+/–0.0404	0.0427	pCi/g						
Cesium–137		1.63	+/–0.0697	0.0173	+/–0.0697	0.0361	pCi/g						
Cobalt–60	U	0.0261	+/–0.0278	0.0166	+/–0.0278	0.0354	pCi/g						
Europium–152	U	0.0151	+/–0.0586	0.0478	+/–0.0586	0.0982	pCi/g						
Europium–154	U	0.00351	+/–0.0591	0.0481	+/–0.0591	0.102	pCi/g						
Europium–155	U	0.0746	+/–0.0665	0.0457	+/–0.0665	0.0933	pCi/g						
Lead–212		1.12	+/–0.0621	0.026	+/–0.0621	0.0532	pCi/g						
Lead–214		0.806	+/–0.0925	0.0348	+/–0.0925	0.0716	pCi/g						
Manganese–54	U	0.00958	+/–0.0316	0.0158	+/–0.0316	0.033	pCi/g						
Niobium–94	U	0.00395	+/–0.0182	0.0154	+/–0.0182	0.032	pCi/g						
Potassium–40		8.90	+/–0.691	0.144	+/–0.691	0.311	pCi/g						
Radium–226		0.654	+/–0.0927	0.0309	+/–0.0927	0.0641	pCi/g						
Silver–108m	U	–0.0104	+/–0.0209	0.0164	+/–0.0209	0.0339	pCi/g						
Thallium–208		0.339	+/–0.0534	0.0157	+/–0.0534	0.0327	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.0649	+/–0.0106	0.00739	+/–0.0113	0.0152	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–052I Project: YANK01204
Sample ID: 177260009 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	121	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	121	(25%–125%)

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

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- > Result is greater than value reported
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- 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 26, 2006

Client Sample ID:	9522-0002-053I	Project:	YANK01204
Sample ID:	177260010	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	24%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.849	+/-0.171	0.042	+/-0.171	0.0885	pCi/g		MJH1	12/11/06	1834	594413	
Americium-241	U	-0.029	+/-0.0427	0.0338	+/-0.0427	0.069	pCi/g						
Bismuth-212		0.658	+/-0.233	0.098	+/-0.233	0.205	pCi/g						
Bismuth-214		0.752	+/-0.101	0.0244	+/-0.101	0.0506	pCi/g						
Cesium-134	UI	0.00	+/-0.0322	0.0169	+/-0.0322	0.0352	pCi/g						
Cesium-137		0.762	+/-0.0759	0.0128	+/-0.0759	0.0267	pCi/g						
Cobalt-60	U	0.0165	+/-0.0154	0.0136	+/-0.0154	0.0289	pCi/g						
Europium-152	U	-0.0266	+/-0.0412	0.0332	+/-0.0412	0.0685	pCi/g						
Europium-154	U	0.0285	+/-0.0428	0.0366	+/-0.0428	0.078	pCi/g						
Europium-155	U	0.0619	+/-0.0446	0.0333	+/-0.0446	0.068	pCi/g						
Lead-212		0.895	+/-0.085	0.0185	+/-0.085	0.0379	pCi/g						
Lead-214		0.764	+/-0.0962	0.0256	+/-0.0962	0.0528	pCi/g						
Manganese-54	U	0.012	+/-0.0175	0.0128	+/-0.0175	0.0268	pCi/g						
Niobium-94	U	0.011	+/-0.014	0.0123	+/-0.014	0.0256	pCi/g						
Potassium-40		8.70	+/-0.785	0.113	+/-0.785	0.243	pCi/g						
Radium-226		0.752	+/-0.101	0.0244	+/-0.101	0.0506	pCi/g						
Silver-108m	U	0.00436	+/-0.0231	0.0134	+/-0.0231	0.0275	pCi/g						
Thallium-208		0.241	+/-0.0451	0.0115	+/-0.0451	0.024	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0563	+/-0.0166	0.0127	+/-0.0172	0.0261	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–053I Project: YANK01204
Sample ID: 177260010 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:
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- 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-054I	Project:	YANK01204
Sample ID:	177260011	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	23.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.908	+/-0.101	0.0377	+/-0.101	0.0782	pCi/g		MJH1	12/11/06	1834	594413	
Americium-241	U	0.0148	+/-0.0519	0.041	+/-0.0519	0.0834	pCi/g						
Bismuth-212		0.874	+/-0.196	0.0759	+/-0.196	0.157	pCi/g						
Bismuth-214		0.712	+/-0.0662	0.0222	+/-0.0662	0.0456	pCi/g						
Cesium-134	UI	0.00	+/-0.0217	0.014	+/-0.0217	0.0289	pCi/g						
Cesium-137		1.24	+/-0.0432	0.0108	+/-0.0432	0.0223	pCi/g						
Cobalt-60		0.0293	+/-0.0212	0.0107	+/-0.0212	0.0225	pCi/g						
Europium-152	U	-0.0264	+/-0.0367	0.0298	+/-0.0367	0.061	pCi/g						
Europium-154	U	-0.0186	+/-0.0372	0.0307	+/-0.0372	0.0643	pCi/g						
Europium-155	U	0.0488	+/-0.0463	0.0316	+/-0.0463	0.0644	pCi/g						
Lead-212		1.02	+/-0.0425	0.0165	+/-0.0425	0.0338	pCi/g						
Lead-214		0.815	+/-0.0654	0.0216	+/-0.0654	0.0443	pCi/g						
Manganese-54		0.0249	+/-0.0146	0.0104	+/-0.0146	0.0215	pCi/g						
Niobium-94	U	0.00873	+/-0.0117	0.00994	+/-0.0117	0.0205	pCi/g						
Potassium-40		10.7	+/-0.515	0.0966	+/-0.515	0.204	pCi/g						
Radium-226		0.712	+/-0.0662	0.0222	+/-0.0662	0.0456	pCi/g						
Silver-108m	U	-0.00215	+/-0.0121	0.0104	+/-0.0121	0.0213	pCi/g						
Thallium-208		0.292	+/-0.0276	0.0108	+/-0.0276	0.0222	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90	U	0.0193	+/-0.0132	0.0105	+/-0.0132	0.0217	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–054I Project: YANK01204
Sample ID: 177260011 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
4	EPA 905.0 Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–055I	Project:	YANK01204
Sample ID:	177260012	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	24.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.759	+/–0.152	0.0465	+/–0.152	0.093	pCi/g		MJH1	12/11/06	1838	594413	
Americium–241	U	0.0454	+/–0.0613	0.0519	+/–0.0613	0.104	pCi/g						
Bismuth–212		0.412	+/–0.189	0.0836	+/–0.189	0.167	pCi/g						
Bismuth–214		0.819	+/–0.0985	0.0241	+/–0.0985	0.0483	pCi/g						
Cesium–134	UI	0.00	+/–0.0263	0.017	+/–0.0263	0.0339	pCi/g						
Cesium–137		1.10	+/–0.0848	0.015	+/–0.0848	0.0299	pCi/g						
Cobalt–60	U	0.0201	+/–0.0169	0.0152	+/–0.0169	0.0304	pCi/g						
Europium–152	U	5.970E–05	+/–0.0571	0.0373	+/–0.0571	0.0745	pCi/g						
Europium–154	U	–0.0299	+/–0.0468	0.0373	+/–0.0468	0.0746	pCi/g						
Europium–155	U	0.0242	+/–0.0459	0.0395	+/–0.0459	0.079	pCi/g						
Lead–212		0.890	+/–0.0879	0.0204	+/–0.0879	0.0408	pCi/g						
Lead–214		0.869	+/–0.102	0.028	+/–0.102	0.056	pCi/g						
Manganese–54	U	0.00687	+/–0.0151	0.0134	+/–0.0151	0.0267	pCi/g						
Niobium–94	U	0.0196	+/–0.0214	0.0133	+/–0.0214	0.0265	pCi/g						
Potassium–40		9.03	+/–0.785	0.118	+/–0.785	0.235	pCi/g						
Radium–226		0.819	+/–0.0985	0.0241	+/–0.0985	0.0483	pCi/g						
Silver–108m	U	–0.0069	+/–0.017	0.0125	+/–0.017	0.0249	pCi/g						
Thallium–208		0.276	+/–0.0386	0.0132	+/–0.0386	0.0264	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	–0.0113	+/–0.0121	0.0104	+/–0.0121	0.0215	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–055I Project: YANK01204
Sample ID: 177260012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	89	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	89	(25%–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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-057I	Project:	YANK01204
Sample ID:	177260013	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	26.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.19	+/-0.224	0.0763	+/-0.224	0.153	pCi/g		MJH1	12/11/06	1838	594413	
Americium-241	U	0.0366	+/-0.0391	0.0266	+/-0.0391	0.0533	pCi/g						
Bismuth-212		0.814	+/-0.417	0.161	+/-0.417	0.322	pCi/g						
Bismuth-214		0.805	+/-0.135	0.0401	+/-0.135	0.0802	pCi/g						
Cesium-134	UI	0.00	+/-0.0421	0.0285	+/-0.0421	0.0569	pCi/g						
Cesium-137		1.59	+/-0.174	0.0229	+/-0.174	0.0458	pCi/g						
Cobalt-60		0.077	+/-0.0384	0.0243	+/-0.0384	0.0486	pCi/g						
Europium-152	U	0.0312	+/-0.0858	0.0548	+/-0.0858	0.110	pCi/g						
Europium-154	U	-0.125	+/-0.0895	0.0639	+/-0.0895	0.128	pCi/g						
Europium-155	U	0.0492	+/-0.0549	0.0433	+/-0.0549	0.0865	pCi/g						
Lead-212		1.04	+/-0.112	0.0277	+/-0.112	0.0555	pCi/g						
Lead-214		0.872	+/-0.135	0.037	+/-0.135	0.074	pCi/g						
Manganese-54	U	0.00702	+/-0.0269	0.0228	+/-0.0269	0.0455	pCi/g						
Niobium-94	U	0.0123	+/-0.0244	0.021	+/-0.0244	0.042	pCi/g						
Potassium-40		10.5	+/-0.944	0.203	+/-0.944	0.405	pCi/g						
Radium-226		0.805	+/-0.135	0.0401	+/-0.135	0.0802	pCi/g						
Silver-108m	U	-0.0173	+/-0.0248	0.0197	+/-0.0248	0.0393	pCi/g						
Thallium-208		0.359	+/-0.071	0.0205	+/-0.071	0.041	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.114	+/-0.0158	0.0106	+/-0.017	0.0218	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–057I Project: YANK01204
Sample ID: 177260013 Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	83	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	83	(25%–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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–058I	Project:	YANK01204
Sample ID:	177260014	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04–DEC–06		
Receive Date:	07–DEC–06		
Collector:	Client		
Moisture:	27.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.898	+/–0.241	0.0645	+/–0.241	0.145	pCi/g		MJH1	12/12/06	0633	594413	
Americium–241	U	–0.121	+/–0.103	0.0835	+/–0.103	0.174	pCi/g						
Bismuth–212		0.866	+/–0.382	0.168	+/–0.382	0.365	pCi/g						
Bismuth–214		0.705	+/–0.124	0.0375	+/–0.124	0.0814	pCi/g						
Cesium–134	UI	0.00	+/–0.0428	0.0283	+/–0.0428	0.0611	pCi/g						
Cesium–137		1.62	+/–0.154	0.021	+/–0.154	0.0457	pCi/g						
Cobalt–60	U	0.0515	+/–0.0522	0.0234	+/–0.0522	0.0529	pCi/g						
Europium–152	U	0.0318	+/–0.0766	0.0637	+/–0.0766	0.134	pCi/g						
Europium–154	U	0.059	+/–0.075	0.0704	+/–0.075	0.157	pCi/g						
Europium–155	U	0.0505	+/–0.0717	0.0628	+/–0.0717	0.131	pCi/g						
Lead–212		0.835	+/–0.106	0.0335	+/–0.106	0.0701	pCi/g						
Lead–214		0.729	+/–0.138	0.0486	+/–0.138	0.102	pCi/g						
Manganese–54	U	0.0211	+/–0.0376	0.020	+/–0.0376	0.0439	pCi/g						
Niobium–94	U	0.013	+/–0.0225	0.0199	+/–0.0225	0.0432	pCi/g						
Potassium–40		6.23	+/–0.976	0.151	+/–0.976	0.363	pCi/g						
Radium–226		0.705	+/–0.124	0.0375	+/–0.124	0.0814	pCi/g						
Silver–108m	U	–0.0157	+/–0.0269	0.0222	+/–0.0269	0.047	pCi/g						
Thallium–208		0.268	+/–0.0602	0.0203	+/–0.0602	0.044	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	–0.00527	+/–0.0121	0.0103	+/–0.0121	0.0212	pCi/g		KSD1	12/19/06	2205	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	12/07/06	1453	593892

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 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–058I Project: YANK01204
Sample ID: 177260014 Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	85	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	85	(25%–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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-0591	Project:	YANK01204
Sample ID:	177260015	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	24.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.559	+/-0.152	0.065	+/-0.152	0.141	pCi/g		MJH1	12/12/06	0634	594413	
Americium-241	U	0.0816	+/-0.111	0.0867	+/-0.111	0.180	pCi/g						
Bismuth-212		0.547	+/-0.322	0.103	+/-0.322	0.228	pCi/g						
Bismuth-214		0.424	+/-0.089	0.0352	+/-0.089	0.075	pCi/g						
Cesium-134	U	-0.0053	+/-0.0228	0.0182	+/-0.0228	0.0396	pCi/g						
Cesium-137		1.33	+/-0.0847	0.0185	+/-0.0847	0.0397	pCi/g						
Cobalt-60	U	0.0241	+/-0.0172	0.0175	+/-0.0172	0.0393	pCi/g						
Europium-152	U	0.0681	+/-0.0783	0.0486	+/-0.0783	0.102	pCi/g						
Europium-154	U	0.0393	+/-0.0521	0.0484	+/-0.0521	0.109	pCi/g						
Europium-155	U	0.0458	+/-0.0592	0.0534	+/-0.0592	0.111	pCi/g						
Lead-212		0.633	+/-0.0638	0.0274	+/-0.0638	0.057	pCi/g						
Lead-214		0.457	+/-0.0804	0.0384	+/-0.0804	0.0805	pCi/g						
Manganese-54	U	0.0174	+/-0.0206	0.0183	+/-0.0206	0.0395	pCi/g						
Niobium-94	U	-0.00476	+/-0.0215	0.0175	+/-0.0215	0.0374	pCi/g						
Potassium-40		3.76	+/-0.691	0.163	+/-0.691	0.370	pCi/g						
Radium-226		0.424	+/-0.089	0.0352	+/-0.089	0.075	pCi/g						
Silver-108m	U	-0.00723	+/-0.0205	0.0173	+/-0.0205	0.0365	pCi/g						
Thallium-208		0.152	+/-0.0434	0.0174	+/-0.0434	0.0373	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium-90		0.0158	+/-0.0093	0.00739	+/-0.00934	0.0152	pCi/g		KSD1	12/19/06	1903	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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 905.0 Modified

GEL 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–059I Project: YANK01204
Sample ID: 177260015 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	121	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	121	(25%–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.

GEL 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: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-060I	Project:	YANK01204
Sample ID:	177260016	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	04-DEC-06		
Receive Date:	07-DEC-06		
Collector:	Client		
Moisture:	33.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.358	+/-0.198	0.0682	+/-0.198	0.136	pCi/g		MJH1	12/12/06	0639	594413	
Americium-241	U	-0.001	+/-0.134	0.0951	+/-0.134	0.190	pCi/g						
Bismuth-212		0.529	+/-0.277	0.170	+/-0.277	0.340	pCi/g						
Bismuth-214		0.379	+/-0.124	0.0434	+/-0.124	0.0868	pCi/g						
Cesium-134	U	0.0428	+/-0.0306	0.028	+/-0.0306	0.0559	pCi/g						
Cesium-137		3.02	+/-0.251	0.0232	+/-0.251	0.0464	pCi/g						
Cobalt-60	UI	0.00	+/-0.0693	0.0194	+/-0.0693	0.0388	pCi/g						
Europium-152	U	-0.0399	+/-0.104	0.0698	+/-0.104	0.140	pCi/g						
Europium-154	U	-0.0305	+/-0.0761	0.0588	+/-0.0761	0.118	pCi/g						
Europium-155	U	-0.00537	+/-0.0861	0.0687	+/-0.0861	0.137	pCi/g						
Lead-210		8.67	+/-5.02	2.46	+/-5.02	4.92	pCi/g						
Lead-212		0.589	+/-0.0924	0.038	+/-0.0924	0.0759	pCi/g						
Lead-214		0.498	+/-0.136	0.0507	+/-0.136	0.101	pCi/g						
Manganese-54	U	0.00439	+/-0.0278	0.0234	+/-0.0278	0.0468	pCi/g						
Niobium-94	U	0.00992	+/-0.026	0.0214	+/-0.026	0.0428	pCi/g						
Potassium-40	UI	0.00	+/-0.753	0.207	+/-0.753	0.414	pCi/g						
Radium-226		0.379	+/-0.124	0.0434	+/-0.124	0.0868	pCi/g						
Silver-108m	U	0.0146	+/-0.033	0.0275	+/-0.033	0.055	pCi/g						
Thallium-208		0.137	+/-0.0553	0.024	+/-0.0553	0.048	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid - 0.025 pCi/g													
Strontium-90		0.0833	+/-0.0152	0.0108	+/-0.0157	0.0223	pCi/g		KSD1	12/19/06	1903	596650	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/07/06	1453	593892

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–060I Project: YANK01204
Sample ID: 177260016 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
4	EPA 905.0 Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

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
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- 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.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: December 26, 2006

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 594000										
QC1201242361 177260001 DUP										
Americium-241	U	0.116	U	-0.0448	pCi/g	452		(0% - 100%)	PXH2	12/08/06 19:28
	Uncert:	+/-0.141		+/-0.0519						
	TPU:	+/-0.142		+/-0.0522						
Curium-242	U	-0.00578	U	-0.0176	pCi/g	101		(0% - 100%)		
	Uncert:	+/-0.0643		+/-0.0761						
	TPU:	+/-0.0643		+/-0.0761						
Curium-243/244	U	0.223	U	-0.0821	pCi/g	433		(0% - 100%)		
	Uncert:	+/-0.190		+/-0.146						
	TPU:	+/-0.192		+/-0.146						
QC1201242363 LCS										
Americium-241	13.0			13.7	pCi/g		105	(75%-125%)		
	Uncert:			+/-1.22						
	TPU:			+/-2.03						
Curium-242			U	-0.0272	pCi/g					
	Uncert:			+/-0.0617						
	TPU:			+/-0.0617						
Curium-243/244	11.2			11.6	pCi/g		104	(75%-125%)		
	Uncert:			+/-1.12						
	TPU:			+/-1.77						
QC1201242360 MB										
Americium-241			U	0.151	pCi/g					
	Uncert:			+/-0.163						
	TPU:			+/-0.164						
Curium-242			U	0.010	pCi/g					
	Uncert:			+/-0.0761						
	TPU:			+/-0.0761						
Curium-243/244			U	-0.0342	pCi/g					
	Uncert:			+/-0.0774						
	TPU:			+/-0.0774						
QC1201242362 177260001 MS										
Americium-241	13.5 U	0.116		12.4	pCi/g		92	(75%-125%)		
	Uncert:	+/-0.141		+/-1.28						
	TPU:	+/-0.142		+/-1.99						
Curium-242	U	-0.00578	U	0.0808	pCi/g					
	Uncert:	+/-0.0643		+/-0.143						
	TPU:	+/-0.0643		+/-0.144						
Curium-243/244	11.6 U	0.223		12.6	pCi/g		109	(75%-125%)		
	Uncert:	+/-0.190		+/-1.30						
	TPU:	+/-0.192		+/-2.02						
Batch 594644										
QC1201243804 177260001 DUP										
Plutonium-241	U	-1.52	U	4.08	pCi/g	0		(0% - 100%)	PXH2	12/13/06 17:38

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 594644										
	Uncert:	+/-6.66		+/-7.07						
	TPU:	+/-6.66		+/-7.08						
QC1201243806 LCS										
Plutonium-241	137			124	pCi/g		91	(75%-125%)		12/13/06 18:10
	Uncert:			+/-11.7						
	TPU:			+/-17.2						
QC1201243803 MB										
Plutonium-241			U	0.911	pCi/g					12/13/06 17:22
	Uncert:			+/-6.54						
	TPU:			+/-6.54						
QC1201243805 177260001 MS										
Plutonium-241	139 U	-1.52		132	pCi/g		95	(75%-125%)		12/13/06 17:54
	Uncert:	+/-6.66		+/-12.0						
	TPU:	+/-6.66		+/-17.9						
Batch 594927										
QC1201244465 177260001 DUP										
Plutonium-238	U	0.0371	U	0.0392	pCi/g	6		(0% - 100%)	GXR1	12/12/06 13:58
	Uncert:	+/-0.104		+/-0.0886						
	TPU:	+/-0.105		+/-0.0887						
Plutonium-239/240	U	0.108	U	0.0846	pCi/g	24		(0% - 100%)		
	Uncert:	+/-0.144		+/-0.105						
	TPU:	+/-0.144		+/-0.105						
QC1201244467 LCS										
Plutonium-238			U	0.0393	pCi/g			(75%-125%)		12/12/06 13:58
	Uncert:			+/-0.0738						
	TPU:			+/-0.0739						
Plutonium-239/240	12.0			11.3	pCi/g		94	(75%-125%)		
	Uncert:			+/-1.06						
	TPU:			+/-1.64						
QC1201244464 MB										
Plutonium-238			U	0.0197	pCi/g					12/12/06 13:58
	Uncert:			+/-0.0523						
	TPU:			+/-0.0523						
Plutonium-239/240			U	-0.0125	pCi/g					
	Uncert:			+/-0.0537						
	TPU:			+/-0.0537						
QC1201244466 177260001 MS										
Plutonium-238	U	0.0371		0.111	pCi/g			(75%-125%)		12/12/06 13:58
	Uncert:	+/-0.104		+/-0.109						
	TPU:	+/-0.105		+/-0.110						
Plutonium-239/240	12.9 U	0.108		12.3	pCi/g		95	(75%-125%)		
	Uncert:	+/-0.144		+/-1.15						
	TPU:	+/-0.144		+/-1.79						
Rad Gamma Spec										
Batch 594413										
QC1201243212 177260001 DUP										
Actinium-228		1.08		1.29	pCi/g	18		(0% - 100%)	MJH1	12/12/06 06:35
	Uncert:	+/-0.211		+/-0.301						
				+/-0.301						

QC Summary

Workorder: **177260**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 594413											
	TPU:	+/-0.211									
Americium-241	U	0.0259	U	0.0417	pCi/g	47		(0% - 100%)			
	Uncert:	+/-0.0406		+/-0.0727							
	TPU:	+/-0.0406		+/-0.0727							
Bismuth-212		0.922		0.758	pCi/g	20		(0% - 100%)			
	Uncert:	+/-0.336		+/-0.451							
	TPU:	+/-0.336		+/-0.451							
Bismuth-214		0.755		0.768	pCi/g	2		(0% - 100%)			
	Uncert:	+/-0.107		+/-0.183							
	TPU:	+/-0.107		+/-0.183							
Cesium-134	UI	0.00	U	0.0583	pCi/g	39		(0% - 100%)			
	Uncert:	+/-0.0431		+/-0.0809							
	TPU:	+/-0.0431		+/-0.0809							
Cesium-137		3.39		3.32	pCi/g	2		(0% - 20%)			
	Uncert:	+/-0.113		+/-0.183							
	TPU:	+/-0.113		+/-0.183							
Cobalt-60		0.0666	U	0.0746	pCi/g	11		(0% - 100%)			
	Uncert:	+/-0.0471		+/-0.0781							
	TPU:	+/-0.0471		+/-0.0781							
Europium-152	U	-0.02	U	-0.127	pCi/g	146		(0% - 100%)			
	Uncert:	+/-0.0649		+/-0.103							
	TPU:	+/-0.0649		+/-0.103							
Europium-154	U	0.026	U	0.0166	pCi/g	44		(0% - 100%)			
	Uncert:	+/-0.0667		+/-0.0982							
	TPU:	+/-0.0667		+/-0.0982							
Europium-155	U	0.0575	U	0.0479	pCi/g	18		(0% - 100%)			
	Uncert:	+/-0.0664		+/-0.0911							
	TPU:	+/-0.0664		+/-0.0911							
Lead-210		3.68		2.88	pCi/g	24		(0% - 100%)			
	Uncert:	+/-0.645		+/-0.943							
	TPU:	+/-0.645		+/-0.943							
Lead-212		1.12		1.05	pCi/g	6		(0% - 20%)			
	Uncert:	+/-0.0679		+/-0.111							
	TPU:	+/-0.0679		+/-0.111							
Lead-214		0.892		1.05	pCi/g	16		(0% - 20%)			
	Uncert:	+/-0.114		+/-0.177							
	TPU:	+/-0.114		+/-0.177							
Manganese-54	U	0.00171	U	0.00249	pCi/g	37		(0% - 100%)			
	Uncert:	+/-0.024		+/-0.0384							
	TPU:	+/-0.024		+/-0.0384							
Niobium-94	U	0.0108	U	0.0191	pCi/g	55		(0% - 100%)			
	Uncert:	+/-0.0217		+/-0.0391							
	TPU:	+/-0.0217		+/-0.0391							
Potassium-40		8.12		8.28	pCi/g	2		(0% - 20%)			
	Uncert:	+/-0.774		+/-1.17							
	TPU:	+/-0.774		+/-1.17							
Radium-226		0.755		0.768	pCi/g	2		(0% - 100%)			
	Uncert:	+/-0.107		+/-0.183							

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 594413										
	TPU:	+/-0.107		+/-0.183						
Silver-108m	U	0.0094	U	0.00371	pCi/g	87		(0% - 100%)		
	Uncert:	+/-0.0241		+/-0.043						
	TPU:	+/-0.0241		+/-0.043						
Thallium-208		0.359		0.422	pCi/g	16		(0%-20%)		
	Uncert:	+/-0.0494		+/-0.087						
	TPU:	+/-0.0494		+/-0.087						
QC1201243213 LCS										
Actinium-228			U	-0.222	pCi/g					12/12/06 06:35
	Uncert:			+/-0.543						
	TPU:			+/-0.543						
Americium-241	23.4			26.6	pCi/g		114	(75%-125%)		
	Uncert:			+/-2.42						
	TPU:			+/-2.42						
Bismuth-212			U	0.246	pCi/g					
	Uncert:			+/-0.986						
	TPU:			+/-0.986						
Bismuth-214			U	0.0949	pCi/g					
	Uncert:			+/-0.211						
	TPU:			+/-0.211						
Cesium-134			U	0.0537	pCi/g					
	Uncert:			+/-0.132						
	TPU:			+/-0.132						
Cesium-137	9.52			10.3	pCi/g		108	(75%-125%)		
	Uncert:			+/-1.03						
	TPU:			+/-1.03						
Cobalt-60	14.0			14.9	pCi/g		107	(75%-125%)		
	Uncert:			+/-1.08						
	TPU:			+/-1.08						
Europium-152			U	0.202	pCi/g					
	Uncert:			+/-0.256						
	TPU:			+/-0.256						
Europium-154			U	-0.125	pCi/g					
	Uncert:			+/-0.231						
	TPU:			+/-0.231						
Europium-155			U	0.213	pCi/g					
	Uncert:			+/-0.269						
	TPU:			+/-0.269						
Lead-210			U	6.50	pCi/g					
	Uncert:			+/-15.7						
	TPU:			+/-15.7						
Lead-212			U	0.00145	pCi/g					
	Uncert:			+/-0.141						
	TPU:			+/-0.141						
Lead-214			U	0.0248	pCi/g					
	Uncert:			+/-0.181						
	TPU:			+/-0.181						
Manganese-54			U	-0.0626	pCi/g					

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 594413										
	Uncert:			+/-0.129						
	TPU:			+/-0.129						
Niobium-94			U	0.00705	pCi/g					
	Uncert:			+/-0.112						
	TPU:			+/-0.112						
Potassium-40			U	0.254	pCi/g					
	Uncert:			+/-0.874						
	TPU:			+/-0.874						
Radium-226			U	0.0949	pCi/g			(75%-125%)		
	Uncert:			+/-0.211						
	TPU:			+/-0.211						
Silver-108m			U	0.048	pCi/g					
	Uncert:			+/-0.111						
	TPU:			+/-0.111						
Thallium-208			U	-0.0366	pCi/g					
	Uncert:			+/-0.111						
	TPU:			+/-0.111						
QC1201243211 MB										
Actinium-228			U	0.0748	pCi/g					12/12/06 06:34
	Uncert:			+/-0.049						
	TPU:			+/-0.049						
Americium-241			U	0.0882	pCi/g					
	Uncert:			+/-0.0946						
	TPU:			+/-0.0946						
Bismuth-212			U	0.00978	pCi/g					
	Uncert:			+/-0.113						
	TPU:			+/-0.113						
Bismuth-214			UI	0.00	pCi/g					
	Uncert:			+/-0.0474						
	TPU:			+/-0.0474						
Cesium-134			U	0.00334	pCi/g					
	Uncert:			+/-0.018						
	TPU:			+/-0.018						
Cesium-137			U	-0.00718	pCi/g					
	Uncert:			+/-0.0149						
	TPU:			+/-0.0149						
Cobalt-60			U	-0.00126	pCi/g					
	Uncert:			+/-0.0165						
	TPU:			+/-0.0165						
Europium-152			U	-0.0477	pCi/g					
	Uncert:			+/-0.0505						
	TPU:			+/-0.0505						
Europium-154			U	0.0103	pCi/g					
	Uncert:			+/-0.0375						
	TPU:			+/-0.0375						
Europium-155			U	-0.0241	pCi/g					
	Uncert:			+/-0.0419						
	TPU:			+/-0.0419						

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 594413										
Lead-210			U	-0.246	pCi/g					
	Uncert:			+/-3.77						
	TPU:			+/-3.77						
Lead-212			U	0.000362	pCi/g					
	Uncert:			+/-0.0394						
	TPU:			+/-0.0394						
Lead-214			U	0.046	pCi/g					
	Uncert:			+/-0.0572						
	TPU:			+/-0.0572						
Manganese-54			U	0.0124	pCi/g					
	Uncert:			+/-0.0168						
	TPU:			+/-0.0168						
Niobium-94			U	-0.00611	pCi/g					
	Uncert:			+/-0.0146						
	TPU:			+/-0.0146						
Potassium-40			U	0.154	pCi/g					
	Uncert:			+/-0.187						
	TPU:			+/-0.187						
Radium-226			UI	0.00	pCi/g					
	Uncert:			+/-0.0474						
	TPU:			+/-0.0474						
Silver-108m			U	-0.0081	pCi/g					
	Uncert:			+/-0.0142						
	TPU:			+/-0.0142						
Thallium-208			U	0.0146	pCi/g					
	Uncert:			+/-0.018						
	TPU:			+/-0.018						
Rad Gas Flow										
Batch 596650										
QC1201248498 177260001 DUP										
Strontium-90		0.104		0.123	pCi/g	16		(0% - 100%)	KSD1	12/19/06 19:03
	Uncert:	+/-0.0415		+/-0.0158						
	TPU:	+/-0.0419		+/-0.0173						
QC1201248500 LCS										
Strontium-90	1.28			1.24	pCi/g		97	(75%-125%)		12/19/06 18:19
	Uncert:			+/-0.125						
	TPU:			+/-0.135						
QC1201248497 MB										
Strontium-90			U	0.00159	pCi/g					12/19/06 19:03
	Uncert:			+/-0.0102						
	TPU:			+/-0.0102						
QC1201248499 177260001 MS										
Strontium-90	3.84	0.104		3.75	pCi/g		95	(75%-125%)		12/19/06 18:19
	Uncert:	+/-0.0415		+/-0.396						
	TPU:	+/-0.0419		+/-0.420						
Rad Liquid Scintillation										
Batch 593875										
QC1201242066 177260002 DUP										

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 593875										
Technetium-99	U	0.0593	U	0.305	pCi/g	57		(0% - 100%)	KXR1	12/12/06 15:43
Uncert:		+/-0.187		+/-0.214						
TPU:		+/-0.187		+/-0.214						
QC1201242068 LCS										
Technetium-99	12.9			11.7	pCi/g		91	(75%-125%)		12/12/06 16:18
Uncert:				+/-0.503						
TPU:				+/-0.583						
QC1201242065 MB										
Technetium-99			U	-0.241	pCi/g					12/12/06 15:25
Uncert:				+/-0.181						
TPU:				+/-0.181						
QC1201242067 177260002 MS										
Technetium-99	12.9 U	0.0593		12.0	pCi/g		89	(75%-125%)		12/12/06 16:00
Uncert:		+/-0.187		+/-0.521						
TPU:		+/-0.187		+/-0.602						
Batch 593917										
QC1201242154 177260001 DUP										
Iron-55	U	15.5	U	-17.8	pCi/g	0		(0% - 100%)	MXP1	12/12/06 21:51
Uncert:		+/-38.3		+/-29.9						
TPU:		+/-38.4		+/-29.9						
QC1201242156 LCS										
Iron-55	643			662	pCi/g		103	(75%-125%)		12/12/06 22:23
Uncert:				+/-47.7						
TPU:				+/-97.6						
QC1201242153 MB										
Iron-55			U	-8.45	pCi/g					12/12/06 21:34
Uncert:				+/-23.5						
TPU:				+/-23.5						
QC1201242155 177260001 MS										
Iron-55	647 U	15.5		644	pCi/g		100	(75%-125%)		12/12/06 22:07
Uncert:		+/-38.3		+/-52.0						
TPU:		+/-38.4		+/-105						
Batch 593920										
QC1201242158 177260001 DUP										
Nickel-63	U	-9.45	U	-2.71	pCi/g	0		(0% - 100%)	MXP1	12/12/06 04:45
Uncert:		+/-10.3		+/-10.0						
TPU:		+/-10.3		+/-10.0						
QC1201242160 LCS										
Nickel-63	539			528	pCi/g		98	(75%-125%)		12/12/06 05:18
Uncert:				+/-25.1						
TPU:				+/-31.2						
QC1201242157 MB										
Nickel-63			U	-6.28	pCi/g					12/12/06 04:29
Uncert:				+/-9.56						
TPU:				+/-9.56						
QC1201242159 177260001 MS										
Nickel-63	539 U	-9.45		531	pCi/g		99	(75%-125%)		12/12/06 05:02
Uncert:		+/-10.3		+/-25.6						
TPU:		+/-10.3		+/-31.7						

QC Summary

Workorder: 177260

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 593922										
QC1201242166 177260001 DUP										
Carbon-14	U	0.0124	U	0.0666	pCi/g	0		(0% - 100%)	AXD2	12/08/06 20:01
	Uncert:	+/-0.115		+/-0.108						
	TPU:	+/-0.115		+/-0.108						
QC1201242168 LCS										
Carbon-14	6.67			6.44	pCi/g		97	(75%-125%)		12/08/06 22:09
	Uncert:			+/-0.199						
	TPU:			+/-0.223						
QC1201242165 MB										
Carbon-14			U	-0.116	pCi/g					12/08/06 18:57
	Uncert:			+/-0.103						
	TPU:			+/-0.103						
QC1201242167 177260001 MS										
Carbon-14	7.25 U	0.0124		5.27	pCi/g		73*	(75%-125%)		12/08/06 21:05
	Uncert:	+/-0.115		+/-0.197						
	TPU:	+/-0.115		+/-0.214						
Batch 595180										
QC1201245027 177260001 DUP										
Tritium	U	-0.717	U	0.896	pCi/g	0		(0% - 100%)	DFA1	12/14/06 11:31
	Uncert:	+/-1.19		+/-1.37						
	TPU:	+/-1.19		+/-1.37						
QC1201245029 LCS										
Tritium	7.44			7.22	pCi/g		97	(75%-125%)		12/14/06 12:36
	Uncert:			+/-0.904						
	TPU:			+/-0.912						
QC1201245026 MB										
Tritium			U	0.156	pCi/g					12/14/06 10:59
	Uncert:			+/-0.599						
	TPU:			+/-0.599						
QC1201245028 177260001 MS										
Tritium	26.8 U	-0.717		24.1	pCi/g		90	(75%-125%)		12/14/06 12:03
	Uncert:	+/-1.19		+/-5.40						
	TPU:	+/-1.19		+/-5.42						
Batch 597452										
QC1201250392 177260002 DUP										
Technetium-99	U	0.0593	U	0.0368	pCi/g	0		(0% - 100%)	KXR1	12/26/06 08:39
	Uncert:	+/-0.187		+/-0.176						
	TPU:	+/-0.187		+/-0.176						
QC1201250394 LCS										
Technetium-99	12.7			12.8	pCi/g		100	(75%-125%)		12/25/06 11:58
	Uncert:			+/-0.351						
	TPU:			+/-0.467						
QC1201250391 MB										
Technetium-99			U	0.00985	pCi/g					12/26/06 08:06
	Uncert:			+/-0.158						
	TPU:			+/-0.158						
QC1201250393 177260002 MS										
Technetium-99	12.8 U	0.0593		12.6	pCi/g		99	(75%-125%)		12/25/06 11:26
	Uncert:	+/-0.187		+/-0.370						

QC Summary

Workorder: **177260**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch 597452											
	TPU:	+/-0.187		+/-0.479							

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

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.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 176864
SDG: MSR#06-1460

December 01, 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 November 10, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
176864001	9522-0002-006F
176864002	9522-0002-009F
176864003	9522-0002-015F
176864004	9522-0002-030F
176864005	9522-0002-031F
176864006	9522-0002-032F
176864007	9522-0002-033F
176864008	9522-0002-037F

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 contained in the analytical case narratives in the enclosed data package.

Analytical Request

Eight soil samples were relogged for Strontium-90 analysis.

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 01 December 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

Chain of Custody Form

No. 2006-00647

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
176864 %
Sr-90 Relog
175906 % - FSS ALL
175908 % - ~~FSSGAM~~ FSSGAM

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-001F	10/30/06	0813	TS	G	BP		X						
9522-0002-002F	10/30/06	0757	TS	G	BP	X							
9522-0002-003F	10/30/06	0817	TS	G	BP	X							
9522-0002-004F	10/30/06	0741	TS	G	BP		X						
9522-0002-005F	10/30/06	1013	TS	G	BP	X							
9522-0002-006F	10/30/06	1020	TS	G	BP	X							
9522-0002-007F	10/30/06	0945	TS	G	BP	X							
9522-0002-007FS	10/30/06	0945	TS	G	BP	X							
9522-0002-008F	10/30/06	1031	TS	G	BP	X							
9522-0002-009F	10/30/06	1035	TS	G	BP	X							
9522-0002-010F	10/30/06	1051	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 146D SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3689 ~~4694~~ 8327
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00648

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
1759081

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-013F	10/30/06	1100	TS	G	BP	X							
9522-0002-011F	10/30/06	1322	TS	G	BP	X							
9522-0002-014F	10/30/06	1325	TS	G	BP	X							
9522-0002-016F	10/30/06	1328	TS	G	BP	X							
9522-0002-012F	10/30/06	1340	TS	G	BP	X							
9522-0002-015F	10/30/06	1400	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1464~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3589 ~~8327~~ ~~1644~~
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00652

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
175908'1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-043F	11/2/06	1032	TS	G	BP	X							
9522-0002-042F	11/2/06	1033	TS	G	BP	X							
9522-0002-041F	11/2/06	1034	TS	G	BP	X							
9522-0002-039F	11/2/06	1035	TS	G	BP	X							
9522-0002-040F	11/2/06	1058	TS	G	BP	X							
9522-0002-038F	11/2/06	1036	TS	G	BP	X							
9522-0002-037F	11/2/06	1037	TS	G	BP	X							
9522-0002-036F	11/2/06	1038	TS	G	BP	X							
9522-0002-030F	11/2/06	1309	TS	G	BP	X							
9522-0002-033F	11/2/06	1309	TS	G	BP	X							
9522-0002-034F	11/2/06	1308	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other 8350
7985 3879 ~~1683~~ 1116
Bill of Lading #

Internal Container Temp.: 19° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00653

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
175908'1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-035F	11/2/06	1311	TS	G	BP	X							
9522-0002-032F	11/2/06	1330	TS	G	BP	X							
9522-0002-029F	11/2/06	1332	TS	G	BP	X							
9522-0002-031F	11/2/06	1333	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other $350
7485 3879 ~~1683~~ 2148
Bill of Lading #

Internal Container Temp.: 19 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 11/8/06 1500
Date/Time: Tom Sides 11-10-06 9:15
3) Relinquished By Date/Time
Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSA #06-1460

Work Order Number: 175906, 175908

Shipping Container ID: 7985 3889 8327 Chain of Custody # 2006-00647, 2006-00648 2006-00654

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 [ ] NA [✓]
6. Number of samples in shipping container: 18
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: Tim Sids Date: 11-10-06

Telephoned to: ____ On ____ By ____

80 CPM

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175906, 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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*: 80 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 CAJ Date: 11/13/06

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR # 06-1460

Work Order Number: ~~175906~~ 175908 cy 11/14/06

Shipping Container ID: 7985 3889 8350 Chain of Custody # 2006-00652, 2006-00657

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 19°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA [✓]
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: Tam Sida Date: 11-10-06

Telephoned to: On By

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 175908
Date Received: 11-10-06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: TS	

	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*: 60 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 [illegible] Date: 11/14/06

Subject: Additional analysis on samples
From: "Arthur L. Hammond" <Hammond@CYAPCO.com>
Date: Wed, 29 Nov 2006 08:35:47 -0500
To: "Cheryl Jones" <cj@gel.com>
CC: "David Wojtkowiak" <wojtkowiak@cyapco.com>

Good morning Cheryl,

This is a request for additional analysis on samples GEL has previously counted. We are requesting Sr-90 analysis on the following samples:

9522-0002-006F
9522-0002-009F
9522-0002-015F
9522-0002-030F
9522-0002-031F
9522-0002-032F
9522-0002-033F
9522-0002-037F

These samples are on various COC's: 2006-00647, 00648, 00652, and 00653

Subject: Soil samples under MSRs 06-1505 and 06-1506
From: "Arthur L. Hammond" <Hammond@CYAPCO.com>
Date: Wed, 29 Nov 2006 15:25:23 -0500
To: "Cheryl Jones" <cj@gel.com>
CC: "Clyde Newson" <Newson@CYAPCO.com>, "Jeffrey D. Wagner" <Wagner@CYAPCO.com>, "John McCarthy" <McCarthy@CYAPCO.com>, "David Wojtkowiak" <wojtkowiak@cyapco.com>

Cheryl,

As for the request we made this morning, as soon as the results are available is fine. We're sending 24 samples under MSR 06-1505 and 52 samples under MSR 06-1506. (76 total) See attached COCs.

Thank you,

Arthur

	Content-Description:	SCAN6001_000.pdf
SCAN6001_000.pdf	**Content-Type:**	application/octet-stream
	Content-Encoding:	base64

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 176864

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:	593702
Prep Batch Number:	591864
Dry Soil Prep GL-RAD-A-021 Batch Number:	591862

Sample ID	Client ID
176864001	9522-0002-006F
176864002	9522-0002-009F
176864003	9522-0002-015F
176864004	9522-0002-030F
176864005	9522-0002-031F
176864006	9522-0002-032F
176864007	9522-0002-033F
176864008	9522-0002-037F
1201241672	Method Blank (MB)
1201241673	176864001(9522-0002-006F) Sample Duplicate (DUP)
1201241674	176864001(9522-0002-006F) Matrix Spike (MS)
1201241675	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 volume in this batch.

Designated QC
The following sample was used for QC: 176864001 (9522-0002-006F).

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 carrier/tracer yield.

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

Miscellaneous Information:

NCR Documentation
The following NCR was generated for this SDG: 390810 The Sr-90 calibration used to process this batch expired on 11/30/06, but was extended and is currently in the process of being recalibrated. 1. Laboratory Control Samples, Matrix Spikes, and daily efficiencies are being monitored to ensure proper instrument performance. Reporting results.

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: J L Austin 12/9/2006

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-DEC-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Solid	YANK001
Batch ID:	**Sample Numbers:**		
593702	See below		

Potentially affected work order(s)(SDG): 176864(MSR#06-1460)

Application Issues:

Other

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The Sr-90 calibration used to process this batch expired on 11/30/06, but was extended and is currently in the process of being recalibrated.	1. Laboratory Control Samples, Matrix Spikes, and daily efficiencies are being monitored to ensure proper instrument performance. Reporting results.

Originator's Name:

Wendy Hicks 09-DEC-06

Data Validator/Group Leader:

Theresa Austin 09-DEC-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#06-1460 GEL Work Order: 176864

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.

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.

J M J Austin 12/9/2006

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 9, 2006

Client Sample ID:	9522–0002–006F	Project:	YANK01204
Sample ID:	176864001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0347	+/–0.0221	0.0142	+/–0.0221	0.0329	pCi/g		KSD1	12/08/06	1526	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	98	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	98	(25%–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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–006F — Project: YANK01204
Sample ID: 176864001 — Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-009F	Project:	YANK01204
Sample ID:	176864002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	30.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0227	+/-0.018	0.0115	+/-0.018	0.0277	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	96	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	96	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–009F Project: YANK01204
Sample ID: 176864002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-015F	Project:	YANK01204
Sample ID:	176864003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	35.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0547	+/-0.0257	0.0155	+/-0.0257	0.0355	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	99	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	99	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–015F Project: YANK01204
Sample ID: 176864003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-030F	Project:	YANK01204
Sample ID:	176864004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	40.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0745	+/-0.0259	0.0139	+/-0.0259	0.032	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	103	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	103	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-030F Project: YANK01204
Sample ID: 176864004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-031F	Project:	YANK01204
Sample ID:	176864005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.027	+/-0.0184	0.0117	+/-0.0184	0.0276	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	96	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	96	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–031F Project: YANK01204
Sample ID: 176864005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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 — Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–032F	Project:	YANK01204
Sample ID:	176864006	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	45.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.111	+/–0.0315	0.0144	+/–0.0316	0.0338	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	92	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	92	(25%–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.

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–032F Project: YANK01204
Sample ID: 176864006 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–033F	Project:	YANK01204
Sample ID:	176864007	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	39.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0705	+/–0.0259	0.0143	+/–0.0259	0.0328	pCi/g		KSD1	12/08/06	1527	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	106	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	106	(25%–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.

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 Report Date: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–033F Project: YANK01204
Sample ID: 176864007 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–037F	Project:	YANK01204
Sample ID:	176864008	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	41.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0903	+/–0.0292	0.0142	+/–0.0293	0.0333	pCi/g		KSD1	12/08/06	1528	593702	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/01/06	1245	591862

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	96	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	96	(25%–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.

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: December 9, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–037F Project: YANK01204
Sample ID: 176864008 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 176864

Report Date: December 9, 2006

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 593702										
QC1201241673 176864001 DUP										
Strontium-90		0.0347		0.0336	pCi/g	3		(0% - 100%)	KSD1	12/08/06 15:29
	Uncert:	+/-0.0221		+/-0.0203						
	TPU:	+/-0.0221		+/-0.0203						
QC1201241675 LCS										
Strontium-90	1.56			1.51	pCi/g		96	(75%-125%)		12/08/06 15:29
	Uncert:			+/-0.137						
	TPU:			+/-0.140						
QC1201241672 MB										
Strontium-90			U	-0.00569	pCi/g					12/08/06 15:28
	Uncert:			+/-0.0139						
	TPU:			+/-0.0139						
QC1201241674 176864001 MS										
Strontium-90	5.11	0.0347		4.50	pCi/g		87	(75%-125%)		12/08/06 15:29
	Uncert:	+/-0.0221		+/-0.441						
	TPU:	+/-0.0221		+/-0.458						

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

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

QC Summary

Workorder: 176864

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.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 178538
SDG: MSR#07-0003

January 09, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 05, 2007 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I

Items of Note

Due to the short TAT requested, a modification to the Tc-99 procedure was allowed. See attached email.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (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

Five soil samples were analyzed for FSSALL.

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 09 January 2007

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. 2006-00741

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State):

On Site Counting Facility

Priority: ☐ 30 D. ☐ 15 D. ☒ 7 D.
Other:

Lab Use Only
Comments: 178538%

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSALL						Comment, Preservation	Lab Sample ID
9522-0002-061I	12/20/06	0848	TS	G	1LM	X							
9522-0002-062I	12/20/06	0847	TS	G	1LM	X							
9522-0002-063I	12/20/06	0907	TS	G	1LM	X							
9522-0002-064I	12/20/06	0939	TS	G	1LM	X							
9522-0002-065I	12/20/06	0916	TS	G	1LM	X							

NOTES: PO #: 002332 MSR #: 07-0003

☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #

Internal Container Temp.: 17 Deg. C

Custody Sealed? (Y) N

Custody Seal Intact? (Y) N

1) Relinquished By	Date/Time
2) Received By	Date/Time 1/5/07 10:15
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

GEL LABORATORIES LLC

PM use only

Client: Yank	SDG/ARCOC/Work Order: 178538
Date Received: 1/5/07	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: JP	

	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?	X			Maximum Counts Observed*: 80 cpm
B	PCB Regulated?	X			
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Hazard Class Shipped: UN#:
D	Regulated as a Foreign Soil?	X			

PM (or PMA) review of Hazard classification: ✓ Initials CAJ Date: 1/5/07

Figure 1. Sample Check-in List

Date/Time Received: 1/5/07 10:15.

SDG#: MSR#07-0003

Work Order Number: 1785381.

Shipping Container ID: 7916107804 97 Chain of Custody # 20060074 1

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 17°
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:

____tape	____hazard labels
X 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): COC not relinquished by client.

Sample Custodian/Laboratory: Jerron Politto Date: 1/5/07

Telephoned to:_____ On_____ By_____

Subject: RE: Soil samples
From: "Arthur L. Hammond" <Hammond@CYAPCO.com>
Date: Thu, 4 Jan 2007 09:02:45 -0500
To: "Cheryl Jones" <cj@gel.com>
CC: "David Wojtkowiak" <wojtkowiak@cyapco.com>, "Clyde Newson" <Newson@CYAPCO.com>, "John McCarthy" <McCarthy@CYAPCO.com>

Cheryl,

I spoke with the engineer assigned to the unit and management about the Tc-99 results and it is acceptable for the traced/untraced approach for these samples.

Thank you,

Arthur

-----Original Message-----
From: Cheryl Jones [mailto:cj@gel.com]
Sent: Wednesday, January 03, 2007 4:38 PM
To: Arthur L. Hammond
Cc: Clyde Newson; David Wojtkowiak; Jeffrey D. Wagner; John McCarthy
Subject: Re: Soil samples

Arthur,
As the FSSALL suite includes Tc-99, can you accept the Tc-99 traced/untraced approach for this quick TAT request? If not, the Tc-99 results may not meet the 7d TAT. We will do our very best either way.

Thanks,
Cheryl

Arthur L. Hammond wrote:

> Hello Cheryl,
>
> We will be shipping five (5) soil samples to GEL tomorrow, with a requested 7 day TAT and analyses request of FSSALL on all of the samples (see attached COC 2006-00741).
>
> Thanks,
>
> Arthur

--

Cheryl A. Jones
Project Manager/PM Team Leader
GEL 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

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

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:	600288
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256682	Method Blank (MB)
1201256683	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256684	178538001(9522-0002-061I) Matrix Spike (MS)
1201256685	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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.

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-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:	600289
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256686	Method Blank (MB)
1201256687	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256688	178538001(9522-0002-061I) Matrix Spike (MS)
1201256689	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volumes in this batch.

Designated QC
The following sample was used for QC: 178538001 (9522-0002-061I).

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 1201256686 (MB) and 178538001 (9522-0002-061I) were recounted due to a negative result greater than three times the 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.

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-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:	600291
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256690	Method Blank (MB)
1201256691	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256692	178538001(9522-0002-061I) Matrix Spike (MS)
1201256693	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volumes in this batch.

Designated QC
The following sample was used for QC: 178538001 (9522-0002-061I).

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, 1201256690 (MB) and 178538004 (9522-0002-064I), were recouted due to quench.

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:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	600353
Prep Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256820	Method Blank (MB)
1201256821	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256822	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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
The sample and the duplicate,1201256821 (9522-0002-061I) and 178538001 (9522-0002-061I), did not meet the relative percent difference requirement for Ac-228, however they do meet the relative error ratio requirement with value of 1.92125.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Europium-155	178538002
			178538003
			178538005
UI	Data rejected due to low abundance.	Cesium-134	178538002
			178538005
		Cobalt-60	1201256821
		Lead-212	1201256820
		Thallium-208	1201256820

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:	600294
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256697	Method Blank (MB)
1201256698	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256699	178538001(9522-0002-061I) Matrix Spike (MS)
1201256700	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volume in this batch.

Designated QC
The following sample was used for QC: 178538001 (9522-0002-061I).

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. 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-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	600298

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256706	Method Blank (MB)
1201256707	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256708	178538001(9522-0002-061I) Matrix Spike (MS)
1201256709	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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 399540 was generated due to Other. 1. Sample 178538004, 178538005 and duplicate 1201256707 were outside the calibration range, therefore, the calibration curve was extended to establish efficiency. The sampes were reanalyzed using a traced and untraced method, which had a laboratory control sample recovery that did not meet the client's requirements. The second analyses confirms the original results of no activity in the samples. 1. Reporting results.

Additional Comments
The blank result for 1201256706 (MB) is greater than the MDA but less than the detection limit.

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:	601320
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201259058	Method Blank (MB)
1201259059	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201259060	178538001(9522-0002-061I) Matrix Spike (MS)
1201259061	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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 178538001 (9522-0002-061I), 178538002 (9522-0002-062I), 178538003 (9522-0002-063I), 178538004 (9522-0002-064I) and 178538005 (9522-0002-065I) were reprepped due to the quench number being outside 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.

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-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:	601298
Prep Batch Number:	600265
Dry Soil Prep GL-RAD-A-021 Batch Number:	600264

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201258992	Method Blank (MB)
1201258993	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201258994	178538001(9522-0002-061I) Matrix Spike (MS)
1201258995	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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 1201258994 (9522-0002-061I) was recounted due to low/high recovery. Samples 178538001 (9522-0002-061I), 178538002 (9522-0002-062I), 178538003 (9522-0002-063I), 178538004 (9522-0002-064I) and 178538005 (9522-0002-065I) 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. The following NCR was generated for this SDG:
NCR 399255 was generated due to Failed Yield for Surrogates. 1. Sample 178538001 did not meet the carrier recovery requirement. The duplicate of the sample met the recovery requirement with a value of 91.19 percent. Both the sample and duplicate had results less than the achieved detection limit. All other batch requirements were met. 1. Reporting results. The sample result was similar to previous prep results.

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:	601299

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201258996	Method Blank (MB)
1201258997	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201258998	178538001(9522-0002-061I) Matrix Spike (MS)
1201258999	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volume in this batch.

Designated QC
The following sample was used for QC: 178538001 (9522-0002-061I).

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 1201258997 (9522-0002-061I), 178538001 (9522-0002-061I), 178538002 (9522-0002-062I), 178538003 (9522-0002-063I), 178538004 (9522-0002-064I) and 178538005 (9522-0002-065I) were recounted due to high MDAs. Samples 178538001 (9522-0002-061I), 178538002 (9522-0002-062I), 178538003 (9522-0002-063I), 178538004 (9522-0002-064I) and 178538005 (9522-0002-065I) 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:	**Liquid Scint C14, Solid All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	600299

Sample ID	Client ID
178538001	9522-0002-061I
178538002	9522-0002-062I
178538003	9522-0002-063I
178538004	9522-0002-064I
178538005	9522-0002-065I
1201256714	Method Blank (MB)
1201256715	178538001(9522-0002-061I) Sample Duplicate (DUP)
1201256716	178538001(9522-0002-061I) Matrix Spike (MS)
1201256717	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178538001 (9522-0002-061I).

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: Heather G. Arcoe 1/12/07

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-JAN-07	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:**		
600298	178538004, 178538005, 1201256707		

Potentially affected work order(s)(SDG): 178538(MSR#07-0003)

Application Issues:

Other

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 178538004, 178538005 and duplicate 1201256707 were outside the calibration range, therefore, the calibration curve was extended to establish efficiency. The sampes were reanalyzed using a traced and untraced method, which had a laboratory control sample recovery that did not meet the client's requirements. The second analyses confirms the original results of no activity in the samples.	1. Reporting results.

Originator's Name:

Layota Yom 12-JAN-07

Data Validator/Group Leader:

Heather Anderson 12-JAN-07

Quality Review:

Director:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-JAN-07	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Ni-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
601298	See Below		

Potentially affected work order(s)(SDG): 178538(MSR#07-0003)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 178538001 did not meet the carrier recovery requirement. The duplicate of the sample met the recovery requirement with a value of 91.19 percent. Both the sample and duplicate had results less than the achieved detection limit. All other batch requirements were met.	1. Reporting results. The sample result was similar to previous prep results.

Originator's Name:

John Parker 11-JAN-07

Data Validator/Group Leader:

Heather Anderson 12-JAN-07

Quality Review:

Director:

SAMPLE DATA SUMMARY

GEL 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#07-0003 GEL Work Order: 178538

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 GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-061I	Project:	YANK01204
Sample ID:	178538001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	20-DEC-06		
Receive Date:	05-JAN-07		
Collector:	Client		
Moisture:	34.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.0668	+/-0.102	0.0451	+/-0.102	0.169	pCi/g		MXA1	01/08/07	1427	600288	
Curium-242	U	-0.00757	+/-0.0636	0.0283	+/-0.0636	0.142	pCi/g						
Curium-243/244	U	-0.0198	+/-0.0675	0.069	+/-0.0675	0.217	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	0.0012	+/-0.0655	0.0541	+/-0.0655	0.190	pCi/g		MXA1	01/08/07	1720	600289	
Plutonium-239/240	U	0.0542	+/-0.107	0.0604	+/-0.107	0.202	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	1.28	+/-7.03	5.84	+/-7.03	12.2	pCi/g		MXA1	01/08/07	2115	600291	
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		1.11	+/-0.220	0.0743	+/-0.220	0.161	pCi/g		MJH1	01/08/07	1112	600353	
Americium-241	U	0.0226	+/-0.0457	0.0274	+/-0.0457	0.0565	pCi/g						
Bismuth-212		0.767	+/-0.290	0.149	+/-0.290	0.321	pCi/g						
Bismuth-214		0.763	+/-0.110	0.0415	+/-0.110	0.088	pCi/g						
Cesium-134	U	0.0477	+/-0.031	0.0255	+/-0.031	0.0546	pCi/g						
Cesium-137		1.87	+/-0.100	0.0217	+/-0.100	0.0463	pCi/g						
Cobalt-60	U	0.0188	+/-0.0285	0.0253	+/-0.0285	0.0554	pCi/g						
Europium-152	U	-0.0632	+/-0.0703	0.0529	+/-0.0703	0.111	pCi/g						
Europium-154	U	0.0315	+/-0.0946	0.0804	+/-0.0946	0.174	pCi/g						
Europium-155	U	0.0383	+/-0.0514	0.0451	+/-0.0514	0.0932	pCi/g						
Lead-212		0.811	+/-0.0702	0.0288	+/-0.0702	0.060	pCi/g						
Lead-214		0.745	+/-0.124	0.0409	+/-0.124	0.0856	pCi/g						
Manganese-54	U	-0.00509	+/-0.0327	0.0225	+/-0.0327	0.0483	pCi/g						
Niobium-94	U	0.003	+/-0.0244	0.0201	+/-0.0244	0.0428	pCi/g						
Potassium-40		9.39	+/-0.986	0.205	+/-0.986	0.459	pCi/g						
Radium-226		0.763	+/-0.110	0.0415	+/-0.110	0.088	pCi/g						
Silver-108m	U	-0.0202	+/-0.0251	0.0202	+/-0.0251	0.0425	pCi/g						
Thallium-208		0.283	+/-0.0596	0.0218	+/-0.0596	0.0463	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.209	+/-0.0443	0.0152	+/-0.0445	0.0365	pCi/g		KSD1	01/09/07	1811	600294	

GEL 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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–061I Project: YANK01204
Sample ID: 178538001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–0.369	+/–1.04	0.884	+/–1.04	1.84	pCi/g		AXD2	01/11/07	1101	601299	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.0369	+/–0.119	0.0991	+/–0.119	0.202	pCi/g		AXD2	01/08/07	1601	600299	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–28	+/–62.9	51.4	+/–63.0	110	pCi/g		KXR1	01/11/07	1227	601320	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–3.48	+/–6.24	5.39	+/–6.24	11.3	pCi/g		KXR1	01/11/07	0948	601298	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	0.136	+/–0.126	0.0958	+/–0.126	0.207	pCi/g		MXP1	01/11/07	1015	600298	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	01/05/07	1125	600264

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 906.0 Modified
9	EPA EERF C–01 Modified
10	DOE RESL Fe–1, Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE RESL Ni–1, Modified
15	DOE EML HASL–300, Tc–02–RC Modified
16	DOE EML HASL–300, Tc–02–RC Modified
17	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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–061I Project: YANK01204
Sample ID: 178538001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N
18	DOE EML HASL–300, Tc–02–RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	93	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	81	(15%–125%)
Strontium–90	GFPC, Sr90, solid–ALL FSS	85	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	85	(25%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	135*	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	135*	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	81	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	81	(15%–125%)

Notes:

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
- < 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
- ND Analyte concentration is not detected above the detection limit
- 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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–062I	Project:	YANK01204
Sample ID:	178538002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	20–DEC–06		
Receive Date:	05–JAN–07		
Collector:	Client		
Moisture:	28.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium–241	U	–0.0768	+/–0.169	0.164	+/–0.169	0.416	pCi/g		MXA 1	01/08/07	1427	600288	
Curium–242	U	0.00285	+/–0.110	0.0904	+/–0.110	0.277	pCi/g						
Curium–243/244	U	–0.00263	+/–0.144	0.121	+/–0.144	0.332	pCi/g						
Alphaspec Pu, Solid–ALL FSS													
Plutonium–238	U	0.0338	+/–0.0951	0.0583	+/–0.0952	0.205	pCi/g		MXA 1	01/07/07	1100	600289	
Plutonium–239/240	U	–0.0442	+/–0.107	0.109	+/–0.107	0.306	pCi/g						
Liquid Scint Pu241, Solid–ALL FSS													
Plutonium–241	U	–2.02	+/–6.33	5.40	+/–6.33	11.3	pCi/g		MXA 1	01/08/07	2131	600291	
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.02	+/–0.135	0.0462	+/–0.135	0.098	pCi/g		MJH1	01/08/07	1528	600353	
Americium–241	U	0.0388	+/–0.0887	0.0721	+/–0.0887	0.148	pCi/g						
Bismuth–212		0.394	+/–0.249	0.105	+/–0.249	0.222	pCi/g						
Bismuth–214		0.874	+/–0.0873	0.027	+/–0.0873	0.0563	pCi/g						
Cesium–134	UI	0.00	+/–0.0241	0.0194	+/–0.0241	0.0404	pCi/g						
Cesium–137		1.14	+/–0.0631	0.0148	+/–0.0631	0.031	pCi/g						
Cobalt–60	U	0.0306	+/–0.0354	0.0144	+/–0.0354	0.031	pCi/g						
Europium–152	U	–0.00671	+/–0.0485	0.039	+/–0.0485	0.0806	pCi/g						
Europium–154	U	–0.0289	+/–0.0532	0.0423	+/–0.0532	0.0906	pCi/g						
Europium–155	UI	0.00	+/–0.0664	0.0417	+/–0.0664	0.0853	pCi/g						
Lead–212		1.08	+/–0.0589	0.0219	+/–0.0589	0.045	pCi/g						
Lead–214		0.925	+/–0.0866	0.029	+/–0.0866	0.0599	pCi/g						
Manganese–54	U	–0.00928	+/–0.0184	0.0145	+/–0.0184	0.0305	pCi/g						
Niobium–94	U	–0.0025	+/–0.0161	0.0132	+/–0.0161	0.0277	pCi/g						
Potassium–40		10.8	+/–0.738	0.141	+/–0.738	0.304	pCi/g						
Radium–226		0.874	+/–0.0873	0.027	+/–0.0873	0.0563	pCi/g						
Silver–108m	U	–0.0109	+/–0.016	0.0133	+/–0.016	0.0276	pCi/g						
Thallium–208		0.326	+/–0.0454	0.0147	+/–0.0454	0.0307	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0406	+/–0.0306	0.0205	+/–0.0306	0.0475	pCi/g		KSD1	01/09/07	1811	600294	
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: January 12, 2007

Client Sample ID: 9522–0002–062I
Sample ID: 178538002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–1.41	+/–1.50	1.30	+/–1.50	2.70	pCi/g		AXD2	01/11/07	1935	601299	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.120	+/–0.121	0.0992	+/–0.121	0.202	pCi/g		AXD2	01/08/07	1705	600299	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–23.5	+/–53.1	43.4	+/–53.1	92.5	pCi/g		KXR1	01/11/07	1244	601320	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–12.9	+/–10.7	9.53	+/–10.7	20.0	pCi/g		KXR1	01/11/07	1004	601298	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	–0.109	+/–0.113	0.103	+/–0.113	0.223	pCi/g		MXP1	01/11/07	1033	600298	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	01/05/07	1125	600264

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 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Fe–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE RESL Ni–1, Modified
15	DOE RESL Ni–1, Modified
16	DOE EML HASL–300, Tc–02–RC Modified
17	DOE EML HASL–300, Tc–02–RC Modified

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–062I Project: YANK01204
Sample ID: 178538002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
18	DOE EML HASL–300, Tc–02–RC Modified												
19	DOE EML HASL–300, Tc–02–RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	94	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	80	(15%–125%)
Strontium–90	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	73	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	73	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	91	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	91	(15%–125%)

Notes:

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
- < 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
- ND Analyte concentration is not detected above the detection limit
- 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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–063I	Project:	YANK01204
Sample ID:	178538003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	20–DEC–06		
Receive Date:	05–JAN–07		
Collector:	Client		
Moisture:	30.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium–241	U	–0.114	+/–0.136	0.157	+/–0.137	0.415	pCi/g		MXA 1	01/08/07	1427	600288	
Curium–242	U	0.102	+/–0.140	0.0514	+/–0.141	0.212	pCi/g						
Curium–243/244	U	0.0373	+/–0.212	0.167	+/–0.212	0.436	pCi/g						
Alphaspec Pu, Solid–ALL FSS													
Plutonium–238	U	–0.0357	+/–0.0919	0.0984	+/–0.0919	0.302	pCi/g		MXA 1	01/07/07	1100	600289	
Plutonium–239/240	U	–0.107	+/–0.159	0.170	+/–0.159	0.446	pCi/g						
Liquid Scint Pu241, Solid–ALL FSS													
Plutonium–241	U	–2.4	+/–7.55	6.43	+/–7.55	13.5	pCi/g		MXA 1	01/08/07	2148	600291	
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		1.09	+/–0.120	0.0521	+/–0.120	0.110	pCi/g		MJH1	01/08/07	1633	600353	
Americium–241	U	0.023	+/–0.0332	0.0178	+/–0.0332	0.0363	pCi/g						
Bismuth–212		0.733	+/–0.272	0.106	+/–0.272	0.223	pCi/g						
Bismuth–214		0.817	+/–0.0829	0.0269	+/–0.0829	0.056	pCi/g						
Cesium–134	U	0.0172	+/–0.0329	0.0194	+/–0.0329	0.0404	pCi/g						
Cesium–137		1.93	+/–0.0674	0.0158	+/–0.0674	0.0328	pCi/g						
Cobalt–60	U	0.0412	+/–0.0368	0.0211	+/–0.0368	0.0443	pCi/g						
Europium–152	U	0.00375	+/–0.0473	0.0382	+/–0.0473	0.0787	pCi/g						
Europium–154	U	–0.0314	+/–0.0552	0.0435	+/–0.0552	0.0927	pCi/g						
Europium–155	UI	0.00	+/–0.0508	0.0276	+/–0.0508	0.0566	pCi/g						
Lead–212		1.03	+/–0.050	0.0188	+/–0.050	0.0386	pCi/g						
Lead–214		0.903	+/–0.0744	0.0268	+/–0.0744	0.0553	pCi/g						
Manganese–54	U	–0.00338	+/–0.0184	0.0147	+/–0.0184	0.0308	pCi/g						
Niobium–94	U	0.00905	+/–0.0167	0.0141	+/–0.0167	0.0293	pCi/g						
Potassium–40		9.75	+/–0.695	0.133	+/–0.695	0.287	pCi/g						
Radium–226		0.817	+/–0.0829	0.0269	+/–0.0829	0.056	pCi/g						
Silver–108m	U	–0.0044	+/–0.0166	0.014	+/–0.0166	0.0288	pCi/g						
Thallium–208		0.323	+/–0.0404	0.0131	+/–0.0404	0.0274	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0768	+/–0.0366	0.0213	+/–0.0366	0.0496	pCi/g		KSD1	01/09/07	1811	600294	
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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–063I Project: YANK01204
Sample ID: 178538003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	0.300	+/–1.41	1.16	+/–1.41	2.49	pCi/g		AXD2	01/11/07	1729	601299	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.137	+/–0.121	0.0996	+/–0.121	0.203	pCi/g		AXD2	01/08/07	1808	600299	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	30.7	+/–61.6	47.6	+/–61.9	102	pCi/g		KXR1	01/11/07	1300	601320	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–2.64	+/–9.54	8.12	+/–9.54	17.0	pCi/g		KXR1	01/11/07	1020	601298	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	0.116	+/–0.152	0.119	+/–0.152	0.257	pCi/g		MXP1	01/11/07	1050	600298	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	01/05/07	1125	600264

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 906.0 Modified
9	EPA 906.0 Modified
10	EPA EERF C–01 Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Fe–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE RESL Ni–1, Modified
15	DOE RESL Ni–1, Modified
16	DOE EML HASL–300, Tc–02–RC Modified
17	DOE EML HASL–300, Tc–02–RC Modified

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–063I Project: YANK01204
Sample ID: 178538003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
18	DOE EML HASL–300, Tc–02–RC Modified												
19	DOE EML HASL–300, Tc–02–RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	90	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	66	(15%–125%)
Strontium–90	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	89	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	89	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	79	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	79	(15%–125%)

Notes:

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
- < 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
- ND Analyte concentration is not detected above the detection limit
- 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

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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–064I	Project:	YANK01204
Sample ID:	178538004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	20–DEC–06		
Receive Date:	05–JAN–07		
Collector:	Client		
Moisture:	46.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium–241	U	–0.000489	+/–0.111	0.0936	+/–0.111	0.281	pCi/g		MXA 1	01/08/07	1427	600288	
Curium–242	U	–0.0272	+/–0.0308	0.0587	+/–0.031	0.220	pCi/g						
Curium–243/244	U	–0.0905	+/–0.0932	0.121	+/–0.0938	0.336	pCi/g						
Alphaspec Pu, Solid–ALL FSS													
Plutonium–238	U	–0.0356	+/–0.0312	0.0595	+/–0.0314	0.199	pCi/g		MXA 1	01/07/07	1100	600289	
Plutonium–239/240	U	0.00237	+/–0.0911	0.0752	+/–0.0911	0.231	pCi/g						
Liquid Scint Pu241, Solid–ALL FSS													
Plutonium–241	U	–0.366	+/–6.79	5.71	+/–6.79	12.0	pCi/g		MXA 1	01/09/07	1007	600291	
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.725	+/–0.161	0.0592	+/–0.161	0.118	pCi/g		MJH1	01/08/07	1640	600353	
Americium–241	U	–0.152	+/–0.0874	0.066	+/–0.0874	0.132	pCi/g						
Bismuth–212		0.471	+/–0.274	0.128	+/–0.274	0.256	pCi/g						
Bismuth–214		0.608	+/–0.107	0.0371	+/–0.107	0.0742	pCi/g						
Cesium–134	U	0.0435	+/–0.0358	0.022	+/–0.0358	0.044	pCi/g						
Cesium–137		3.33	+/–0.233	0.0186	+/–0.233	0.0371	pCi/g						
Cobalt–60		0.146	+/–0.0348	0.0179	+/–0.0348	0.0358	pCi/g						
Europium–152	U	–0.00595	+/–0.0876	0.0545	+/–0.0876	0.109	pCi/g						
Europium–154	U	–0.0207	+/–0.0652	0.0522	+/–0.0652	0.104	pCi/g						
Europium–155	U	0.0229	+/–0.0717	0.0471	+/–0.0717	0.0941	pCi/g						
Lead–212		0.746	+/–0.0896	0.0287	+/–0.0896	0.0574	pCi/g						
Lead–214		0.749	+/–0.118	0.0372	+/–0.118	0.0743	pCi/g						
Manganese–54	U	0.010	+/–0.0207	0.0178	+/–0.0207	0.0355	pCi/g						
Niobium–94	U	–0.00125	+/–0.0209	0.0168	+/–0.0209	0.0335	pCi/g						
Potassium–40		7.43	+/–0.812	0.155	+/–0.812	0.310	pCi/g						
Radium–226		0.608	+/–0.107	0.0371	+/–0.107	0.0742	pCi/g						
Silver–108m	U	0.00601	+/–0.0271	0.0203	+/–0.0271	0.0405	pCi/g						
Thallium–208		0.237	+/–0.0461	0.018	+/–0.0461	0.0361	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.292	+/–0.0547	0.0173	+/–0.0551	0.0414	pCi/g		KSD1	01/09/07	1811	600294	
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: January 12, 2007

Client Sample ID: 9522–0002–064I
Sample ID: 178538004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	0.589	+/–1.13	0.927	+/–1.13	1.93	pCi/g		AXD2	01/11/07	1306	601299	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.0685	+/–0.120	0.0998	+/–0.120	0.203	pCi/g		AXD2	01/08/07	1912	600299	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–16.2	+/–49.8	40.1	+/–49.8	85.4	pCi/g		KXR1	01/11/07	1317	601320	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–2.35	+/–12.2	10.3	+/–12.2	21.7	pCi/g		KXR1	01/11/07	1037	601298	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	–0.651	+/–0.179	0.170	+/–0.179	0.351	pCi/g		MXP1	01/11/07	1108	600298	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	01/05/07	1125	600264

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 906.0 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 Fe–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE RESL Ni–1, Modified
15	DOE RESL Ni–1, Modified
16	DOE EML HASL–300, Tc–02–RC Modified
17	DOE EML HASL–300, Tc–02–RC Modified

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–064I Project: YANK01204
Sample ID: 178538004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
18	DOE EML HASL–300, Tc–02–RC Modified												
19	DOE EML HASL–300, Tc–02–RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	87	(15%–125%)
Plutonium–242	Alphaspec Pu, Solid–ALL FSS	89	(15%–125%)
Strontium–90	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Nickel–63	Liquid Scint Ni63, Solid–ALL FS	70	(25%–125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid–ALL FS	70	(25%–125%)
Technetium–99	Liquid Scint Tc99, Solid–ALL FS	50	(15%–125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid–ALL FS	50	(15%–125%)

Notes:

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
- < 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
- ND Analyte concentration is not detected above the detection limit
- 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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-065I	Project:	YANK01204
Sample ID:	178538005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	20-DEC-06		
Receive Date:	05-JAN-07		
Collector:	Client		
Moisture:	33.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	-0.0405	+/-0.180	0.165	+/-0.180	0.436	pCi/g		MXA1	01/08/07	1427	600288	
Curium-242	U	-0.00851	+/-0.0947	0.0854	+/-0.0947	0.286	pCi/g						
Curium-243/244	U	-0.113	+/-0.0639	0.122	+/-0.0655	0.350	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.0432	+/-0.0759	0.0876	+/-0.0761	0.259	pCi/g		MXA1	01/07/07	1100	600289	
Plutonium-239/240	U	0.0864	+/-0.125	0.0619	+/-0.126	0.207	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	1.13	+/-6.21	5.17	+/-6.21	10.8	pCi/g		MXA1	01/08/07	2220	600291	
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.885	+/-0.187	0.0593	+/-0.187	0.125	pCi/g		MJH1	01/08/07	1538	600353	
Americium-241	U	-0.00667	+/-0.0567	0.0435	+/-0.0567	0.0889	pCi/g						
Bismuth-212		0.367	+/-0.310	0.132	+/-0.310	0.276	pCi/g						
Bismuth-214		0.718	+/-0.121	0.0343	+/-0.121	0.0711	pCi/g						
Cesium-134	UI	0.00	+/-0.0274	0.0193	+/-0.0274	0.0402	pCi/g						
Cesium-137		5.27	+/-0.428	0.0172	+/-0.428	0.0359	pCi/g						
Cobalt-60		0.169	+/-0.0486	0.0146	+/-0.0486	0.0315	pCi/g						
Europium-152	U	-0.0615	+/-0.063	0.0489	+/-0.063	0.101	pCi/g						
Europium-154	U	0.0435	+/-0.0546	0.0469	+/-0.0546	0.100	pCi/g						
Europium-155	UI	0.00	+/-0.0612	0.0412	+/-0.0612	0.0844	pCi/g						
Lead-212		0.923	+/-0.100	0.0267	+/-0.100	0.0547	pCi/g						
Lead-214		0.900	+/-0.132	0.0361	+/-0.132	0.0742	pCi/g						
Manganese-54	U	0.0176	+/-0.0206	0.0178	+/-0.0206	0.0371	pCi/g						
Niobium-94	U	-0.00116	+/-0.0169	0.0141	+/-0.0169	0.0294	pCi/g						
Potassium-40		10.3	+/-0.932	0.125	+/-0.932	0.274	pCi/g						
Radium-226		0.718	+/-0.121	0.0343	+/-0.121	0.0711	pCi/g						
Silver-108m	U	0.0295	+/-0.0244	0.0202	+/-0.0244	0.0415	pCi/g						
Thallium-208		0.299	+/-0.0566	0.0169	+/-0.0566	0.0352	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.181	+/-0.0448	0.0191	+/-0.0451	0.0447	pCi/g		KSD1	01/09/07	1811	600294	
Rad Liquid Scintillation Analysis													

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East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: January 12, 2007

Client Sample ID: 9522–0002–065I
Sample ID: 178538005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid – 3 pCi/g													
Tritium	U	–0.101	+/–1.03	0.865	+/–1.03	1.80	pCi/g		AXD2	01/11/07	1408	601299	
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.196	+/–0.124	0.101	+/–0.124	0.206	pCi/g		AXD2	01/08/07	2016	600299	
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	–18.4	+/–59.4	48.2	+/–59.4	103	pCi/g		KXR1	01/11/07	1333	601320	
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–4.96	+/–6.78	5.91	+/–6.78	12.4	pCi/g		KXR1	01/11/07	1053	601298	
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	U	0.0531	+/–0.191	0.158	+/–0.191	0.333	pCi/g		MXP1	01/11/07	1210	600298	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	MXP2	01/05/07	1125	600264

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 906.0 Modified
9	EPA EERF C–01 Modified
10	DOE RESL Fe–1, Modified
11	DOE RESL Fe–1, Modified
12	DOE RESL Ni–1, Modified
13	DOE RESL Ni–1, Modified
14	DOE RESL Ni–1, Modified
15	DOE EML HASL–300, Tc–02–RC Modified
16	DOE EML HASL–300, Tc–02–RC Modified
17	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: January 12, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-065I Project: YANK01204
Sample ID: 178538005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	M
18	DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	86	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	92	(15%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	84	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	84	(25%-125%)
Nickel-63	Liquid Scint Ni63, Solid-ALL FS	123	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	123	(25%-125%)
Technetium-99	Liquid Scint Tc99, Solid-ALL FS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	72	(15%-125%)

Notes:

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- 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
- ND Analyte concentration is not detected above the detection limit
- 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.

QUALITY CONTROL DATA

QC Summary

Report Date: January 12, 2007
Page 1 of 9

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 600288										
QC1201256683 178538001 DUP										
Americium-241	U	0.0668	U	-0.00846	pCi/g	258		(0% - 100%)	MXA1	01/08/07 14:27
	Uncert:	+/-0.102		+/-0.114						
	TPU:	+/-0.102		+/-0.114						
Curium-242	U	-0.00757	U	-0.00917	pCi/g	19		(0% - 100%)		
	Uncert:	+/-0.0636		+/-0.077						
	TPU:	+/-0.0636		+/-0.0771						
Curium-243/244	U	-0.0198	U	-0.00282	pCi/g	150		(0% - 100%)		
	Uncert:	+/-0.0675		+/-0.154						
	TPU:	+/-0.0675		+/-0.154						
QC1201256685 LCS										
Americium-241	13.0			14.4	pCi/g		111	(75%-125%)		
	Uncert:			+/-1.31						
	TPU:			+/-2.35						
Curium-242			U	0.0264	pCi/g					
	Uncert:			+/-0.116						
	TPU:			+/-0.116						
Curium-243/244	15.7			17.3	pCi/g		110	(75%-125%)		
	Uncert:			+/-1.44						
	TPU:			+/-2.76						
QC1201256682 MB										
Americium-241			U	0.0366	pCi/g					01/08/07 14:27
	Uncert:			+/-0.112						
	TPU:			+/-0.112						
Curium-242			U	0.00147	pCi/g					
	Uncert:			+/-0.0797						
	TPU:			+/-0.0797						
Curium-243/244			U	0.0231	pCi/g					
	Uncert:			+/-0.155						
	TPU:			+/-0.155						
QC1201256684 178538001 MS										
Americium-241	13.5 U	0.0668		13.6	pCi/g		101	(75%-125%)		01/08/07 14:27
	Uncert:	+/-0.102		+/-1.26						
	TPU:	+/-0.102		+/-2.21						
Curium-242	U	-0.00757	U	-0.0609	pCi/g					
	Uncert:	+/-0.0636		+/-0.0825						
	TPU:	+/-0.0636		+/-0.0829						
Curium-243/244	16.4 U	-0.0198		17.7	pCi/g		108	(75%-125%)		
	Uncert:	+/-0.0675		+/-1.44						
	TPU:	+/-0.0675		+/-2.77						
Batch 600289										
QC1201256687 178538001 DUP										
Plutonium-238	U	0.0012	U	0.0484	pCi/g	190		(0% - 100%)	MXA1	01/07/07 11:00

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 600289										
	Uncert:	+/-0.0655		+/-0.0955						
	TPU:	+/-0.0655		+/-0.0956						
Plutonium-239/240	U	0.0542	U	0.0752	pCi/g	33		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.109						
	TPU:	+/-0.107		+/-0.109						
QC1201256689 LCS										
Plutonium-238			U	0.0364	pCi/g			(75%-125%)		
	Uncert:			+/-0.0822						
	TPU:			+/-0.0823						
Plutonium-239/240	12.0			13.6	pCi/g		113	(75%-125%)		
	Uncert:			+/-1.22						
	TPU:			+/-1.83						
QC1201256686 MB										
Plutonium-238			U	-0.0239	pCi/g					01/08/07 17:20
	Uncert:			+/-0.0541						
	TPU:			+/-0.0541						
Plutonium-239/240			U	-0.00996	pCi/g					
	Uncert:			+/-0.0783						
	TPU:			+/-0.0783						
QC1201256688 178538001 MS										
Plutonium-238	U	0.0012	U	0.151	pCi/g			(75%-125%)		01/07/07 11:00
	Uncert:	+/-0.0655		+/-0.227						
	TPU:	+/-0.0655		+/-0.227						
Plutonium-239/240	12.5 U	0.0542		14.1	pCi/g		113	(75%-125%)		
	Uncert:	+/-0.107		+/-1.45						
	TPU:	+/-0.107		+/-2.12						
Batch 600291										
QC1201256691 178538001 DUP										
Plutonium-241	U	1.28	U	-4.4	pCi/g	0		(0% - 100%)	MXA1	01/08/07 22:53
	Uncert:	+/-7.03		+/-6.80						
	TPU:	+/-7.03		+/-6.80						
QC1201256693 LCS										
Plutonium-241	138			127	pCi/g		92	(75%-125%)		01/08/07 23:26
	Uncert:			+/-11.3						
	TPU:			+/-17.2						
QC1201256690 MB										
Plutonium-241			U	-2.68	pCi/g					01/09/07 10:23
	Uncert:			+/-6.33						
	TPU:			+/-6.33						
QC1201256692 178538001 MS										
Plutonium-241	141 U	1.28		123	pCi/g		87	(75%-125%)		01/08/07 23:09
	Uncert:	+/-7.03		+/-11.8						
	TPU:	+/-7.03		+/-17.2						
Rad Gamma Spec										
Batch 600353										
QC1201256821 178538001 DUP										
Actinium-228		1.11		0.826	pCi/g	29		(0% - 100%)	MJH1	01/08/07 16:34
	Uncert:	+/-0.220		+/-0.188						
				+/-0.188						

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 600353											
	TPU:	+/-0.220									
Americium-241	U	0.0226	U	0.0171	pCi/g	28		(0% - 100%)			
	Uncert:	+/-0.0457		+/-0.0855							
	TPU:	+/-0.0457		+/-0.0855							
Bismuth-212		0.767		0.736	pCi/g	4		(0% - 100%)			
	Uncert:	+/-0.290		+/-0.296							
	TPU:	+/-0.290		+/-0.296							
Bismuth-214		0.763		0.720	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.110		+/-0.127							
	TPU:	+/-0.110		+/-0.127							
Cesium-134	U	0.0477	U	0.0364	pCi/g	27		(0% - 100%)			
	Uncert:	+/-0.031		+/-0.0241							
	TPU:	+/-0.031		+/-0.0241							
Cesium-137		1.87		1.67	pCi/g	11		(0% - 20%)			
	Uncert:	+/-0.100		+/-0.168							
	TPU:	+/-0.100		+/-0.168							
Cobalt-60	U	0.0188	UI	0.00	pCi/g	108		(0% - 100%)			
	Uncert:	+/-0.0285		+/-0.0369							
	TPU:	+/-0.0285		+/-0.0369							
Europium-152	U	-0.0632	U	-0.0532	pCi/g	17		(0% - 100%)			
	Uncert:	+/-0.0703		+/-0.0478							
	TPU:	+/-0.0703		+/-0.0478							
Europium-154	U	0.0315	U	0.0292	pCi/g	8		(0% - 100%)			
	Uncert:	+/-0.0946		+/-0.0591							
	TPU:	+/-0.0946		+/-0.0591							
Europium-155	U	0.0383	U	0.0499	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.0514		+/-0.052							
	TPU:	+/-0.0514		+/-0.052							
Lead-212		0.811		0.832	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.0702		+/-0.0847							
	TPU:	+/-0.0702		+/-0.0847							
Lead-214		0.745		0.807	pCi/g	8		(0% - 20%)			
	Uncert:	+/-0.124		+/-0.111							
	TPU:	+/-0.124		+/-0.111							
Manganese-54	U	-0.00509	U	0.00443	pCi/g	2870		(0% - 100%)			
	Uncert:	+/-0.0327		+/-0.0179							
	TPU:	+/-0.0327		+/-0.0179							
Niobium-94	U	0.003	U	0.0059	pCi/g	65		(0% - 100%)			
	Uncert:	+/-0.0244		+/-0.0186							
	TPU:	+/-0.0244		+/-0.0186							
Potassium-40		9.39		8.85	pCi/g	6		(0% - 20%)			
	Uncert:	+/-0.986		+/-0.899							
	TPU:	+/-0.986		+/-0.899							
Radium-226		0.763		0.720	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.110		+/-0.127							
	TPU:	+/-0.110		+/-0.127							
Silver-108m	U	-0.0202	U	0.00669	pCi/g	398		(0% - 100%)			
	Uncert:	+/-0.0251		+/-0.0186							

QC Summary

Workorder: **178538**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 600353										
	TPU:	+/-0.0251		+/-0.0186						
Thallium-208		0.283		0.252	pCi/g	12		(0% - 100%)		
	Uncert:	+/-0.0596		+/-0.0484						
	TPU:	+/-0.0596		+/-0.0484						
QC1201256822 LCS										
Actinium-228			U	0.443	pCi/g					01/08/07 15:32
	Uncert:			+/-0.635						
	TPU:			+/-0.635						
Americium-241	23.4			24.4	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.670						
	TPU:			+/-0.670						
Bismuth-212			U	0.488	pCi/g					
	Uncert:			+/-0.973						
	TPU:			+/-0.973						
Bismuth-214			U	0.160	pCi/g					
	Uncert:			+/-0.245						
	TPU:			+/-0.245						
Cesium-134			U	0.000297	pCi/g					
	Uncert:			+/-0.159						
	TPU:			+/-0.159						
Cesium-137	9.50			10.1	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.540						
	TPU:			+/-0.540						
Cobalt-60	13.8			14.4	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.760						
	TPU:			+/-0.760						
Europium-152			U	0.0298	pCi/g					
	Uncert:			+/-0.267						
	TPU:			+/-0.267						
Europium-154			U	0.040	pCi/g					
	Uncert:			+/-0.273						
	TPU:			+/-0.273						
Europium-155			U	-0.0544	pCi/g					
	Uncert:			+/-0.225						
	TPU:			+/-0.225						
Lead-212			U	0.113	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.138						
Lead-214			U	-0.145	pCi/g					
	Uncert:			+/-0.209						
	TPU:			+/-0.209						
Manganese-54			U	-0.0394	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.138						
Niobium-94			U	0.0239	pCi/g					
	Uncert:			+/-0.114						
	TPU:			+/-0.114						
Potassium-40			U	0.335	pCi/g					

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 600353										
	Uncert:			+/-0.935						
	TPU:			+/-0.935						
Radium-226			U	0.160	pCi/g			(75%-125%)		
	Uncert:			+/-0.245						
	TPU:			+/-0.245						
Silver-108m			U	0.0707	pCi/g					
	Uncert:			+/-0.109						
	TPU:			+/-0.109						
Thallium-208			U	0.101	pCi/g					
	Uncert:			+/-0.153						
	TPU:			+/-0.153						
QC1201256820 MB										
Actinium-228			U	0.0265	pCi/g					01/08/07 16:34
	Uncert:			+/-0.0353						
	TPU:			+/-0.0353						
Americium-241			U	3.050E-05	pCi/g					
	Uncert:			+/-0.0262						
	TPU:			+/-0.0262						
Bismuth-212			U	0.0721	pCi/g					
	Uncert:			+/-0.0783						
	TPU:			+/-0.0783						
Bismuth-214			U	0.0325	pCi/g					
	Uncert:			+/-0.0368						
	TPU:			+/-0.0368						
Cesium-134			U	0.00498	pCi/g					
	Uncert:			+/-0.0111						
	TPU:			+/-0.0111						
Cesium-137			U	0.00521	pCi/g					
	Uncert:			+/-0.00953						
	TPU:			+/-0.00953						
Cobalt-60			U	0.00128	pCi/g					
	Uncert:			+/-0.0181						
	TPU:			+/-0.0181						
Europium-152			U	0.0096	pCi/g					
	Uncert:			+/-0.0258						
	TPU:			+/-0.0258						
Europium-154			U	-0.00325	pCi/g					
	Uncert:			+/-0.0262						
	TPU:			+/-0.0262						
Europium-155			U	0.0109	pCi/g					
	Uncert:			+/-0.0235						
	TPU:			+/-0.0235						
Lead-212			UI	0.00	pCi/g					
	Uncert:			+/-0.0232						
	TPU:			+/-0.0232						
Lead-214			U	0.0155	pCi/g					
	Uncert:			+/-0.0195						
	TPU:			+/-0.0195						

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 600353										
Manganese-54			U	-0.00416	pCi/g					
	Uncert:			+/-0.0113						
	TPU:			+/-0.0113						
Niobium-94			U	-0.00675	pCi/g					
	Uncert:			+/-0.00995						
	TPU:			+/-0.00995						
Potassium-40			U	0.135	pCi/g					
	Uncert:			+/-0.218						
	TPU:			+/-0.218						
Radium-226			U	0.0325	pCi/g					
	Uncert:			+/-0.0368						
	TPU:			+/-0.0368						
Silver-108m			U	0.00482	pCi/g					
	Uncert:			+/-0.00916						
	TPU:			+/-0.00916						
Thallium-208			UI	0.00	pCi/g					
	Uncert:			+/-0.013						
	TPU:			+/-0.013						
Rad Gas Flow										
Batch 600294										
QC1201256698 178538001 DUP										
Strontium-90		0.209		0.216	pCi/g	4		(0% - 100%)	KSD1	01/09/07 18:12
	Uncert:	+/-0.0443		+/-0.0466						
	TPU:	+/-0.0445		+/-0.047						
QC1201256700 LCS										
Strontium-90	1.55			1.67	pCi/g		108	(75%-125%)		01/09/07 18:12
	Uncert:			+/-0.170						
	TPU:			+/-0.176						
QC1201256697 MB										
Strontium-90			U	0.00961	pCi/g					01/09/07 18:12
	Uncert:			+/-0.0205						
	TPU:			+/-0.0205						
QC1201256699 178538001 MS										
Strontium-90	1.60	0.209		1.54	pCi/g		84	(75%-125%)		01/09/07 18:12
	Uncert:	+/-0.0443		+/-0.169						
	TPU:	+/-0.0445		+/-0.175						
Rad Liquid Scintillation										
Batch 600298										
QC1201256707 178538001 DUP										
Technetium-99	U	0.136	U	-0.505	pCi/g	0*		(0% - 100%)	MXP1	01/11/07 13:00
	Uncert:	+/-0.126		+/-0.152						
	TPU:	+/-0.126		+/-0.152						
QC1201256709 LCS										
Technetium-99	13.0			12.7	pCi/g		98	(75%-125%)		01/11/07 13:50
	Uncert:			+/-0.455						
	TPU:			+/-0.555						
QC1201256706 MB										
Technetium-99				0.281	pCi/g					01/11/07 12:43

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 600298										
	Uncert:			+/-0.134						
	TPU:			+/-0.134						
QC1201256708 178538001 MS										
Technetium-99	13.0 U	0.136		11.9	pCi/g		91	(75%-125%)		01/11/07 13:33
	Uncert:	+/-0.126		+/-0.521						
	TPU:	+/-0.126		+/-0.599						
Batch 600299										
QC1201256715 178538001 DUP										
Carbon-14	U	0.0369	U	0.173	pCi/g	0		(0% - 100%)	AXD2	01/08/07 22:24
	Uncert:	+/-0.119		+/-0.123						
	TPU:	+/-0.119		+/-0.124						
QC1201256717 LCS										
Carbon-14	7.20			6.98	pCi/g		97	(75%-125%)		01/09/07 00:32
	Uncert:			+/-0.218						
	TPU:			+/-0.243						
QC1201256714 MB										
Carbon-14			U	-0.0646	pCi/g					01/08/07 21:20
	Uncert:			+/-0.116						
	TPU:			+/-0.116						
QC1201256716 178538001 MS										
Carbon-14	7.27 U	0.0369		6.79	pCi/g		94	(75%-125%)		01/08/07 23:28
	Uncert:	+/-0.119		+/-0.217						
	TPU:	+/-0.119		+/-0.242						
Batch 601298										
QC1201258993 178538001 DUP										
Nickel-63	U	-3.48	U	-6.63	pCi/g	0		(0% - 100%)	KXR1	01/11/07 11:25
	Uncert:	+/-6.24		+/-9.07						
	TPU:	+/-6.24		+/-9.07						
QC1201258995 LCS										
Nickel-63	572			445	pCi/g		78	(75%-125%)		01/11/07 11:58
	Uncert:			+/-23.5						
	TPU:			+/-28.5						
QC1201258992 MB										
Nickel-63			U	-5.66	pCi/g					01/11/07 11:09
	Uncert:			+/-8.79						
	TPU:			+/-8.79						
QC1201258994 178538001 MS										
Nickel-63	595 U	-3.48		456	pCi/g		77	(75%-125%)		01/11/07 15:14
	Uncert:	+/-6.24		+/-23.2						
	TPU:	+/-6.24		+/-28.6						
Batch 601299										
QC1201258997 178538001 DUP										
Tritium	U	-0.369	U	0.213	pCi/g	0		(0% - 100%)	AXD2	01/11/07 15:11
	Uncert:	+/-1.04		+/-1.02						
	TPU:	+/-1.04		+/-1.02						
QC1201258999 LCS										
Tritium	7.91			7.74	pCi/g		98	(75%-125%)		01/10/07 18:02
	Uncert:			+/-1.52						
	TPU:			+/-1.52						

QC Summary

Workorder: 178538

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 601299										
QC1201258996 MB										
Tritium			U	-0.0467	pCi/g					01/10/07 17:13
Uncert:				+/-0.975						
TPU:				+/-0.975						
QC1201258998 178538001 MS										
Tritium	8.12 U	-0.369		6.47	pCi/g		80	(75%-125%)		01/10/07 17:46
Uncert:		+/-1.04		+/-2.63						
TPU:		+/-1.04		+/-2.63						
Batch 601320										
QC1201259059 178538001 DUP										
Iron-55	U	-28	U	-48.7	pCi/g	0		(0% - 100%)	KXR1	01/11/07 14:06
Uncert:		+/-62.9		+/-51.2						
TPU:		+/-63.0		+/-51.2						
QC1201259061 LCS										
Iron-55	1540			1440	pCi/g		94	(75%-125%)		01/11/07 14:38
Uncert:				+/-94.3						
TPU:				+/-236						
QC1201259058 MB										
Iron-55			U	-22.3	pCi/g					01/11/07 13:49
Uncert:				+/-43.5						
TPU:				+/-43.5						
QC1201259060 178538001 MS										
Iron-55	1560 U	-28		1580	pCi/g		101	(75%-125%)		01/11/07 14:22
Uncert:		+/-62.9		+/-122						
TPU:		+/-63.0		+/-327						

Notes:
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
- < 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
- ND Analyte concentration is not detected above the detection limit
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **178538**

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

X

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.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 178445
SDG: MSR#06-1460

January 02, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 29, 2006 and November 10, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
178445001	9522-0002-007FS
178445002	9522-0002-024F
178445003	9522-0002-025F
178445004	9522-0002-026F
178445005	9522-0002-027F
178445006	9522-0002-028F
178445007	9522-0002-039F
178445008	9522-0002-040F
178445009	9522-0002-041F
178445010	9522-0002-042F
178445011	9522-0002-043F
178445012	9522-0002-044F
178445013	9522-0002-029F
178445014	9522-0002-034F
178445015	9522-0002-035F
178445016	9522-0002-036F
178445017	9522-0002-038F

Items of Note

Samples were reanalyzed for Sr-90 per Arthur Hammond's request received December 21, 2006.

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL 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

Seventeen soil samples were reanalyzed for Strontium-90.

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 02 January 2007

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

Chain of Custody Form

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

No. 2006-00647

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:

relog 178445 Sr-90

175906 % - FSS ALL

175908 % - ~~FSSGAM~~ FSSGAM

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-001F	10/30/06	0813	TS	G	BP		X						
9522-0002-002F	10/30/06	0757	TS	G	BP	X							
9522-0002-003F	10/30/06	0817	TS	G	BP	X							
9522-0002-004F	10/30/06	0741	TS	G	BP		X						
9522-0002-005F	10/30/06	1013	TS	G	BP	X							
9522-0002-006F	10/30/06	1020	TS	G	BP	X							
9522-0002-007F	10/30/06	0945	TS	G	BP	X							
9522-0002-007FS	10/30/06	0945	TS	G	BP	X							
9522-0002-008F	10/30/06	1031	TS	G	BP	X							
9522-0002-009F	10/30/06	1035	TS	G	BP	X							
9522-0002-010F	10/30/06	1051	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3689 8327
Bill of Lading #

Internal Container Temp.: 17° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00661

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:
relog 178445 Sr-90
1759081.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-024F	10/27/06	1334	TS	G	BP	X							
9522-0002-025F	10/27/06	1353	TS	G	BP	X							
9522-0002-026F	10/27/06	1354	TS	G	BP	X							
9522-0002-027F	10/27/06	1356	TS	G	BP	X							
9522-0002-028F	10/27/06	1354	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3859 8371
Bill of Lading #

Internal Container Temp.: 18° C Deg.
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	Tom Sidle	11-10-06 9:15
3) Relinquished By	Date/Time	4) 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. 2006-00652

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
relog 178445 Sr-90
1759081.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-043F	11/2/06	1032	TS	G	BP	X							
9522-0002-042F	11/2/06	1033	TS	G	BP	X							
9522-0002-041F	11/2/06	1034	TS	G	BP	X							
9522-0002-039F	11/2/06	1035	TS	G	BP	X							
9522-0002-040F	11/2/06	1058	TS	G	BP	X							
9522-0002-038F	11/2/06	1036	TS	G	BP	X							
9522-0002-037F	11/2/06	1037	TS	G	BP	X							
9522-0002-036F	11/2/06	1038	TS	G	BP	X							
9522-0002-030F	11/2/06	1309	TS	G	BP	X							
9522-0002-033F	11/2/06	1309	TS	G	BP	X							
9522-0002-034F	11/2/06	1308	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other 8350
7985 3879 ~~1689~~
Bill of Lading #

Internal Container Temp.: 19° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00653

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
relog 178445 Sr-90
175908 1

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-035F	11/2/06	1311	TS	G	BP	X							
9522-0002-032F	11/2/06	1330	TS	G	BP	X							
9522-0002-029F	11/2/06	1332	TS	G	BP	X							
9522-0002-031F	11/2/06	1333	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other $350
485 3879 ~~1683~~ 28.48
Bill of Lading #

Internal Container Temp.: 19 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature] Date/Time 11/8/06 1500
Date/Time Tom Sides 11-10-06 9:15
3) Relinquished By Date/Time
Date/Time

Chain of Custody Form

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

No. 2006-00654

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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2040 Savage Road. Charleston SC. 29407
843 556 8171. Attn. Cheryl Jones

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
relog 178445 Sr-90
1759081

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-044F	11/03/06	0938	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
Bill of Lading # ~~9985 3889 1644~~ 8327

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	Tom Sitko	11-9-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSA #06-1460

Work Order Number: 175906, 175908

Shipping Container ID: 7985 3889 8327 Chain of Custody # 2006-00647, 2006-00648 2006-00654

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 [ ] NA [✓]
6. Number of samples in shipping container: 18
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: Tim Sods Date: 11-10-06

Telephoned to: _____ On _____ By _____

80 CPM

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175906, 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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*: 80 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 CDJ Date: 11/13/06

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR # 06-1460

Work Order Number: ~~175906~~ 175908 cy 11/14/06

Shipping Container ID: 7985 3889 8350 Chain of Custody # ~~2006-00652~~, ~~2006-00659~~

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 19°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA [✓]
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: Tam Sida Date: 11-10-06

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR # 06-1460, MSR # 06-1461

Work Order Number: 175860, ~~175906~~ 175908. 11/14/06

Shipping Container ID: 7985 3889 8371 Chain of Custody # 2006-00601, 2006-00603

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°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape COC 2006-00601 ✓ hazard labels radioactive COC 2006-00603

____ 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): Times on the COC 2006-00603 are written on the Cont. Sheet.

Sample Custodian/Laboratory: Turner Sides Date: 11-10-06

Telephoned to: ____ On ____ By ____

8:00 PM

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 175908
Date Received: 11-10-06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: TS	

	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*: 60 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 [illegible] Date: 11/14/06

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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	Rad for COC 2006-00603 only			

	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*: 80 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 [signature] Date: 11/14/06

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Client: Conn. Yankee **Date Received:** 11-10-06

Times on samples are as follows:

Sample ID	Date	Time
9527-0006-001	11-7-06	0811
9527-0006-002	11-7-06	0815
9527-0006-003	11-7-06	0813
9527-0006-004	11-7-06	0808
9527-0006-005	11-7-06	0814
9527-0006-006	11-7-06	0830

COC #2006-00603 only

Subject: FW:
From: "Arthur L. Hammond" <Hammond@CYAPCO.com>
Date: Thu, 21 Dec 2006 08:17:05 -0500
To: <cj@gel.com>
CC: "Clyde Newson" <Newson@CYAPCO.com>, "David Wojtkowiak" <wojtkowiak@cyapco.com>, "Jeffrey D. Wagner" <Wagner@CYAPCO.com>, "John McCarthy" <McCarthy@CYAPCO.com>

Cheryl,

The FSS engineer has requested additional analyses on the list of samples (below). We are requesting Sr-90 analyses on all of the samples. Here is a list of the COCs the samples are on: 2006-00647, 2006-00647, 2006-00648, 2006-00652, 2006-00653, 2006-00654, 2006-00661 and 2006-00698. The requested TAT is 14 days. Please give me a call if you have any questions.

Thank you,

Arthur

From: David Wojtkowiak
Sent: Tuesday, December 19, 2006 12:41 PM
To: Arthur L. Hammond
Cc: Clyde Newson
Subject:

Art,

Could you please request GEL to analyse the following samples for Sr-90 please

Thanks,

Wojo

9522-0002-002F	9522-0002-0039-I
9522-0002-003F	9522-0002-0040-I
9522-0002-005F	9522-0002-0041-I
9522-0002-007F	9522-0002-0042-I
9522-0002-008F	9522-0002-0043-I
9522-0002-0010F	9522-0002-0044-I
9522-0002-0011F	9522-0002-0045-I
9522-0002-0012F	9522-0002-0046-I
9522-0002-0013F	9522-0002-0047-I
9522-0002-0014F	9522-0002-0048-I
9522-0002-0016F	9522-0002-0049-I
9522-0002-007FS	9522-0002-0050-I
9522-0002-0024-I	9522-0002-0051-I
9522-0002-0025-I	9522-0002-0052-I
9522-0002-0026-I	9522-0002-0053-I
9522-0002-0027-I	9522-0002-0054-I
9522-0002-0028-I	9522-0002-0055-I

9522-0002-0029-I	9522-0002-0056-I
9522-0002-0034-I	9522-0002-0057-I
9522-0002-0035-I	9522-0002-0058-I
9522-0002-0036-I	9522-0002-0059-I
9522-0002-0038-I	9522-0002-0060-I

Subject: Re: FW: Sr-90 Request
From: Cheryl Jones <cj@gel.com>
Date: Fri, 29 Dec 2006 15:20:47 -0500
To: "Arthur L. Hammond" <Hammond@CYAPCO.com>
CC: Clyde Newson <Newson@CYAPCO.com>, David Wojtkowiak <wojtkowiak@cyapco.com>, "Jeffrey D. Wagner" <Wagner@CYAPCO.com>, John McCarthy <McCarthy@CYAPCO.com>, Amanda Rasco <ama01354@gel.com>, Cheryl Duffy <Cheryl.Duffy@gel.com>

Arthur,
We have reviewed the list of IDs provided and most have had Sr-90 analyzed. I've attached a spreadsheet listing the corresponding GEL IDs of the Sr-90 results. Those samples highlighted on the spreadsheet had not had Sr-90 analyzed previously and are now scheduled. Also, please note that we were unable to locate IDs 9522-0002-024_-I_ through 9522-0002-044_-I_ in our system, but do have -F IDs for all those locations. The -F IDs have been scheduled for Sr-90. We will have these results for you by 1/9/07.
Please let me know if you have any questions.

Thanks,
Cheryl

Arthur L. Hammond wrote:

> Cheryl,
>
> The FSS engineer has requested additional analyses on the list of samples (below). We are requesting Sr-90 analyses on all of the samples. Here is a list of the COCs the samples are on: 2006-00647, 2006-00647, 2006-00648, 2006-00652, 2006-00653, 2006-00654, 2006-00661 and 2006-00698. The requested TAT is 14 days. Please give me a call if you have any questions.
>
> Thank you,
>
> Arthur
>
> ---
>
> *From:* David Wojtkowiak
> *Sent:* Tuesday, December 19, 2006 12:41 PM
> *To:* Arthur L. Hammond
> *Cc:* Clyde Newson
> *Subject:*
>
> Art,
>
> Could you please request GEL to analyse the following samples for Sr-90 please
>
> Thanks,

Wojo

9522-0002-002F

9522-0002-0039-I

9522-0002-003F

9522-0002-0040-I

9522-0002-005F

9522-0002-0041-I

9522-0002-007F

9522-0002-0042-I

9522-0002-008F

9522-0002-0043-I

9522-0002-0010F

9522-0002-0044-I

9522-0002-0011F

9522-0002-0045-I

9522-0002-0012F

9522-0002-0046-I

9522-0002-0013F

9522-0002-0047-I

9522-0002-0014F

9522-0002-0048-I

9522-0002-0016F

9522-0002-0049-I

9522-0002-007FS

9522-0002-0050-I

9522-0002-0024-I

9522-0002-0051-I

9522-0002-0025-I

9522-0002-0052-I

9522-0002-0026-I

9522-0002-0053-I

9522-0002-0027-I

9522-0002-0054-I

9522-0002-0028-I

9522-0002-0055-I

9522-0002-0029-I

9522-0002-0056-I

9522-0002-0034-I

9522-0002-0057-I

9522-0002-0035-I

9522-0002-0058-I

9522-0002-0036-I

9522-0002-0059-I

9522-0002-0038-I

9522-0002-0060-I

--

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

CY Sr90 Relogs 122606.xls **Content-Type:** application/msexcel
Content-Encoding: base64

CY ID	GEL ID for Sr90
9522-0002-002F	177540016
9522-0002-003F	177540017
9522-0002-005F	177540018
9522-0002-007F	177540019
9522-0002-008F	177540020
9522-0002-010F	177540021
9522-0002-011F	177540022
9522-0002-012F	177540023
9522-0002-013F	177540024
9522-0002-014F	177540025
9522-0002-016F	177540026
9522-0002-007FS	178445001
9522-0002-024F	178445002
9522-0002-025F	178445003
9522-0002-026F	178445004
9522-0002-027F	178445005
9522-0002-028F	178445006
9522-0002-029F	178445013
9522-0002-034F	178445014
9522-0002-035F	178445015
9522-0002-036F	178445016
9522-0002-038F	178445017

CY ID	GEL ID for Sr90
9522-0002-039F	178445007
9522-0002-040F	178445008
9522-0002-041F	178445009
9522-0002-042F	178445010
9522-0002-043F	178445011
9522-0002-044F	178445012
9522-0002-045-I	177260003
9522-0002-046-I	177260004
9522-0002-047-I	177260005
9522-0002-048-I	177260006
9522-0002-049-I	177260007
9522-0002-050-I	177260008
9522-0002-051-I	177260001
9522-0002-052-I	177260009
9522-0002-053-I	177260010
9522-0002-054-I	177260011
9522-0002-055-I	177260012
9522-0002-056-I	177260002
9522-0002-057-I	177260013
9522-0002-058-I	177260014
9522-0002-059-I	177260015
9522-0002-060-I	177260016

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 178445

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:	599324
Prep Batch Number:	599310
Dry Soil Prep GL-RAD-A-021 Batch Number:	599308

Sample ID	Client ID
178445001	9522-0002-007FS
178445004	9522-0002-026F
178445005	9522-0002-027F
178445006	9522-0002-028F
178445010	9522-0002-042F
178445011	9522-0002-043F
178445012	9522-0002-044F
178445013	9522-0002-029F
178445015	9522-0002-035F
178445017	9522-0002-038F
1201254606	Method Blank (MB)
1201254607	178445001(9522-0002-007FS) Sample Duplicate (DUP)
1201254608	178445001(9522-0002-007FS) Matrix Spike (MS)
1201254609	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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: 178445001 (9522-0002-007FS).

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 relative percent difference/relative error ratio.

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:	**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:	600848
Prep Batch Number:	599310
Dry Soil Prep GL-RAD-A-021 Batch Number:	599308

Sample ID	Client ID
178445002	9522-0002-024F
178445003	9522-0002-025F
178445007	9522-0002-039F
178445008	9522-0002-040F
178445009	9522-0002-041F
178445014	9522-0002-034F
178445016	9522-0002-036F
1201257982	Method Blank (MB)
1201257983	178445009(9522-0002-041F) Sample Duplicate (DUP)
1201257984	178445009(9522-0002-041F) Matrix Spike (MS)
1201257985	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL 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 volume in this batch.

Designated QC

The following sample was used for QC: 178445009 (9522-0002-041F).

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 178445008 (9522-0002-040F) and 178445009 (9522-0002-041F) were recounted to verify sample results. Second counts being reported. Sample 178445009 (9522-0002-041F) was reprepped due to low/high carrier/tracer yield. Samples 178445002 (9522-0002-024F), 178445003 (9522-0002-025F), 178445007 (9522-0002-039F), 178445008 (9522-0002-040F), 178445009 (9522-0002-041F), 178445014 (9522-0002-034F) and 178445016 (9522-0002-036F) were reprepped due to low/high recovery. Samples 178445002 (9522-0002-024F), 178445003 (9522-0002-025F), 178445007 (9522-0002-039F), 178445008 (9522-0002-040F), 178445014 (9522-0002-034F) and 178445016 (9522-0002-036F) were reprepped to verify sample results.

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 399086 was generated due to Container scanning event for custody missed. 1. Samples 178445002, 178445003, 178445007, 178445008, 178445009, and 178445014 were not scanned into the batch prior to analysis. Custody of the samples was maintained at all times. 1. Reporting results. The error has been corrected, and the analyst has been instructed on proper scanning procedure.

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: Pamela Williams 7/11/17

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-JAN-07	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
600848	See Below		

Potentially affected work order(s)(SDG): 178445(MSR#06-1460)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 178445002, 178445003, 178445007, 178445008, 178445009, and 178445014 were not scanned into the batch prior to analysis. Custody of the samples was maintained at all times.	1. Reporting results. The error has been corrected, and the analyst has been instructed on proper scanning procedure.

Originator's Name:

John Parker 11-JAN-07

Data Validator/Group Leader:

Heather Anderson 11-JAN-07

Quality Review:

Director:

SAMPLE DATA SUMMARY

GEL 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#06-1460 GEL Work Order: 178445

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.

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 GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GEL 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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–007FS	Project:	YANK01204
Sample ID:	178445001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	20.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.00798	+/–0.0218	0.0165	+/–0.0218	0.0415	pCi/g		KSD1	01/04/07	1754	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–007FS Project: YANK01204
Sample ID: 178445001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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 detection limit
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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–024F	Project:	YANK01204
Sample ID:	178445002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	5.74%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.166	+/–0.0459	0.0206	+/–0.0461	0.0483	pCi/g		KSD1	01/09/07	1706	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–024F Project: YANK01204
Sample ID: 178445002 Client ID: YANK001
Vol. Recv.:

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

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 detection limit
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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–025F	Project:	YANK01204
Sample ID:	178445003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	7.49%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.183	+/–0.045	0.0211	+/–0.0452	0.0481	pCi/g		KSD1	01/09/07	1706	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–025F Project: YANK01204
Sample ID: 178445003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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 detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–026F	Project:	YANK01204
Sample ID:	178445004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0135	+/–0.0217	0.0158	+/–0.0217	0.0384	pCi/g		KSD1	01/04/07	1754	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	84	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	84	(25%–125%)

Notes:

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
- < 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

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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–026F Project: YANK01204
Sample ID: 178445004 Client ID: YANK001
Vol. Recv.:

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

ND Analyte concentration is not detected above the detection limit
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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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–027F	Project:	YANK01204
Sample ID:	178445005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0198	+/–0.0226	0.0156	+/–0.0226	0.0378	pCi/g		KSD1	01/04/07	1754	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	90	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	90	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-027F Project: YANK01204
Sample ID: 178445005 Client ID: YANK001
Vol. Recv.:

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

ND Analyte concentration is not detected above the detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–028F	Project:	YANK01204
Sample ID:	178445006	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	27–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0253	+/–0.0239	0.0158	+/–0.0239	0.0384	pCi/g		KSD1	01/04/07	1755	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	87	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	87	(25%–125%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–028F Project: YANK01204
Sample ID: 178445006 Client ID: YANK001
Vol. Recv.:

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

ND Analyte concentration is not detected above the detection limit
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

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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–039F	Project:	YANK01204
Sample ID:	178445007	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	43.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90		0.349	+/–0.0562	0.0214	+/–0.0569	0.0484	pCi/g		KSD1	01/09/07	1706	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-039F Project: YANK01204
Sample ID: 178445007 Client ID: YANK001
Vol. Recv.:

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

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 detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–040F	Project:	YANK01204
Sample ID:	178445008	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0232	+/–0.0232	0.0155	+/–0.0233	0.0377	pCi/g		KSD1	01/10/07	1818	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–040F Project: YANK01204
Sample ID: 178445008 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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 detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–041F	Project:	YANK01204
Sample ID:	178445009	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	28.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0472	+/–0.033	0.0208	+/–0.033	0.0495	pCi/g		KSD1	01/10/07	1818	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	68	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	68	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–041F Project: YANK01204
Sample ID: 178445009 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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 detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–042F	Project:	YANK01204
Sample ID:	178445010	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	26.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	–0.0067	+/–0.0207	0.0184	+/–0.0207	0.043	pCi/g		KSD1	01/04/07	1755	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–042F Project: YANK01204
Sample ID: 178445010 Client ID: YANK001
Vol. Recv.:

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

ND Analyte concentration is not detected above the detection limit
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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Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: January 11, 2007

Client Sample ID:	9522–0002–043F	Project:	YANK01204
Sample ID:	178445011	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	21.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.0269	+/–0.0224	0.0136	+/–0.0224	0.0341	pCi/g		KSD1	01/04/07	1836	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	98	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	98	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–043F Project: YANK01204
Sample ID: 178445011 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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 detection limit
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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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–044F	Project:	YANK01204
Sample ID:	178445012	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	24.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid – 0.025 pCi/g													
Strontium–90	U	0.044	+/–0.0309	0.0206	+/–0.0309	0.0475	pCi/g		KSD1	01/04/07	1756	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid – 0.025 pCi/g	71	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid – 0.025 pCi/g	71	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–044F Project: YANK01204
Sample ID: 178445012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

ND Analyte concentration is not detected above the detection limit
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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–029F	Project:	YANK01204
Sample ID:	178445013	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	29–DEC–06		
Collector:	Client		
Moisture:	23.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.00681	+/–0.0237	0.0205	+/–0.0237	0.045	pCi/g		KSD1	01/04/07	1756	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-029F Project: YANK01204
Sample ID: 178445013 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

ND Analyte concentration is not detected above the detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–034F	Project:	YANK01204
Sample ID:	178445014	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	29–DEC–06		
Collector:	Client		
Moisture:	38%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.254	+/–0.0533	0.0206	+/–0.0537	0.0482	pCi/g		KSD1	01/09/07	1707	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)

Notes:

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
- < 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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–034F Project: YANK01204
Sample ID: 178445014 Client ID: YANK001
Vol. Recv.:

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

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 detection limit
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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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–035F	Project:	YANK01204
Sample ID:	178445015	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	29–DEC–06		
Collector:	Client		
Moisture:	48.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.026	+/–0.0276	0.0194	+/–0.0276	0.0457	pCi/g		KSD1	01/04/07	1756	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)

Notes:

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
- < 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-035F Project: YANK01204
Sample ID: 178445015 Client ID: YANK001
Vol. Recv.:

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

ND Analyte concentration is not detected above the detection limit
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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–036F	Project:	YANK01204
Sample ID:	178445016	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	29–DEC–06		
Collector:	Client		
Moisture:	49.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.159	+/–0.0428	0.0193	+/–0.043	0.045	pCi/g		KSD1	01/09/07	1707	600848	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	84	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	84	(25%–125%)

Notes:

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
- < 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

GEL 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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–036F Project: YANK01204
Sample ID: 178445016 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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 detection limit
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.

GEL 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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–038F	Project:	YANK01204
Sample ID:	178445017	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	02–NOV–06		
Receive Date:	29–DEC–06		
Collector:	Client		
Moisture:	24.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0209	+/–0.024	0.0166	+/–0.024	0.040	pCi/g		KSD1	01/04/07	1757	599324	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/30/06	0955	599308

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	84	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	84	(25%–125%)

Notes:

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
- < 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

GEL 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: January 11, 2007
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-038F Project: YANK01204
Sample ID: 178445017 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

ND Analyte concentration is not detected above the detection limit
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.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: January 11, 2007

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 178445

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 599324										
QC1201254607 178445001 DUP										
Strontium-90	U	0.00798	U	-0.00386	pCi/g	0		(0% - 100%)	KSD1	01/04/07 20:18
	Uncert:	+/-0.0218		+/-0.0196						
	TPU:	+/-0.0218		+/-0.0196						
QC1201254609 LCS										
Strontium-90	1.28			1.30	pCi/g		101	(75%-125%)		01/04/07 18:37
	Uncert:			+/-0.118						
	TPU:			+/-0.121						
QC1201254606 MB										
Strontium-90			U	-0.00724	pCi/g					01/04/07 18:36
	Uncert:			+/-0.0178						
	TPU:			+/-0.0178						
QC1201254608 178445001 MS										
Strontium-90	1.29 U	0.00798		1.20	pCi/g		93	(75%-125%)		01/04/07 18:37
	Uncert:	+/-0.0218		+/-0.120						
	TPU:	+/-0.0218		+/-0.125						
Batch 600848										
QC1201257983 178445009 DUP										
Strontium-90	U	0.0472	U	0.0315	pCi/g	0		(0% - 100%)	KSD1	01/09/07 17:07
	Uncert:	+/-0.033		+/-0.0297						
	TPU:	+/-0.033		+/-0.0297						
QC1201257985 LCS										
Strontium-90	1.66			1.75	pCi/g		105	(75%-125%)		01/09/07 17:08
	Uncert:			+/-0.174						
	TPU:			+/-0.181						
QC1201257982 MB										
Strontium-90			U	-0.00637	pCi/g					01/09/07 17:07
	Uncert:			+/-0.0187						
	TPU:			+/-0.0187						
QC1201257984 178445009 MS										
Strontium-90	5.57 U	0.0472		5.57	pCi/g		100	(75%-125%)		01/09/07 17:07
	Uncert:	+/-0.033		+/-0.576						
	TPU:	+/-0.033		+/-0.593						

Notes:
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
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 178445

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

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
ND	Analyte concentration is not detected above the detection limit
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.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 177540
SDG: MSR#06-1549

December 14, 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 November 10, 2006 and November 30, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
177540001	9522-0001-001F
177540002	9522-0001-002F
177540003	9522-0001-003F
177540004	9522-0001-004F
177540005	9522-0001-005F
177540006	9522-0001-006F
177540007	9522-0001-009F
177540008	9522-0001-010F
177540009	9522-0001-011F
177540010	9522-0001-012F
177540011	9522-0001-013F
177540012	9522-0001-015F
177540013	9522-0001-016F
177540014	9522-0001-021-I
177540015	9522-0001-024-I
177540016	9522-0002-002F
177540017	9522-0002-003F
177540018	9522-0002-005F
177540019	9522-0002-007F
177540020	9522-0002-008F
177540021	9522-0002-010F
177540022	9522-0002-011F
177540023	9522-0002-012F
177540024	9522-0002-013F
177540025	9522-0002-014F

177540026	9522-0002-016F
177540027	9522-0003-001F
177540028	9522-0003-002F
177540029	9522-0003-003F
177540030	9522-0003-004F
177540031	9522-0003-005F
177540032	9522-0003-007F
177540033	9522-0003-008F
177540034	9522-0003-009F
177540035	9522-0003-010F
177540036	9522-0003-011F
177540037	9522-0003-012F
177540038	9522-0003-013F
177540039	9522-0003-014F
177540040	9522-0003-015F
177540041	9522-0004-001F
177540042	9522-0004-002F
177540043	9522-0004-003F
177540045	9522-0004-005F
177540046	9522-0004-006F
177540047	9522-0004-008F
177540048	9522-0004-009F
177540049	9522-0004-010F
177540050	9522-0004-011F
177540051	9522-0004-012F
177540052	9522-0004-013F
177540053	9522-0004-014F
177540054	9522-0004-015F
177540055	9522-0004-016F

Items of Note

The above samples were relogged at the request of Arthur Hammond on 12/11/06. See attached emails.

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

Fifty-four soil samples were analyzed for Strontium-90.

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 14 December 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

Chain of Custody Form

No. 2006-00666

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
Relog for Sr-90 per 12/11/06 request - 177540

1768961

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0001-012F	11/09/06	0808	TS	G	BP	X							
9522-0001-015F	11/09/06	0815	TS	G	BP	X							
9522-0001-002F	11/09/06	0954	TS	G	BP	X							
9522-0001-001F	11/09/06	0955	TS	G	BP	X							
9522-0001-003F	11/09/06	0958	TS	G	BP	X							
9522-0001-010F	11/09/06	1052	TS	G	BP	X							
9522-0001-014F	11/09/06	1054	TS	G	BP		X						
9522-0001-009F	11/09/06	1057	TS	G	BP	X							
9522-0001-009FS	11/09/06	1057	TS	G	BP	X							
9522-0001-008F	11/09/06	1311	TS	G	BP		X						
9522-0001-011F	11/09/06	1312	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1505 11/21/06 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		Ofava	11/30/06 10:10
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00667

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 176896 1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
✓ 9522-0001-013F	11/09/06	1337	TS	G	BP	X							
✓ 9522-0001-005F	11/09/06	1358	TS	G	BP	X							
✓ 9522-0001-006F	11/09/06	1400	TS	G	BP	X							
✓ 9522-0001-004F	11/09/06	1405	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1505 (11/21/06) SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		[signature]	11/30/06 1010
3) Relinquished By	Date/Time	4) 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. 2006-00671

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 1768961

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0001-016F	11/15/06	0935	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-1281 1505 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		C Gauer	11/30/06 10/08
3) Relinquished By	Date/Time	4) 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. 2006-00677

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
1768961.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0001-017-I	11/16/06	0716	TS	G	BP	X							
9522-0001-018-I	11/16/06	0717	TS	G	BP	X							
9522-0001-019-I	11/16/06	0718	TS	G	BP	X							
9522-0001-020-I	11/16/06	0719	TS	G	BP	X							
9522-0001-021-I	11/16/06	1335	TS	G	BP	X							
9522-0001-022-I	11/16/06	1340	TS	G	BP	X							
9522-0001-023-I	11/16/06	1345	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1505 11/21/06 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		[signature] 11/30/06	10:10
3) Relinquished By	Date/Time	4) 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. 2006-00684

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments: 176896 %

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0001-024-I	11/21/06	1254	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1505 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		[signature]	11/30/06 10:10
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-30-06 10:10

SDG#: MSR#06-1505, MSR#06-1506

Work Order Number: 176896, 176890

Shipping Container ID: See Continuation Sheet Chain of Custody # See Continuation Shee

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 See Continuation sheet
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: _____
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? Yes [X] No [ ]
11. Description of anomalies (include sample numbers): not signed

Sample Custodian/Laboratory: [signature] Date: 11-30-06

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Yankee Atomic	SDG/ARCOC/Work Order: 176890, 176896
Date Received: 11/30/06	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) See Below
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?			✓	not signed
14	Air Bill ,Tracking #'s, & Additional Comments	7928 9092 2742 -20° 7928 9092 2710 -17° 7980 5266 8796 -18			7980 5266 8785 -16° 7928 9092 2731 -17° 7928 -9092 2753 -17°

	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*: 150 CPM
B	PCB Regulated?	✓			
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:
D	Regulated as a Foreign Soil?				

PM (or PMA) review of Hazard classification: ✓ Initials [illegible] Date: 11/30/06

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Fed Ex 7928 9092 2742 -20°
2710 20°
2731 17°
2753 17°
7980 5266 8796 -18°
8785 -16°

Chain of Custody #'s --

2006- 00687
- 00667
- 00671
- 00677
- 00684
- 00689
- 00691
- 00686
- 00685
- 00666
- 00688

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

Chain of Custody Form

No. 2006-00647

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
175906 % - FSS ALL
175908 % - ~~FSSGAM~~ FSSGAM

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-001F	10/30/06	0813	TS	G	BP		X						
9522-0002-002F	10/30/06	0757	TS	G	BP	X							
9522-0002-003F	10/30/06	0817	TS	G	BP	X							
9522-0002-004F	10/30/06	0741	TS	G	BP		X						
9522-0002-005F	10/30/06	1013	TS	G	BP	X							
9522-0002-006F	10/30/06	1020	TS	G	BP	X							
9522-0002-007F	10/30/06	0945	TS	G	BP	X							
9522-0002-007FS	10/30/06	0945	TS	G	BP	X							
9522-0002-008F	10/30/06	1031	TS	G	BP	X							
9522-0002-009F	10/30/06	1035	TS	G	BP	X							
9522-0002-010F	10/30/06	1051	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1460~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
Bill of Lading # 7985 3689 8377

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
John V. Lach	11/8/06 1500	Tom Sides	11-10-06 9:15
3) Relinquished By	Date/Time	4) 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. 2006-00648

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
1759081

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0002-013F	10/30/06	1100	TS	G	BP	X							
9522-0002-011F	10/30/06	1322	TS	G	BP	X							
9522-0002-014F	10/30/06	1325	TS	G	BP	X							
9522-0002-016F	10/30/06	1328	TS	G	BP	X							
9522-0002-012F	10/30/06	1340	TS	G	BP	X							
9522-0002-015F	10/31/06	1400	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ ~~1464~~ 1460 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3589 ~~1694~~
Bill of Lading #

Internal Container Temp.: 17° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/8/06 1500	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSA #06-1460

Work Order Number: 175906, 175908

Shipping Container ID: 7985 3889 8327 Chain of Custody # 2006-00647, 2006-00648, 2006-00654

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 [ ] NA [✓]
6. Number of samples in shipping container: 18
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: Tim Sids Date: 11-10-06

Telephoned to: _____ On _____ By _____

80 CPM

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175906, 175908
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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*: 80 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 CDJ Date: 11/13/06

Chain of Custody Form

No. 2006-00655

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:

Cdy 11/14/06
175874- ~~FSSALL~~ FSSGAM
175901- ~~FSSGAM~~ FSS ALL

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0003-001F	11/3/06	1255	TS	G	BP	X							
9522-0003-002F	11/3/06	1256	TS	G	BP	X							
9522-0003-003F	11/3/06	1300	TS	G	BP	X							
9522-0003-005F	11/3/06	1302	TS	G	BP	X							
9522-0003-004F	11/3/06	1312	TS	G	BP	X							
9522-0003-006F	11/3/06	1314	TS	G	BP		X						
9522-0003-007F	11/3/06	1316	TS	G	BP	X							
9522-0003-008F	11/3/06	1318	TS	G	BP	X							
9522-0003-008FS	11/3/06	1318	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1459 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3891 5025
Bill of Lading #

Internal Container Temp.: 18° C Deg.
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
John J. [illegible]	11/9/06 0800	Tan [illegible]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00656

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
175874 - FSSGAM
175901 - FSSALL

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0003-009F	11/6/06	0734	TS	G	BP	X							
9522-0003-011F	11/6/06	0737	TS	G	BP	X							
9522-0003-010F	11/6/06	0739	TS	G	BP	X							
9522-0003-012F	11/6/06	0741	TS	G	BP	X							
9522-0003-014F	11/6/06	0800	TS	G	BP	X							
9522-0003-015F	11/6/06	0803	TS	G	BP	X							
9522-0003-013F	11/6/06	0805	TS	G	BP	X							
9522-0003-016F	11/6/06	1028	TS	G	BP	~~X~~	X						

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1459 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7985 3891 5025
Bill of Lading #

Internal Container Temp.: 18° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	11/9/06 0800	[signature]	11-10-06 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15

SDG#: MSR #06-1469

Work Order Number: 175874, 175901

Shipping Container ID: 7985 3891 5085 Chain of Custody # 2006-00655, 2006-00656

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°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA ✓
6. Number of samples in shipping container: 17
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: Tan Sub Date: 11-10-06

Telephoned to: ____ On ____ By ____

To CPan

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	**SDG/ARCOC/Work Order:** 175874, 175901
Date Received: 11-10-06	**PM(A) Review (ensure non-conforming items are resolved prior to signing):**
Received By: TS	

	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	COC# - 2006-00655, 00656			

	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*: 70 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 CAJ Date: 11/14/06

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

Chain of Custody Form

No. 2006-00685

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
176890%

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0004-001F	11/22/06	0726	TS	G	BP	X							
9522-0004-001FS	11/22/06	0726	TS	G	BP	X							
9522-0004-002F	11/22/06	0728	TS	G	BP	X							
9522-0004-003F	11/22/06	0730	TS	G	BP	X							
9522-0004-004F	11/22/06	0732	TS	G	BP		X						
9522-0004-005F	11/22/06	0740	TS	G	BP	X							
9522-0004-006F	11/22/06	0742	TS	G	BP	X							
9522-0004-007F	11/22/06	0744	TS	G	BP		X						
9522-0004-008F	11/22/06	0750	TS	G	BP	X							
9522-0004-009F	11/22/06	0940	TS	G	BP	X							
9522-0004-010F	11/22/06	0942	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 11-29-06 1506 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		[signature]	11/30/06 10:10
3) Relinquished By	Date/Time	4) 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. 2006-00686

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

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

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
176890%

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9522-0004-011F	11/22/06	0944	TS	G	BP	X							
9522-0004-012F	11/22/06	0946	TS	G	BP	X							
9522-0004-013F	11/22/06	1012	TS	G	BP	X							
9522-0004-014F	11/22/06	1014	TS	G	BP	X							
9522-0004-015F	11/22/06	1016	TS	G	BP	X							
9522-0004-016F	11/22/06	1021	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1506 11/29/06 SSWP# NA ☒ 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	Date/Time	2) Received By	Date/Time
		[signature]	11/30/06 10/10
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 11·30·06 10:10

SDG#: MSR#06-1505, MSR#06-1506

Work Order Number: 176896, 176890

Shipping Container ID: See Continuation Sheet Chain of Custody # See Continuation sheet

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 See Continuation sheet
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: _____
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? Yes [X] No [ ]
11. Description of anomalies (include sample numbers): not signed

Sample Custodian/Laboratory: C Sense Date: 11·30·06

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Yankee Atomic	SDG/ARCOC/Work Order: 176890, 176896
Date Received: 11/30/06	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) See Below
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?			✓	not signed
14	Air Bill ,Tracking #'s, & Additional Comments	7928 9092 2742-20° 7928 9092 2710 -17.0 7980 5266 8796-18			7980 5266 8785 -16° 7988 9092 2731-17° 7928 -9092 2753 -17°

	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*: 150 CPM
B	PCB Regulated?	✓			
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:
D	Regulated as a Foreign Soil?				

PM (or PMA) review of Hazard classification: ✓ Initials [illegible] Date: 11/30/06

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Fed Ex 7928 9092 2742 -20°
2710 20°
2731 17°
2753 17°
7980 5266 8796 -18°
8785 -16°

Chain of Custody #'s -

2006- 00687
- 06667
- 00671
- 00677
- 00684
- 00689
- 00691
- 00686
- 00685
- 00666
- 00688

Subject: Re: Additional analyses (Sr-90)
From: Cheryl Jones <cj@gel.com>
Date: Tue, 12 Dec 2006 07:55:22 -0500
To: "Arthur L. Hammond" <Hammond@CYAPCO.com>
CC: David Wojtkowiak <wojtkowiak@cyapco.com>, Jack McCarthy <mccarthy@cyapco.com>

Arthur,
The sample listed for recount below (9522-0004-004F) is already being processed as a reanalysis for Sr-90 based on Jack's email last Friday (new workorder 177405). It will be completed this Friday and I will reference the new MSR# below. The remaining samples have been relogged per your request yesterday and will be processed on a 7d TAT. Please let me know if you have any questions.

Thanks,
Cheryl

Arthur L. Hammond wrote:

> Cheryl,
>
> I put a 7 day TAT on the MSR however, if you have the results sooner we will take them.
>
> Thank you,
>
> Arthur
>
> -----Original Message-----
> From: Cheryl Jones [mailto:cj@gel.com] Sent: Monday, December 11, 2006 4:33 PM
> To: Arthur L. Hammond
> Cc: Clyde Newson; John McCarthy; Jeffrey D. Wagner; David Wojtkowiak; Amanda Rasco
> Subject: Re: Additional analyses (Sr-90)
>
> Arthur,
> Thank you for the list of IDs, we will have the samples pulled from their storage location and rescheduled by tomorrow morning. When do you
>
> need this data returned to you (TAT)?
>
> Cheryl
>
> Arthur L. Hammond wrote:
>
>> Cheryl,
>>
>> We are requesting additional analyses on the attached list of samples.
>>
>> One sample, 9522-0004-004F, is a recount. The GEL sample ID for that sample is 176890005. We are requesting Sr-90 analyses counts on these samples. The MSR NO 06-1549.
>>
>> Thank you,

Arthur

--

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

MEMORANDUM

To: Art Hammond

From: Dave Wojtkowiak

In support of the FSS of Survey Area 9522, I would like to request additional analysis for Sr-90 in the following soil samples:

9522-0001-001F	9522-0003-003F	
9522-0001-002F	9522-0003-004F	
9522-0001-003F	9522-0003-005F	
9522-0001-004F	9522-0003-007F	
9522-0001-005F	9522-0003-008F	
9522-0001-006F	9522-0003-009F	
9522-0001-009F	9522-0003-010F	
9522-0001-010F	9522-0003-011F	
9522-0001-011F	9522-0003-012F	
9522-0001-012F	9522-0003-013F	
9522-0001-013F	9522-0003-014F	
9522-0001-015F	9522-0003-015F	
9522-0001-016F	9522-0004-001F	
9522-0001-021-I	9522-0004-002F	
9522-0001-024-I	9522-0004-003F	
9522-0002-002F	9522-0004-004F	(recount)
9522-0002-003F	9522-0004-005F	
9522-0002-005F	9522-0004-006F	
9522-0002-007F	9522-0004-008F	
9522-0002-008F	9522-0004-009F	
9522-0002-010F	9522-0004-010F	
9522-0002-011F	9522-0004-011F	
9522-0002-012F	9522-0004-012F	
9522-0002-013F	9522-0004-013F	
9522-0002-014F	9522-0004-014F	
9522-0002-016F	9522-0004-015F	
9522-0003-001F	9522-0004-016F	
9522-0003-002F		

Subject: RE: Additional analyses (Sr-90)
From: "Arthur L. Hammond" <Hammond@CYAPCO.com>
Date: Wed, 13 Dec 2006 16:00:57 -0500
To: "Cheryl Jones" <cj@gel.com>
CC: "Clyde Newson" <Newson@CYAPCO.com>, "David Wojtkowiak" <wojtkowiak@cyapco.com>, "John McCarthy" <McCarthy@CYAPCO.com>, "Jeffrey D. Wagner" <Wagner@CYAPCO.com>

Cheryl,

As per our conversation sample, 9522-0004-004F, will not need a third recount. It is my understanding that Jack McCarthy had previously requested a recount on this sample on 12/8/06.

Thank you,

Arthur

-----Original Message-----
From: Cheryl Jones [mailto:cj@gel.com]
Sent: Monday, December 11, 2006 4:33 PM
To: Arthur L. Hammond
Cc: Clyde Newson; John McCarthy; Jeffrey D. Wagner; David Wojtkowiak; Amanda Rasco
Subject: Re: Additional analyses (Sr-90)

Arthur,
Thank you for the list of IDs, we will have the samples pulled from their storage location and rescheduled by tomorrow morning. When do you

need this data returned to you (TAT)?

Cheryl

Arthur L. Hammond wrote:

> Cheryl,
>
> We are requesting additional analyses on the attached list of samples.
>
> One sample, 9522-0004-004F, is a recount. The GEL sample ID for that sample is 176890005. We are requesting Sr-90 analyses counts on these samples. The MSR NO 06-1549.
>
> Thank you,
>
> Arthur

--

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

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 177540

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:	595174
Prep Batch Number:	595088
Dry Soil Prep GL-RAD-A-021 Batch Number:	595084

Sample ID	Client ID
177540021	9522-0002-010F
177540022	9522-0002-011F
177540023	9522-0002-012F
177540024	9522-0002-013F
177540025	9522-0002-014F
177540026	9522-0002-016F
177540027	9522-0003-001F
177540028	9522-0003-002F
177540029	9522-0003-003F
177540030	9522-0003-004F
177540031	9522-0003-005F
177540032	9522-0003-007F
177540033	9522-0003-008F
177540034	9522-0003-009F
177540035	9522-0003-010F
177540036	9522-0003-011F
177540037	9522-0003-012F
177540038	9522-0003-013F
177540039	9522-0003-014F
177540040	9522-0003-015F
1201245012	Method Blank (MB)
1201245013	177540021(9522-0002-010F) Sample Duplicate (DUP)
1201245014	177540021(9522-0002-010F) Matrix Spike (MS)
1201245015	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 volume in this batch.

Designated QC
The following sample was used for QC: 177540021 (9522-0002-010F).

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. 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:	**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:	595177
Prep Batch Number:	595089
Dry Soil Prep GL-RAD-A-021 Batch Number:	595086

Sample ID	Client ID
177540041	9522-0004-001F
177540042	9522-0004-002F
177540043	9522-0004-003F
177540045	9522-0004-005F
177540046	9522-0004-006F
177540047	9522-0004-008F
177540048	9522-0004-009F
177540049	9522-0004-010F
177540050	9522-0004-011F
177540051	9522-0004-012F
177540052	9522-0004-013F
177540053	9522-0004-014F
177540054	9522-0004-015F
177540055	9522-0004-016F
1201245020	Method Blank (MB)
1201245021	177540041(9522-0004-001F) Sample Duplicate (DUP)
1201245022	177540041(9522-0004-001F) Matrix Spike (MS)
1201245023	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: 177540041 (9522-0004-001F).

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 1201245020 (MB), 177540041 (9522-0004-001F), 177540042 (9522-0004-002F), 177540043 (9522-0004-003F), 177540047 (9522-0004-008F), 177540050 (9522-0004-011F), 177540052 (9522-0004-013F) and 177540054 (9522-0004-015F) were recounted due to a suspected blank false positive. Samples 1201245020 (MB) and 1201245021 (9522-0004-001F) were recounted due to high MDAs.

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:	**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:	597316
Prep Batch Number:	595087
Dry Soil Prep GL-RAD-A-021 Batch Number:	595082

Sample ID	Client ID
177540001	9522-0001-001F
177540002	9522-0001-002F
177540003	9522-0001-003F
177540004	9522-0001-004F
177540005	9522-0001-005F
177540006	9522-0001-006F
177540007	9522-0001-009F
177540008	9522-0001-010F
177540009	9522-0001-011F
177540010	9522-0001-012F
177540011	9522-0001-013F
177540012	9522-0001-015F
177540013	9522-0001-016F
177540014	9522-0001-021-I
177540015	9522-0001-024-I
177540016	9522-0002-002F
177540017	9522-0002-003F
177540018	9522-0002-005F
177540019	9522-0002-007F
177540020	9522-0002-008F
1201250079	Method Blank (MB)
1201250080	177540001(9522-0001-001F) Sample Duplicate (DUP)
1201250081	177540001(9522-0001-001F) Matrix Spike (MS)
1201250082	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 volume in this batch.

Designated QC
The following sample was used for QC: 177540001 (9522-0001-001F).

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 1201250080 (9522-0001-001F), 177540003 (9522-0001-003F), 177540004 (9522-0001-004F), 177540005 (9522-0001-005F), 177540006 (9522-0001-006F), 177540009 (9522-0001-011F), 177540010 (9522-0001-012F) and 177540015 (9522-0001-024-I) were recounted due to a suspected false positive. Samples were reprepped due to high relative percent difference/relative error ratio.

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

The MDA for sample 177540001 (9522-0001-001F) was used to calculcate the relative percent difference.

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: 12/22/06

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#06-1549 GEL Work Order: 177540

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.

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0001–001F	Project:	YANK01204
Sample ID:	177540001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	29.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0168	+/–0.0162	0.0147	+/–0.0162	0.0314	pCi/g		KSD1	12/21/06	1601	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	72	(25%–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.

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-001F Project: YANK01204
Sample ID: 177540001 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–002F	Project:	YANK01204
Sample ID:	177540002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	28.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0128	+/–0.0177	0.0162	+/–0.0177	0.036	pCi/g		KSD1	12/21/06	1601	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	80	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	80	(25%–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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–002F Project: YANK01204
Sample ID: 177540002 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–003F	Project:	YANK01204
Sample ID:	177540003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	32.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.042	+/–0.0207	0.0136	+/–0.0208	0.0304	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	72	(25%–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.

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–003F Project: YANK01204
Sample ID: 177540003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–004F	Project:	YANK01204
Sample ID:	177540004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	42%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0319	+/–0.0236	0.017	+/–0.0236	0.0376	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	59	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	59	(25%–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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-004F Project: YANK01204
Sample ID: 177540004 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–005F	Project:	YANK01204
Sample ID:	177540005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	38.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0179	+/–0.0179	0.0133	+/–0.0179	0.0296	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	73	(25%–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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–005F Project: YANK01204
Sample ID: 177540005 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–006F	Project:	YANK01204
Sample ID:	177540006	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	44.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.159	+/–0.0263	0.012	+/–0.0266	0.0264	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	88	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	88	(25%–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

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–006F Project: YANK01204
Sample ID: 177540006 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0001-009F	Project:	YANK01204
Sample ID:	177540007	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09-NOV-06		
Receive Date:	30-NOV-06		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.000197	+/-0.0178	0.0149	+/-0.0178	0.0327	pCi/g		KSD1	12/21/06	1602	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	82	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	82	(25%-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.

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-009F Project: YANK01204
Sample ID: 177540007 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–010F	Project:	YANK01204
Sample ID:	177540008	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	29.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0288	+/–0.0241	0.0173	+/–0.0241	0.0388	pCi/g		KSD1	12/21/06	1608	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	74	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	74	(25%–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.

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–010F Project: YANK01204
Sample ID: 177540008 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0001-011F	Project:	YANK01204
Sample ID:	177540009	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09-NOV-06		
Receive Date:	30-NOV-06		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	-0.00662	+/-0.0149	0.0131	+/-0.0149	0.0289	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	80	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	80	(25%-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.

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–011F Project: YANK01204
Sample ID: 177540009 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–012F	Project:	YANK01204
Sample ID:	177540010	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.037	+/–0.0177	0.0118	+/–0.0177	0.026	pCi/g		KSD1	12/22/06	1204	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	88	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	88	(25%–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.

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-012F Project: YANK01204
Sample ID: 177540010 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0001–013F	Project:	YANK01204
Sample ID:	177540011	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0335	+/–0.0235	0.0139	+/–0.0235	0.0343	pCi/g		KSD1	12/21/06	1658	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	81	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	81	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-013F Project: YANK01204
Sample ID: 177540011 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–015F	Project:	YANK01204
Sample ID:	177540012	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	09–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	12%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.000807	+/–0.0199	0.0166	+/–0.0199	0.0381	pCi/g		KSD1	12/21/06	1658	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–015F Project: YANK01204
Sample ID: 177540012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–016F	Project:	YANK01204
Sample ID:	177540013	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	15–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	23.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.00289	+/–0.0178	0.0153	+/–0.0178	0.0354	pCi/g		KSD1	12/21/06	1859	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	105	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	105	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0001–016F Project: YANK01204
Sample ID: 177540013 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–021–I	Project:	YANK01204
Sample ID:	177540014	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	16–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	16.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0164	+/–0.0169	0.0112	+/–0.0169	0.0275	pCi/g		KSD1	12/21/06	1859	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	100	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	100	(25%–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.

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-021-I Project: YANK01204
Sample ID: 177540014 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0001–024–I	Project:	YANK01204
Sample ID:	177540015	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	21–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	44.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.026	+/–0.0185	0.0119	+/–0.0185	0.0281	pCi/g		KSD1	12/22/06	1205	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	105	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	105	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0001-024-I Project: YANK01204
Sample ID: 177540015 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–002F	Project:	YANK01204
Sample ID:	177540016	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	18.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0095	+/–0.0171	0.0158	+/–0.0171	0.0366	pCi/g		KSD1	12/21/06	1859	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	104	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	104	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-002F Project: YANK01204
Sample ID: 177540016 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–003F	Project:	YANK01204
Sample ID:	177540017	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	14.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.00348	+/–0.0155	0.0125	+/–0.0155	0.0292	pCi/g		KSD1	12/22/06	1205	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	107	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	107	(25%–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

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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-003F Project: YANK01204
Sample ID: 177540017 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-005F	Project:	YANK01204
Sample ID:	177540018	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0267	+/-0.0237	0.0168	+/-0.0237	0.0384	pCi/g		KSD1	12/21/06	1900	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	109	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	109	(25%-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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–005F Project: YANK01204
Sample ID: 177540018 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–007F	Project:	YANK01204
Sample ID:	177540019	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.00433	+/–0.0171	0.0137	+/–0.0171	0.0322	pCi/g		KSD1	12/21/06	1900	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	107	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	107	(25%–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

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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–007F Project: YANK01204
Sample ID: 177540019 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–008F	Project:	YANK01204
Sample ID:	177540020	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	28.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0235	+/–0.0229	0.0164	+/–0.0229	0.0375	pCi/g		KSD1	12/21/06	1900	597316	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1340	595082

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified
3	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	107	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	107	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-008F Project: YANK01204
Sample ID: 177540020 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0002–010F	Project:	YANK01204
Sample ID:	177540021	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	9.97%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0584	+/–0.0287	0.0155	+/–0.0288	0.0374	pCi/g		KSD1	12/15/06	1439	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	72	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–010F Project: YANK01204
Sample ID: 177540021 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–011F	Project:	YANK01204
Sample ID:	177540022	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	20.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0187	+/–0.0244	0.021	+/–0.0244	0.0433	pCi/g		KSD1	12/15/06	1823	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	65	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	65	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-011F Project: YANK01204
Sample ID: 177540022 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–012F	Project:	YANK01204
Sample ID:	177540023	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	23%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0332	+/–0.0184	0.018	+/–0.0184	0.0387	pCi/g		KSD1	12/15/06	1823	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	65	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	65	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–012F Project: YANK01204
Sample ID: 177540023 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0002–013F	Project:	YANK01204
Sample ID:	177540024	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30–OCT–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	22.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0663	+/–0.0236	0.0154	+/–0.0237	0.0335	pCi/g		KSD1	12/15/06	1823	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0002-013F Project: YANK01204
Sample ID: 177540024 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-014F	Project:	YANK01204
Sample ID:	177540025	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	22.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.122	+/-0.0325	0.0134	+/-0.0327	0.0319	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	75	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	75	(25%-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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–014F Project: YANK01204
Sample ID: 177540025 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0002-016F	Project:	YANK01204
Sample ID:	177540026	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	30-OCT-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	42.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0131	+/-0.0182	0.0139	+/-0.0182	0.0311	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	79	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	79	(25%-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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0002–016F Project: YANK01204
Sample ID: 177540026 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–001F	Project:	YANK01204
Sample ID:	177540027	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	5.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0111	+/–0.0195	0.0156	+/–0.0195	0.0337	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-001F Project: YANK01204
Sample ID: 177540027 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–002F	Project:	YANK01204
Sample ID:	177540028	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	8.78%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.121	+/–0.0277	0.0158	+/–0.028	0.0344	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	74	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	74	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-002F Project: YANK01204
Sample ID: 177540028 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0003-003F	Project:	YANK01204
Sample ID:	177540029	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	19.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0478	+/-0.0239	0.0163	+/-0.024	0.0359	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	69	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	69	(25%-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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-003F Project: YANK01204
Sample ID: 177540029 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0003-004F	Project:	YANK01204
Sample ID:	177540030	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	19.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0504	+/-0.0263	0.0167	+/-0.0263	0.038	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	63	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	63	(25%-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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-004F Project: YANK01204
Sample ID: 177540030 Client ID: YANK001
Vol. Recv.:

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

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0003–005F	Project:	YANK01204
Sample ID:	177540031	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	9.28%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0377	+/–0.0217	0.0146	+/–0.0217	0.0327	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–005F Project: YANK01204
Sample ID: 177540031 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0003-007F	Project:	YANK01204
Sample ID:	177540032	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	19.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	-0.0227	+/-0.0165	0.0153	+/-0.0165	0.0328	pCi/g		KSD1	12/15/06	1824	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	77	(25%-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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–007F Project: YANK01204
Sample ID: 177540032 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–008F	Project:	YANK01204
Sample ID:	177540033	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	03–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	26.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0447	+/–0.0138	0.0102	+/–0.0139	0.0212	pCi/g		KSD1	12/15/06	1929	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	73	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–008F Project: YANK01204
Sample ID: 177540033 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–009F	Project:	YANK01204
Sample ID:	177540034	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	10.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.024	+/–0.0122	0.00949	+/–0.0122	0.0197	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	74	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	74	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–009F Project: YANK01204
Sample ID: 177540034 Client ID: YANK001
Vol. Recv.:

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

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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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0003-010F	Project:	YANK01204
Sample ID:	177540035	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06-NOV-06		
Receive Date:	10-NOV-06		
Collector:	Client		
Moisture:	4.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	-0.00579	+/-0.0111	0.00953	+/-0.0111	0.0198	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	72	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	72	(25%-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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–010F Project: YANK01204
Sample ID: 177540035 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–011F	Project:	YANK01204
Sample ID:	177540036	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	8.03%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.00757	+/–0.0129	0.0111	+/–0.0129	0.0229	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	73	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	73	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-011F Project: YANK01204
Sample ID: 177540036 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–012F	Project:	YANK01204
Sample ID:	177540037	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0083	+/–0.0114	0.00982	+/–0.0114	0.0204	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0003-012F Project: YANK01204
Sample ID: 177540037 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–013F	Project:	YANK01204
Sample ID:	177540038	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	14.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.00789	+/–0.00969	0.00786	+/–0.00969	0.0163	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	87	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	87	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–013F Project: YANK01204
Sample ID: 177540038 Client ID: YANK001
Vol. Recv.:

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

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0003–014F	Project:	YANK01204
Sample ID:	177540039	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	4.71%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0145	+/–0.0102	0.0091	+/–0.0102	0.0189	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–014F Project: YANK01204
Sample ID: 177540039 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0003–015F	Project:	YANK01204
Sample ID:	177540040	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	06–NOV–06		
Receive Date:	10–NOV–06		
Collector:	Client		
Moisture:	4.81%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.00651	+/–0.0168	0.0142	+/–0.0168	0.0292	pCi/g		KSD1	12/15/06	1928	595174	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1237	595084

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	82	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	82	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0003–015F Project: YANK01204
Sample ID: 177540040 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522–0004–001F	Project:	YANK01204
Sample ID:	177540041	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	6.28%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0197	+/–0.0223	0.017	+/–0.0224	0.0375	pCi/g		KSD1	12/19/06	1849	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	72	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	72	(25%–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.

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–001F Project: YANK01204
Sample ID: 177540041 Client ID: YANK001
Vol. Recv.:

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

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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Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–002F	Project:	YANK01204
Sample ID:	177540042	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	3.79%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0804	+/–0.0265	0.0163	+/–0.027	0.0358	pCi/g		KSD1	12/19/06	1849	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	77	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	77	(25%–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.

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Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-002F Project: YANK01204
Sample ID: 177540042 Client ID: YANK001
Vol. Recv.:

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

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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East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–003F	Project:	YANK01204
Sample ID:	177540043	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	3.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0236	+/–0.0222	0.0167	+/–0.0223	0.0367	pCi/g		KSD1	12/18/06	1819	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	77	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	77	(25%–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.

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East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-003F Project: YANK01204
Sample ID: 177540043 Client ID: YANK001
Vol. Recv.:

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

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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East Hampton, Connecticut 06424 — Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–005F	Project:	YANK01204
Sample ID:	177540045	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	5.44%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	–0.0234	+/–0.0195	0.017	+/–0.0195	0.0349	pCi/g		KSD1	12/14/06	2006	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	68	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	68	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-005F Project: YANK01204
Sample ID: 177540045 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–006F	Project:	YANK01204
Sample ID:	177540046	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	4.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.00284	+/–0.0147	0.0123	+/–0.0147	0.0253	pCi/g		KSD1	12/15/06	1854	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	77	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	77	(25%–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

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–006F Project: YANK01204
Sample ID: 177540046 Client ID: YANK001
Vol. Recv.:

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

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–008F	Project:	YANK01204
Sample ID:	177540047	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0368	+/–0.0239	0.0174	+/–0.024	0.0378	pCi/g		KSD1	12/18/06	1819	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	77	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	77	(25%–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.

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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-008F Project: YANK01204
Sample ID: 177540047 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch	N

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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Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–009F	Project:	YANK01204
Sample ID:	177540048	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	9.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0343	+/–0.024	0.0182	+/–0.0241	0.0388	pCi/g		KSD1	12/15/06	0844	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	76	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	76	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-009F Project: YANK01204
Sample ID: 177540048 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–010F	Project:	YANK01204
Sample ID:	177540049	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.019	+/–0.025	0.020	+/–0.0251	0.0424	pCi/g		KSD1	12/15/06	0844	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	75	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	75	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–010F Project: YANK01204
Sample ID: 177540049 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–011F	Project:	YANK01204
Sample ID:	177540050	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	8.26%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90		0.0296	+/–0.0187	0.0131	+/–0.0188	0.029	pCi/g		KSD1	12/18/06	1819	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	87	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	87	(25%–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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-011F Project: YANK01204
Sample ID: 177540050 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	N

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522-0004-012F	Project:	YANK01204
Sample ID:	177540051	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22-NOV-06		
Receive Date:	30-NOV-06		
Collector:	Client		
Moisture:	68.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0196	+/-0.024	0.019	+/-0.024	0.0405	pCi/g		KSD1	12/15/06	0817	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	83	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	83	(25%-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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–012F Project: YANK01204
Sample ID: 177540051 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID:	9522-0004-013F	Project:	YANK01204
Sample ID:	177540052	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22-NOV-06		
Receive Date:	30-NOV-06		
Collector:	Client		
Moisture:	78.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	-0.00038	+/-0.0211	0.0177	+/-0.0211	0.0385	pCi/g		KSD1	12/18/06	1819	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	79	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	79	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–013F Project: YANK01204
Sample ID: 177540052 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–014F	Project:	YANK01204
Sample ID:	177540053	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	51.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.0195	+/–0.0171	0.0138	+/–0.0171	0.0284	pCi/g		KSD1	12/15/06	1854	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	71	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	71	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-014F Project: YANK01204
Sample ID: 177540053 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-0004-015F	Project:	YANK01204
Sample ID:	177540054	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22-NOV-06		
Receive Date:	30-NOV-06		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0359	+/-0.0237	0.0166	+/-0.0238	0.0369	pCi/g		KSD1	12/18/06	1833	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium-90	GFPC, Sr90, solid-ALL FSS	80	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	80	(25%-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.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-0004-015F Project: YANK01204
Sample ID: 177540054 Client ID: YANK001
Vol. Recv.:

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

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: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522–0004–016F	Project:	YANK01204
Sample ID:	177540055	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	22–NOV–06		
Receive Date:	30–NOV–06		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid–ALL FSS													
Strontium–90	U	0.00675	+/–0.0157	0.013	+/–0.0157	0.0268	pCi/g		KSD1	12/15/06	1854	595177	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	JMB1	12/12/06	1224	595086

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Strontium–90	GFPC, Sr90, solid–ALL FSS	68	(25%–125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid–ALL FSS	68	(25%–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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: December 22, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522–0004–016F Project: YANK01204
Sample ID: 177540055 Client ID: YANK001
Vol. Recv.:

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

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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: December 22, 2006

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 177540

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 595174										
QC1201245013 177540021 DUP										
Strontium-90		0.0584		0.141	pCi/g	83*		(0% - 100%)	KSD1	12/15/06 14:39
	Uncert:	+/-0.0287		+/-0.0374						
	TPU:	+/-0.0288		+/-0.0375						
QC1201245015 LCS										
Strontium-90	1.58			1.68	pCi/g		107	(75%-125%)		12/15/06 20:06
	Uncert:			+/-0.153						
	TPU:			+/-0.161						
QC1201245012 MB										
Strontium-90			U	-0.0237	pCi/g					12/15/06 19:33
	Uncert:			+/-0.0106						
	TPU:			+/-0.0106						
QC1201245014 177540021 MS										
Strontium-90	5.15	0.0584		5.07	pCi/g		97	(75%-125%)		12/15/06 20:06
	Uncert:	+/-0.0287		+/-0.459						
	TPU:	+/-0.0288		+/-0.482						
Batch 595177										
QC1201245021 177540041 DUP										
Strontium-90	U	0.0197	U	-0.00914	pCi/g	0		(0% - 100%)	KSD1	12/18/06 14:48
	Uncert:	+/-0.0223		+/-0.0185						
	TPU:	+/-0.0224		+/-0.0185						
QC1201245023 LCS										
Strontium-90	1.58			1.58	pCi/g		100	(75%-125%)		12/14/06 17:39
	Uncert:			+/-0.121						
	TPU:			+/-0.250						
QC1201245020 MB										
Strontium-90			U	0.00173	pCi/g					12/18/06 18:33
	Uncert:			+/-0.0167						
	TPU:			+/-0.0167						
QC1201245022 177540041 MS										
Strontium-90	4.92 U	0.0197		5.26	pCi/g		107	(75%-125%)		12/15/06 08:09
	Uncert:	+/-0.0223		+/-0.360						
	TPU:	+/-0.0224		+/-0.483						
Batch 597316										
QC1201250080 177540001 DUP										
Strontium-90	U	-0.0168		0.0309	pCi/g	2		(0% - 100%)	KSD1	12/22/06 12:05
	Uncert:	+/-0.0162		+/-0.0186						
	TPU:	+/-0.0162		+/-0.0186						
QC1201250082 LCS										
Strontium-90	1.46			1.43	pCi/g		98	(75%-125%)		12/21/06 20:14
	Uncert:			+/-0.0938						
	TPU:			+/-0.102						
QC1201250079 MB										
Strontium-90			U	-0.00679	pCi/g					12/21/06 19:01

QC Summary

Workorder: **177540**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 597316										
	Uncert:			+/-0.0159						
	TPU:			+/-0.0159						
QC1201250081 177540001 MS										
Strontium-90	4.25		U	3.52	pCi/g		83	(75%-125%)		12/21/06 20:14
	Uncert:	+/-0.0162		+/-0.245						
	TPU:	+/-0.0162		+/-0.257						

Notes:
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- * 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

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 4 (DQA RESULTS)

ATTACHMENT 4A
(PRELIMINARY DATA REVIEW)

RELEASE RECORD
Attachment 4

Survey Unit:	9522-0002
Area Description	Southeast Grounds (non-protected)
Classification	1
Survey Media	Surface Soils
Type of Survey	Final Status Survey
Number of Measurements	16 Static, 37 Investigative

STATISTICS on TOTAL POPULATION

	Cs-137	Co-60	Sr-90
$DCGL_{op}$ (ρCi/g):	5.38E+00	2.59E+00	1.05E+00
Minimum Value:	6.19E-02	-1.53E-02	-3.32E-02
Maximum Value:	9.07E+00	7.42E-01	3.49E-01
Mean:	1.81E+00	8.21E-02	6.24E-02
Median:	1.09E+00	3.16E-02	3.75E-02
Standard Deviation:	2.02E+00	1.33E-01	7.85E-02
$DCGL_{sur}$ (ρCi/g):	5.24E+00 *		

STATISTICS on NON-PARAMETRIC POPULATION

	Cs-137	Co-60	Sr-90
$DCGL_{op}$ (ρCi/g):	5.38E+00	2.59E+00	1.05E+00
Minimum Value:	6.19E-02	-9.75E-03	-3.32E-02
Maximum Value:	1.93E+00	1.62E-01	1.24E-01
Mean:	6.83E-01	2.88E-02	3.33E-02
Median:	6.72E-01	2.32E-02	2.51E-02
Standard Deviation:	5.12E-01	4.09E-02	4.45E-02

Sample ID	GPS Coordinates		Cs-137				Co-60				Sr-90				Fraction of DCGL
	North	East	Result (ρCi/g)	2σ	MDA (ρCi/g)	Identified	Result (ρCi/g)	2σ	MDA (ρCi/g)	Identified	Result (ρCi/g)	2σ	MDA (ρCi/g)	Identified	
9522-0002-001F	236577.94	669130.81	6.19E-02	0.079	6.57E-02		-9.75E-03	0.041	7.27E-02		1.24E-01	0.028	2.91E-02	+	0.126
9522-0002-002F	236544.29	669150.24	7.03E-02	0.055	4.00E-02	+	1.11E-02	0.023	4.59E-02		-9.50E-03	0.017	3.66E-02		0.009
9522-0002-003F	236544.29	669189.10	5.81E-01	0.079	6.57E-02	+	-9.75E-03	0.041	7.27E-02		3.48E-03	0.016	2.92E-02		0.110
9522-0002-004F	236510.63	669169.67	2.67E-01	0.053	4.82E-02	+	2.30E-04	0.047	5.58E-02		4.02E-02	0.018	2.43E-02	+	0.089
9522-0002-005F	236510.63	669208.54	7.68E-01	0.084	4.34E-02	+	3.27E-02	0.022	4.13E-02	+	2.67E-02	0.024	3.84E-02	+	0.185
9522-0002-006F	236510.63	669247.40	1.08E+00	0.110	3.70E-02	+	3.04E-02	0.043	3.06E-02		3.47E-02	0.022	3.29E-02	+	0.251
9522-0002-007F	236476.98	669189.10	3.46E-01	0.070	5.66E-02	+	8.53E-03	0.041	6.91E-02		4.33E-03	0.017	3.22E-02		0.073
9522-0002-008F	236476.98	669227.97	9.13E-01	0.087	4.78E-02	+	3.80E-02	0.028	5.74E-02	+	2.35E-02	0.023	3.75E-02	+	0.211
9522-0002-009F	236476.98	669266.83	1.17E+00	0.092	7.29E-02	+	3.70E-02	0.034	6.61E-02	+	2.27E-02	0.018	2.77E-02	+	0.259
9522-0002-0010F	236443.33	669169.67	3.87E-01	0.042	3.22E-02	+	4.13E-02	0.039	2.70E-02	+	5.84E-02	0.029	3.74E-02	+	0.145

RELEASE RECORD
Attachment 4

Sample ID	GPS Coordinates		Cs-137				Co-60				Sr-90				Fraction of DCGL
	North	East	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	
9522-0002-0011F	236443.33	669208.54	7.97E-01	0.084	4.84E-02	+	3.82E-02	0.032	6.58E-02	+	-1.87E-02	0.024	4.33E-02		0.149
9522-0002-0012F	236443.33	669247.40	7.62E-01	0.069	4.37E-02	+	1.26E-02	0.025	4.90E-02		-3.32E-02	0.018	3.87E-02		0.119
9522-0002-0013F	236409.67	669189.10	2.47E-01	0.033	3.09E-02	+	-4.51E-03	0.017	2.99E-02		6.63E-02	0.024	3.35E-02	+	0.109
9522-0002-0014F	236409.67	669227.97	1.30E+00	0.099	5.25E-02	+	5.76E-02	0.052	8.06E-02	+	1.22E-01	0.033	3.19E-02	+	0.386
9522-0002-0015F	236409.67	669266.83	1.93E+00	0.098	4.30E-02	+	1.62E-01	0.046	4.43E-02	+	5.47E-02	0.026	3.55E-02	+	0.483
9522-0002-0016F	236376.02	669247.40	2.48E-01	0.038	3.97E-02	+	1.59E-02	0.019	3.84E-02		1.31E-02	0.018	3.11E-02		0.066
9522-0002-007FS	236476.98	669189.10	2.57E-01	0.059	4.03E-02	+	-1.53E-02	0.025	4.32E-02		7.98E-03	0.022	4.15E-02		0.051
9522-0002-0024-I	236528.06	669142.91	3.46E-01	0.065	5.57E-02	+	7.42E-01	0.106	5.33E-02	+	1.66E-01	0.046	4.83E-02	+	0.511
9522-0002-0025-I	236537.05	669143.28	8.03E-01	0.079	4.24E-02	+	3.77E-01	0.064	4.94E-02	+	1.83E-01	0.045	4.81E-02	+	0.473
9522-0002-0026-I	236563.56	669129.28	1.83E-01	0.077	5.62E-02	+	7.33E-03	0.029	5.66E-02		1.35E-02	0.022	2.84E-02		0.051
9522-0002-0027-I	236530.59	669152.89	3.29E-01	0.066	6.18E-02	+	2.27E-02	0.033	6.39E-02		1.98E-02	0.023	3.78E-02		0.090
9522-0002-0028-I	236573.81	669130.47	2.39E-01	0.038	3.51E-02	+	0.00E+00	0.026	3.92E-02		2.53E-02	0.024	3.84E-02	+	0.070
9522-0002-0029-I	236445.12	669250.96	1.08E+00	0.107	8.51E-02	+	7.06E-02	0.083	7.75E-02		-6.81E-03	0.024	4.50E-02		0.227
9522-0002-0030-I	236415.28	669241.72	4.11E+00	0.117	4.06E-02	+	9.24E-02	0.044	4.00E-02	+	7.45E-02	0.026	3.20E-02	+	0.890
9522-0002-0031-I	236518.10	669243.42	9.83E-01	0.090	6.20E-02	+	2.11E-02	0.032	6.45E-02		2.70E-02	0.018	2.76E-02	+	0.221
9522-0002-0032-I	236450.69	669231.61	9.07E+00	0.210	5.45E-02	+	3.08E-01	0.059	4.60E-02	+	1.11E-01	0.032	3.38E-02	+	1.954
9522-0002-0033-1	236447.14	669232.09	5.49E+00	0.145	5.38E-02	+	1.22E-01	0.060	5.76E-02	+	7.05E-02	0.026	3.28E-02	+	1.161
9522-0002-0034-I	236404.17	669240.54	2.17E+00	0.103	4.46E-02	+	1.26E-01	0.056	4.48E-02	+	2.54E-01	0.053	4.82E-02	+	0.704
9522-0002-0035-I	236456.26	669233.63	5.88E+00	0.141	4.33E-02	+	1.06E-01	0.041	3.94E-02	+	2.60E-02	0.028	4.57E-02		1.187
9522-0002-0036-I	236422.29	669229.92	6.41E+00	0.632	6.10E-02	+	3.41E-01	0.079	5.95E-02	+	1.59E-01	0.043	4.50E-02	+	1.506
9522-0002-0037-I	236448.78	669225.45	7.37E+00	0.128	3.79E-02	+	2.99E-01	0.044	3.43E-02	+	9.03E-02	0.029	3.33E-02	+	1.607
9522-0002-0038-I	236454.53	669217.94	2.47E+00	0.219	4.28E-02	+	3.00E-02	0.045	4.78E-02		2.09E-02	0.024	4.00E-02		0.503
9522-0002-0039-I	236485.86	669207.87	4.77E+00	0.428	5.40E-02	+	2.45E-01	0.068	5.16E-02	+	3.49E-01	0.056	4.84E-02	+	1.337
9522-0002-0040-I	236474.94	669206.07	2.72E+00	0.261	4.35E-02	+	5.39E-02	0.051	4.12E-02	+	2.32E-02	0.023	3.77E-02	+	0.562
9522-0002-0041-I	236477.21	669199.70	1.29E+00	0.117	3.10E-02	+	2.95E-02	0.020	3.96E-02	+	4.72E-02	0.033	4.95E-02	+	0.302
9522-0002-0042-I	236488.82	669201.85	1.32E+00	0.101	6.67E-02	+	3.82E-02	0.053	8.03E-02		-6.70E-03	0.021	4.30E-02		0.260
9522-0002-0043-I	236493.08	669189.73	1.78E-01	0.047	4.39E-02	+	9.77E-04	0.028	5.01E-02		2.69E-02	0.022	3.41E-02	+	0.060
9522-0002-0044-I	236557.25	669162.71	2.89E+00	0.182	7.41E-02	+	1.75E-01	0.068	6.82E-02	+	4.40E-02	0.031	4.75E-02	+	0.661

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0002

RELEASE RECORD
Attachment 4

Sample ID	GPS Coordinates		Cs-137				Co-60				Sr-90				Fraction of DCGL
	North	East	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	
9522-0002-0045-I	236521.14	669243.22	9.57E-01	0.049	2.85E-02	+	2.23E-02	0.020	3.00E-02	+	7.87E-02	0.040	6.10E-02	+	0.266
9522-0002-0046-I	236517.98	669246.25	3.74E-01	0.041	2.28E-02	+	1.11E-02	0.013	2.29E-02		2.05E-02	0.012	1.97E-02	+	0.095
9522-0002-0047-I	236514.83	669243.22	1.07E+00	0.091	3.20E-02	+	3.64E-02	0.034	3.10E-02	+	8.07E-02	0.016	1.99E-02	+	0.295
9522-0002-0048-I	236517.98	669240.17	7.90E-01	0.084	2.78E-02	+	1.15E-02	0.017	3.12E-02		4.27E-02	0.013	1.91E-02	+	0.196
9522-0002-0049-I	236489.10	669207.88	1.15E+00	0.099	3.10E-02	+	0.00E+00	0.055	2.83E-02		3.02E-02	0.009	1.32E-02	+	0.248
9522-0002-0050-I	236485.48	669211.63	1.10E+00	0.107	3.22E-02	+	2.97E-01	0.044	2.86E-02	+	7.39E-02	0.016	2.12E-02	+	0.395
9522-0002-0051-I	236482.83	669208.08	3.39E+00	0.113	4.26E-02	+	6.66E-02	0.047	4.16E-02	+	1.04E-01	0.042	5.97E-02	+	0.771
9522-0002-0052-I	236486.02	669204.39	1.63E+00	0.070	3.61E-02	+	2.61E-02	0.028	3.54E-02		6.49E-02	0.011	1.13E-02	+	0.383
9522-0002-0053-I	236459.33	669234.95	7.62E-01	0.076	2.67E-02	+	1.65E-02	0.015	2.89E-02	+	5.63E-02	0.017	2.61E-02	+	0.205
9522-0002-0054-I	236459.33	669247.51	1.24E+00	0.043	2.23E-02	+	2.93E-02	0.021	2.25E-02	+	1.93E-02	0.013	2.17E-02	+	0.266
9522-0002-0055-I	236445.51	669248.12	1.10E+00	0.085	2.99E-02	+	2.01E-02	0.017	3.04E-02	+	-1.13E-02	0.012	2.15E-02		0.207
9522-0002-0056-I	236424.02	669249.75	5.26E+00	0.161	6.98E-02	+	9.19E-02	0.078	7.44E-02	+	3.41E-01	0.051	4.78E-02	+	1.363
9522-0002-0057-I	236411.80	669250.49	1.59E+00	0.174	4.58E-02	+	7.70E-02	0.038	4.86E-02	+	1.14E-01	0.016	2.18E-02	+	0.442
9522-0002-0058-I	236412.15	669224.80	1.62E+00	0.154	4.57E-02	+	5.15E-02	0.052	5.29E-02		-5.27E-03	0.012	2.12E-02		0.324
9522-0002-0059-I	236425.30	669223.97	1.33E+00	0.085	3.97E-02	+	2.41E-02	0.017	3.93E-02	+	1.58E-02	0.009	1.52E-02	+	0.278
9522-0002-0060-I	236447.69	669222.65	3.02E+00	0.251	4.64E-02	+	0.00E+00	0.069	3.88E-02		8.33E-02	0.015	2.23E-02	+	0.655
9522-0002-0061-I	236418.69	669253.45	1.87E+00	0.100	4.63E-02	+	1.88E-02	0.029	5.54E-02		2.09E-01	0.044	3.65E-02	+	0.563
9522-0002-0062-I	236424.57	669256.3	1.14E+00	0.063	3.10E-02	+	3.06E-02	0.035	3.10E-02		4.06E-02	0.031	4.75E-02	+	0.268
9522-0002-0063-I	236429.33	669252.57	1.93E+00	0.067	3.28E-02	+	4.12E-02	0.037	4.43E-02	+	7.68E-02	0.037	4.96E-02	+	0.457
9522-0002-0064-I	236427.16	669245.67	3.33E+00	0.233	3.71E-02	+	1.46E-01	0.035	3.58E-02	+	2.92E-01	0.055	4.14E-02	+	0.970
9522-0002-0065-I	236420.11	669245.79	5.27E+00	0.428	3.59E-02	+	1.69E-01	0.049	3.15E-02	+	1.81E-01	0.045	4.47E-02	+	1.243

OTHER RADIONUCLIDES

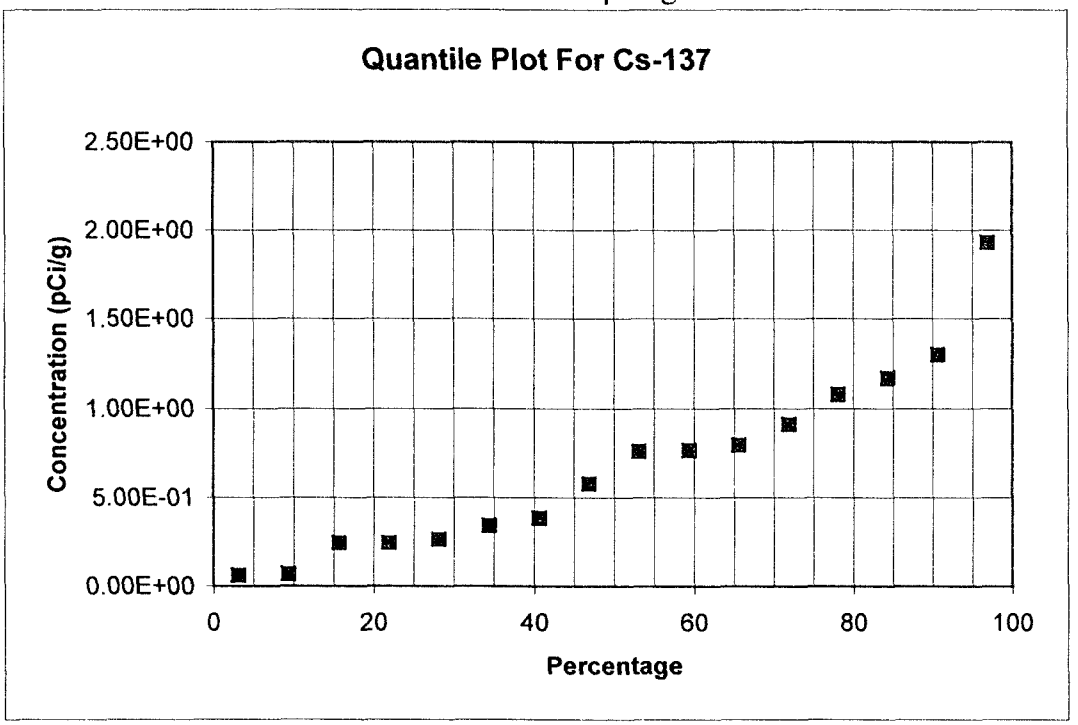
Sample ID	Isotope	Result (pCi/g)	2σ	MDA (pCi/g)	Identified	$DCGL_{op}$ (pCi/g)	Fraction of DCGL
9522-0002-0056-I	C-14	2.09E-01	0.116	1.91E-01	+	3.9E+00	0.054
9522-0002-0065-I	C-14	1.96E-01	0.124	2.06E-01	+	3.9E+00	0.051

* The Operational DCGL for Cs-137 has been adjusted to 5.24 pCi/g as a surrogate to account for the potential presence of HTD radionuclide C-14.

ATTACHMENT 4B (GRAPHICAL REPRESENTATION OF DATA)

QUANTILE PLOT FOR CESIUM-137

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 6.83E-01 pCi/g



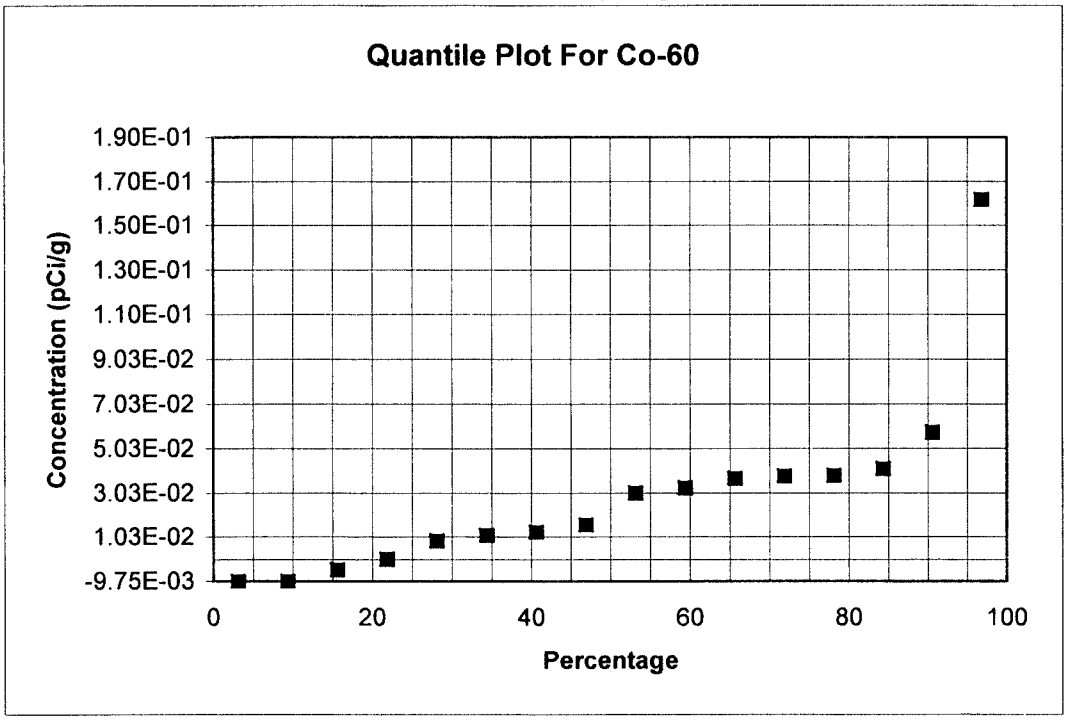
Cs-137	Rank	Percentage
6.19E-02	1	3.1%
7.03E-02	2	9.4%
2.47E-01	3	15.6%
2.48E-01	4	21.9%
2.67E-01	5	28.1%
3.46E-01	6	34.4%
3.87E-01	7	40.6%
5.81E-01	8	46.9%
7.62E-01	9	53.1%
7.68E-01	10	59.4%
7.97E-01	11	65.6%
9.13E-01	12	71.9%
1.08E+00	13	78.1%
1.17E+00	14	84.4%
1.30E+00	15	90.6%
1.93E+00	16	96.9%

D. WOJTKOWIAK 1/17/07
Submitted by/Date

R. MASSERGILL 1/18/07
Reviewed by/Date

QUANTILE PLOT FOR COBALT-60

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 2.88E-02 pCi/g



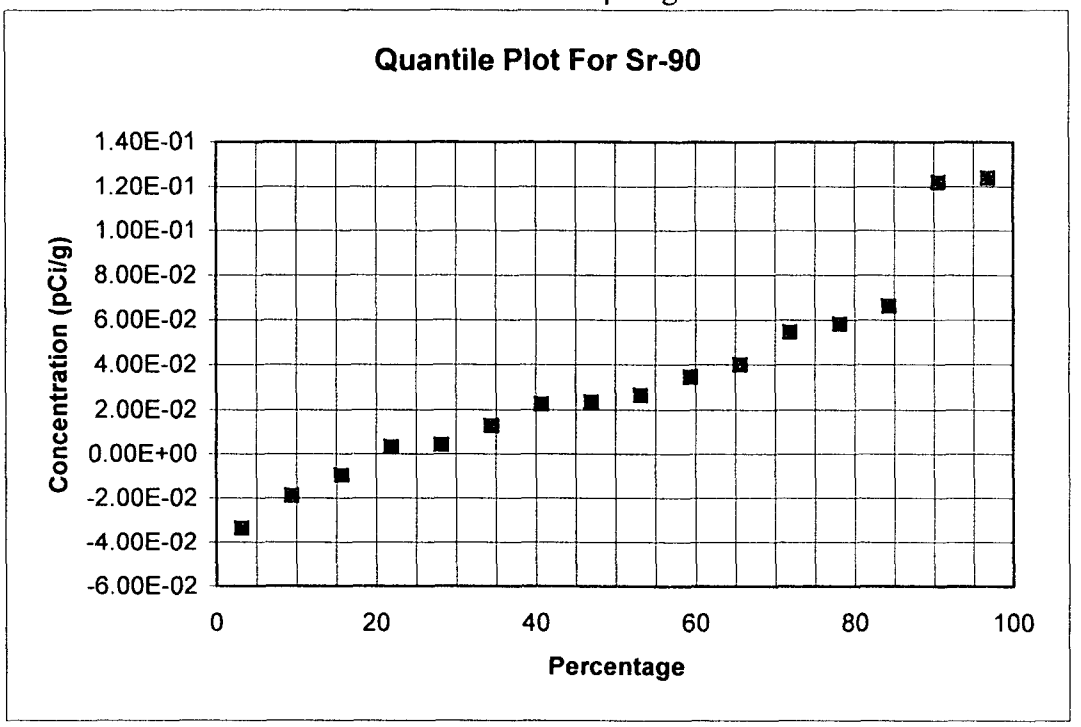
Co-60	Rank	Percentage
-9.75E-03	1	3.1%
-9.75E-03	2	9.4%
-4.51E-03	3	15.6%
2.30E-04	4	21.9%
8.53E-03	5	28.1%
1.11E-02	6	34.4%
1.26E-02	7	40.6%
1.59E-02	8	46.9%
3.04E-02	9	53.1%
3.27E-02	10	59.4%
3.70E-02	11	65.6%
3.80E-02	12	71.9%
3.82E-02	13	78.1%
4.13E-02	14	84.4%
5.76E-02	15	90.6%
1.62E-01	16	96.9%

D. WOJTKOWIAK 1/17/07
Submitted by/Date

R. MASSENGILL 1/18/07
Reviewed by/Date

QUANTILE PLOT FOR STRONTIUM-90

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 3.33E-02 pCi/g



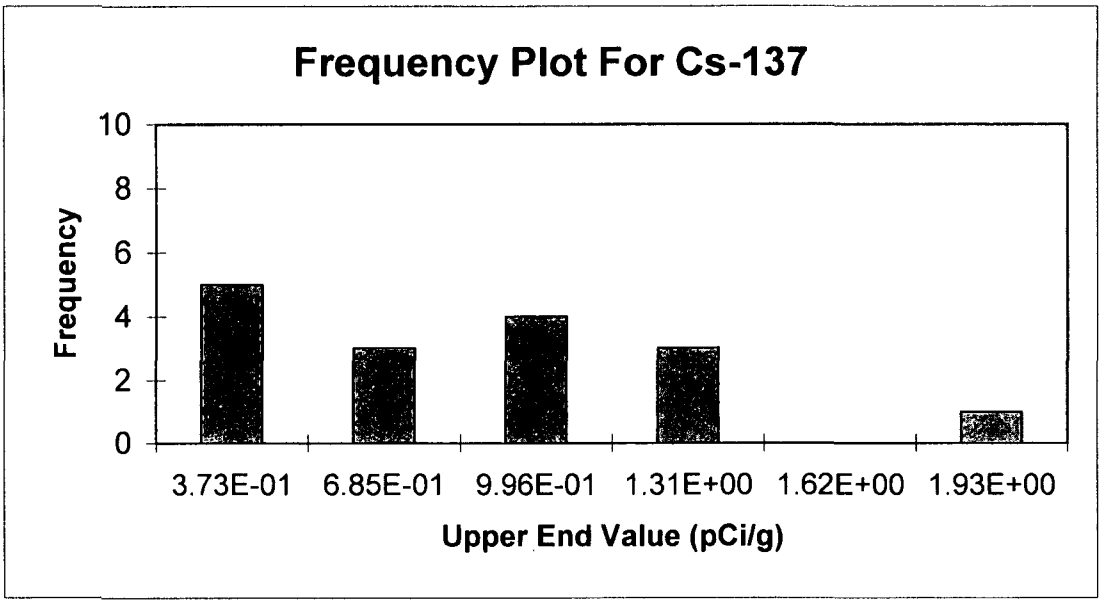
Sr-90	Rank	Percentage
-3.32E-02	1	3.1%
-1.87E-02	2	9.4%
-9.50E-03	3	15.6%
3.48E-03	4	21.9%
4.33E-03	5	28.1%
1.31E-02	6	34.4%
2.27E-02	7	40.6%
2.35E-02	8	46.9%
2.67E-02	9	53.1%
3.47E-02	10	59.4%
4.02E-02	11	65.6%
5.47E-02	12	71.9%
5.84E-02	13	78.1%
6.63E-02	14	84.4%
1.22E-01	15	90.6%
1.24E-01	16	96.9%

D. WOJTKOWIAK 1/17/07
Submitted by/Date

R. MASSERSILL 1/18/07
Reviewed by/Date

FREQUENCY PLOT FOR CESIUM-137

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 6.83E-01 pCi/g



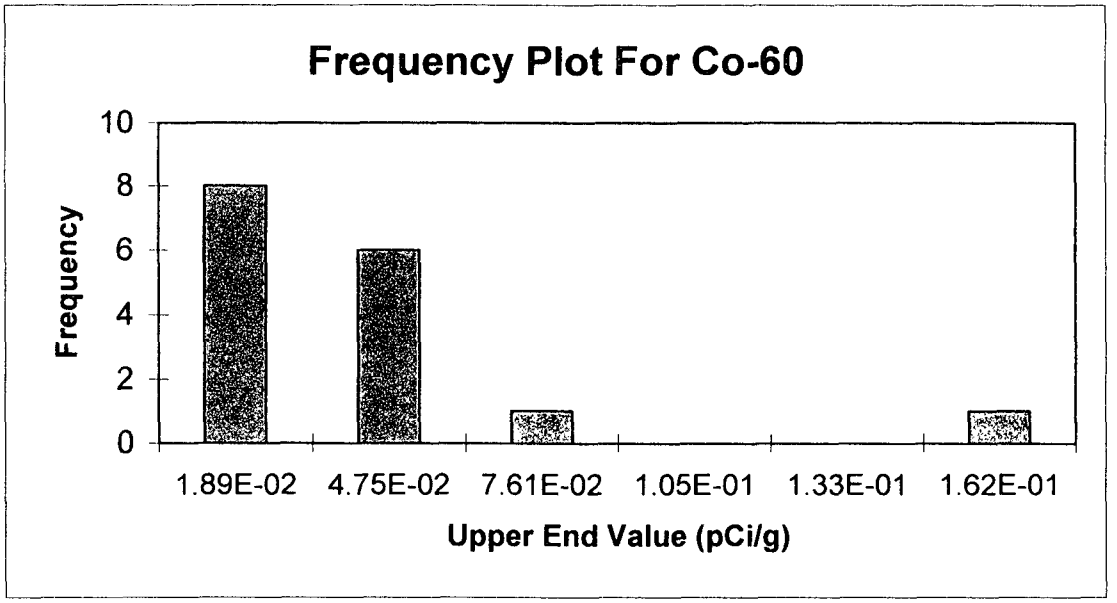
Upper End Value	Observation Frequency	Observation Frequency
3.73E-01	5	31%
6.85E-01	3	19%
9.96E-01	4	25%
1.31E+00	3	19%
1.62E+00	0	0%
1.93E+00	1	6%
Total:	16	100%

D. WOJTKOWIAK 1/17/07
Submitted by/Date

R. MASSENGILL 1/18/07
Reviewed by/Date

FREQUENCY PLOT FOR COBALT-60

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 2.88E-02 pCi/g



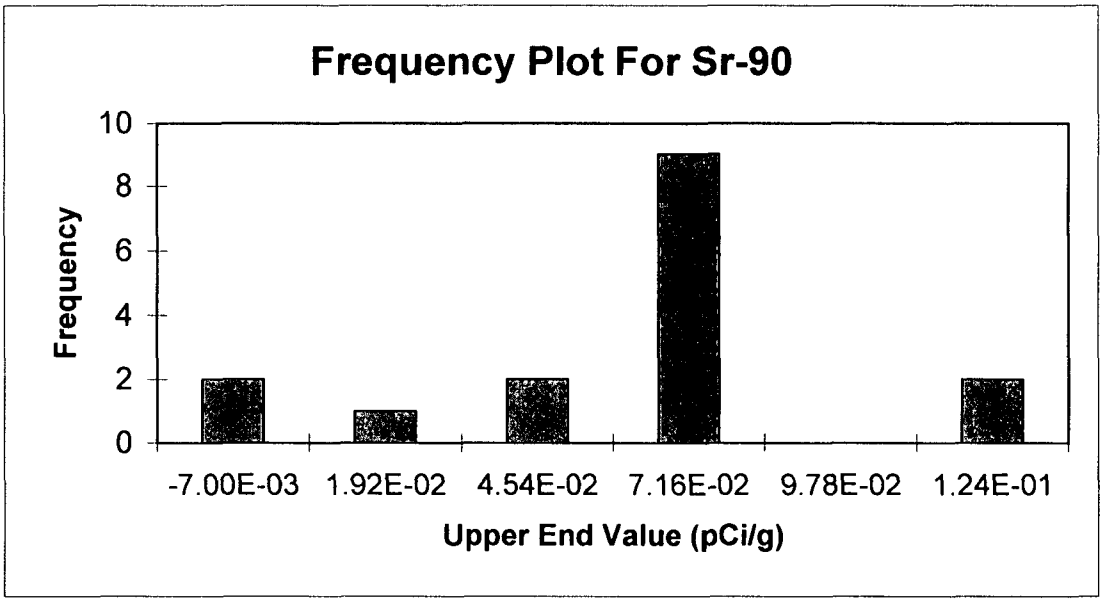
Upper End Value	Observation Frequency	Observation Frequency
1.89E-02	8	50%
4.75E-02	6	38%
7.61E-02	1	6%
1.05E-01	0	0%
1.33E-01	0	0%
1.62E-01	1	6%
Total:	16	100%

D. WOJTKOWIAK 1/17/07
Submitted by/Date

R. Massengill 1/18/07
Reviewed by/Date

FREQUENCY PLOT FOR STRONTIUM-90

Survey Unit: 9522-0002
Survey Unit Name: Southeast Site Grounds (non-protected area)
Mean: 3.33E-02 pCi/g



Upper End Value	Observation Frequency	Observation Frequency
-7.00E-03	2	13%
1.92E-02	1	6%
4.54E-02	2	13%
7.16E-02	9	56%
9.78E-02	0	0%
1.24E-01	2	13%
Total:	16	100%

D. Wojkowiak 1/17/07
Submitted by/Date

R. Massengill 1/18/07
Reviewed by/Date

ATTACHMENT 4C (SIGN TEST)

Sign Test Calculation Sheet for Multiple Radionuclides

Survey Area Number:	9522		Survey Unit Number:	0002	WPIR #:	2006-0047
Survey Area Name:	Southeast Site Grounds (non-protected area)		Classification:	1	TYPE I (α error): 0.05	N: 16
Radionuclides:	1st Radionuclide Cs-137	2nd Radionuclide Co-60	3rd Radionuclide Sr-90	4th Radionuclide		
DCGL:	5.24E+00	2.59E+00	1.05E+00			

Results 1st Radionuclide (pCi/g)	Results 2nd Radionuclide (pCi/g)	Results 3rd Radionuclide (pCi/g)	Results 4th Radionuclide (pCi/g)	Weighted Sum (W_s)	$1-W_s$	Sign
6.19E-02	-9.75E-03	1.24E-01		0.13	0.87	+1
7.03E-02	1.11E-02	-9.50E-03		0.01	0.99	+1
5.81E-01	-9.75E-03	3.48E-03		0.11	0.89	+1
2.67E-01	2.30E-04	4.02E-02		0.09	0.91	+1
7.68E-01	3.27E-02	2.67E-02		0.18	0.82	+1
1.08E+00	3.04E-02	3.47E-02		0.25	0.75	+1
3.46E-01	8.53E-03	4.33E-03		0.07	0.93	+1
9.13E-01	3.80E-02	2.35E-02		0.21	0.79	+1
1.17E+00	3.70E-02	2.27E-02		0.26	0.74	+1
3.87E-01	4.13E-02	5.84E-02		0.15	0.85	+1
7.97E-01	3.82E-02	-1.87E-02		0.15	0.85	+1
7.62E-01	1.26E-02	-3.32E-02		0.12	0.88	+1
2.47E-01	-4.51E-03	6.63E-02		0.11	0.89	+1
1.30E+00	5.76E-02	1.22E-01		0.39	0.61	+1
1.93E+00	1.62E-01	5.47E-02		0.48	0.52	+1
2.48E-01	1.59E-02	1.31E-02		0.07	0.93	+1
					Number of positive differences (S+)	16

Critical Value 11 Survey Unit Meets the Acceptance Criteria

Performed by: David Wojtkowiak Date: 1/17/2007

Independent Review by: Robert Massey Jr Date: 1/18/2007

ATTACHMENT 4D (QC SPLIT RESULTS)

Split Sample Assessment Form

Survey Area #: 9522	Survey Unit # 0002	Survey Unit Name:	Southeast Site Grounds (non-protected area)
Sample Plan or WPIR#: 2006-0047		SML#: 9522-0002-007	

Sample Description: Comparison of split samples collected from sample measurement location #7 and analyzed using gamma spectroscopy by off-site Vendor Laboratory. The standard sample was 9522-0002-007F, the comparison sample was 9522-0002-007FS.

STANDARD					COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	3.46E-01	0.035	10	0.7 - 1.66	2.57E-01	0.029	0.74	Y

Comments/Corrective Actions: None

Table is provided to show acceptance criteria used to assess split samples.

Resolution	Agreement Range
4 - 7	0.5 - 2.0
8 - 15	0.6 - 1.66
16 - 50	0.75 - 1.33
51 - 200	0.80 - 1.25
>200	0.85 - 1.18

Performed by: D. Wojtkowiak	Date: 1/15/2007	Reveiwed by: R. Massergill	Date: 1/18/07

ATTACHMENT 4E
(COMPASS POWER CURVE)

DQA Surface Soil Report

Assessment Summary

Site:	Southeast Grounds (non-protected area) 3		
Planner(s):	Wojo		
Survey Unit Name:	9522-0002		
Report Number:	1		
Survey Unit Samples:	16		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	***Reject Null Hypothesis (Survey Unit PASSES)***		

Retrospective Power Curve