



Final Status Survey Final Report Phase VI

**Appendix A8
Survey Unit Release Record
9522-0003, Southeast Site Grounds
(Non-Protected Area)**

February 2007



CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0003

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9522-0003 (Southeast Site Grounds (non-protected area) is designated as Final Status Survey (FSS) Class 1 and consists of approximately one thousand nine hundred ninety-seven square meters (1,997 m²) of uninhabited land and is located approximately one thousand fifty-five feet (1,055 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 9522-0006 and 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 9522-0004 to the west, land Survey Unit 9522-0001 to the south, and land Survey Unit 9522-0002 to the east. The survey unit is located in the approximate center of Survey Area 9522. The majority of the survey unit is flat and de-vegetated. This is a result of soil grading in support of previous remediation. The southeast quadrant of the survey unit contains rock outcroppings, rock ledge, underbrush and trees. The survey unit has a moderate slope running from southeast to northwest.

The reference coordinates associated with this survey unit are E011 through E013 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 9522-0003 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.

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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 9522-0003 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 open land 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. As the result of plant operations, there was a need to expand the industrial area to support plant operations and to control exposure to radiation. According to the "*Haddam Neck Plant Historic Site Assessment Supplement*," plant photos reveals that the area was gradually filled in from approximately 1972 to between 1974 and 1976, with soil that may have originated from on-site, raising the elevation up to site grade, 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 were shipped off-site for disposal in 2001. All of these events occurred in the northern portion of Survey Area 9522.

According to 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 ($1\text{E-}5 \mu\text{Ci/g}$) and, according to memo CH 89-854, the Chemistry Group initiated a sampling program at the drainage site to monitor activity.

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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. In addition, two (2) other areas exhibiting elevated activity were identified in 1997. 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 as a post-remediation Radiological Assessment (RA) 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, with 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. No HTD radionuclides were positively identified in concentrations greater than the screening criteria during the performance of these surveys. 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, as it was determined that it was unlikely that HTD radionuclides were present in any significant concentration, 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 (pCi/g)	Co-60 (pCi/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

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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 and 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 9522-0003 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

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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

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

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

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

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, and has been established for the radionuclides of concern as provided in Table 2.

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

Radionuclide ⁽¹⁾	Base Case Soil DCGL (pC/g) ⁽²⁾	Operational DCGL (pC/g) ⁽³⁾	Required MDC (pC/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 radionuclides 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

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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 9522-0003 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 9522-0003 (refer to Section 3). The characterization survey did not specifically address 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.

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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
9522-0003-001F	236413.31	669166.75
9522-0003-002F	236379.26	669147.10
9522-0003-003F	236379.26	669186.41
9522-0003-004F	236379.26	669225.73
9522-0003-005F	236345.21	669127.44
9522-0003-006F	236345.21	669166.75
9522-0003-007F	236345.21	669206.07
9522-0003-008F	236345.21	669245.39

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Table 3 - Sample Measurement Locations with Associated GPS Coordinates

Designation	Northing	Easting
9522-0003-009F	236345.21	669284.70
9522-0003-010F	236311.16	669107.78
9522-0003-011F	236311.16	669147.10
9522-0003-012F	236311.16	669186.41
9522-0003-013F	236311.16	669225.73
9522-0003-014F	236277.11	669127.44
9522-0003-015F	236277.11	669166.75
9522-0003-016F	236277.11	669206.07

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.

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Table 4 – Synopsis of the Survey Design

Feature	Design Criteria	Basis
Survey Unit Land Area	1,997 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 pCi/g, the LBGR was set at 0.5 to achieve a Relative Shift in the range of 1 and 3
Grid Spacing	11.98 m	Based on triangular grid
Operational DCGL	5.38 pCi/g Cs-137 2.59 pCi/g Co-60	Administratively set to achieve 17 mrem/yr TEDE ⁽¹⁾
Soil Investigation Level	5.38 pCi/g Cs-137 2.59 pCi/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 pCi/g Cs-137 and 1.83 pCi/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)

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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 9522-0003. Grid lines, one 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 5,720 counts per minute (cpm) up to 10,600 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 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 (9522-0003-006F and 9522-0003-016F) were randomly selected for HTD radionuclide analysis.

The implementation of survey specific quality control measures included the collection of one (1) sample (9522-0003-008F) for "split sample" analysis.

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6. SURVEY RESULTS

All field survey activities were conducted between October 27, 2006 and November 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	7.73	9.95	NO
2	7.50	8.76	NO
3	7.10	7.98	NO
4	8.88	8.39	YES
5	7.93	9.49	NO
6	8.11	8.94	NO
7	6.99	8.22	NO
8	7.01	7.35	NO
9	7.56	8.11	NO
10	6.08	6.37	NO
11	7.77	8.02	NO
12	7.39	8.22	NO
13	7.48	8.67	NO
14	5.19	6.88	NO
15	5.54	6.90	NO
16	6.71	6.09	YES

- (1) The action level is based on a measurement above ambient background in accordance with the FSS plan (Scan 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 9522-0003-004F and 9522-0003-016F were moved accordingly.

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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 20, 2006. 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
1 thru 10	8.28	6.24	9522-03-ER-00-07-1	9522-0003-017I
			9522-03-ER-00-07-2	9522-0003-018I
11 thru 20	9.53	8.04	9522-03-ER-00-17-1	9522-0003-019I
			9522-03-ER-00-17-2	9522-0003-020I
			9522-03-ER-00-17-3	9522-0003-021I
21 thru 30	28.70	10.20	9522-03-ER-00-22-1	9522-0003-022I
			9522-03-ER-00-22-2	9522-0003-023I
			9522-03-ER-00-23-1	9522-0003-024I
			9522-03-ER-00-24-1	9522-0003-025I
31 thru 40	11.10	10.10	9522-03-ER-00-32-1	9522-0003-033I
			9522-03-ER-00-34-2	9522-0003-034I
			9522-03-ER-00-37-1	9522-0003-026I
			9522-03-ER-00-40-1	9522-0003-027I
41 thru 50	11.70	9.56	9522-03-ER-00-42-1	9522-0003-028I
			9522-03-ER-00-44-1	9522-0003-029I
			9522-03-ER-00-46-1	9522-0003-030I
			9522-03-ER-00-49-1	9522-0003-031I
51 thru 60	11.80	9.98	9522-03-ER-00-53-1	9522-0003-032I

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Table 6 - (continued)

Scan Strips	Highest Logged Reading (kepm)	Action Level ⁽¹⁾ (kepm)	Elevated Reading Identification ⁽²⁾	Investigation Sample
61 thru 70	8.92	9.88	9522-03-ER-00-65-1	9522-0003-035I
71 thru 76	8.37	9.19	None	None

- (1) The action level is based on a measurement above ambient background (Scan MDC(DCGL_{EMC}) of 3,108 cpm)
- (2) ER and SC are abbreviations associated with the barcodes used in the field where ER stands for Elevated Reading and SC stands for Scan

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 nineteen (19) investigative 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 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 three (3) 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 lower than the concentrations of Cs-137 found in soil at off-site locations 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
9522-0003-001F	3.11E-02	6.20E-03
9522-0003-002F	1.59E-01	-2.91E-03
9522-0003-003F	3.42E-01	1.14E-02

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Table 7 - (continued)

Sample Number	Cs-137 pCi/g	Co-60 pCi/g
9522-0003-004F	7.13E-02	-5.45E-03
9522-0003-005F	9.08E-02	-6.60E-03
9522-0003-006F	1.37E-01	8.71E-03
9522-0003-007F	6.13E-01	3.03E-02
9522-0003-008F	7.30E-01	1.18E-02
9522-0003-009F	6.95E-01	9.68E-03
9522-0003-010F	7.69E-02	1.15E-02
9522-0003-011F	2.42E-02	9.98E-03
9522-0003-012F	7.76E-02	-1.70E-02
9522-0003-013F	2.87E-01	5.72E-03
9522-0003-014F	9.63E-02	2.71E-02
9522-0003-015F	9.66E-02	3.67E-02
9522-0003-016F	8.51E-02	7.91E-03

The off-site laboratory also processed two (2) samples for HTD analysis 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 standard deviations uncertainty) in both of the two 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 pCi/g to achieve a TEDE of seventeen (17) mrem/yr. The analytical results for Sr-90 in the two samples selected for HTD analysis respectively equated to 3% and 9% of the Operational DCGL. Subsequently, Sr-90 was added as a radionuclide of concern for this survey unit. In response, all samples that comprised the statistical sample population for this survey unit was subjected to additional analysis for the presence of Sr-90. The results are provided below in Table 8.

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Table 8 - Summary of Sr-90 Analysis Results for Surface Soil Samples Comprising the Statistical Sample Population	
Sample Number	Sr-90 pCi/g
9522-0003-001F	1.11E-02
9522-0003-002F	1.21E-01
9522-0003-003F	4.78E-02
9522-0003-004F	5.04E-02
9522-0003-005F	3.77E-02
9522-0003-006F	3.37E-02
9522-0003-007F	-2.27E-02
9522-0003-008F	4.47E-02
9522-0003-009F	2.40E-02
9522-0003-010F	-5.79E-03
9522-0003-011F	-7.57E-03
9522-0003-012F	-8.30E-03
9522-0003-013F	7.89E-03
9522-0003-014F	-1.45E-02
9522-0003-015F	-6.51E-03
9522-0003-016F	9.39E-02

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 3

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

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

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The results of the unity rule calculation for the radionuclides of concern in the statistical sample population for Survey Unit 9522-0003 are provided in Table 9 below.

Table 9 – 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	
9522-0003-001F	-	-	-	-
9522-0003-002F	0.03	-	0.12	0.14
9522-0003-003F	0.06	-	0.05	0.11
9522-0003-004F	0.01	-	0.05	0.06
9522-0003-005F	0.02	-	0.04	0.05
9522-0003-006F	0.03	-	0.03	0.06
9522-0003-007F	0.11	0.01	-	0.13
9522-0003-008F	0.14	-	0.04	0.18
9522-0003-009F	0.13	-	0.02	0.15
9522-0003-010F	0.01	-	-	0.01
9522-0003-011F	0.00	-	-	0.00
9522-0003-012F	0.01	-	-	0.01
9522-0003-013F	0.05	-	-	0.05
9522-0003-014F	0.02	0.01	-	0.03
9522-0003-015F	0.02	0.01	-	0.03
9522-0003-016F	0.02	-	0.09	0.11

(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.

(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.

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Analysis of the split sample results found the comparison ratio for Cs-137 to be slightly outside of the acceptable agreement range for the established resolution. Cs-137 has a likelihood to be tightly bound to organic mater in the sample matrix. Subsequently, it is presumed that there was inadequate homogeneous mixing of the sample-split matrix as the process is not very effective in dispersing the organic material uniformly throughout the aliquot due to the physical form of the organic material itself. Since K-40 was found to be present at an acceptable level of agreement, no further action is warranted.

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

8. INVESTIGATIONS AND RESULTS

Nineteen (19) 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.

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. Consequently, Sr-90 was added as a radionuclide of concern for this survey unit. All surface soil samples comprising the statistical sample population was subjected to additional analysis for the presence of Sr-90. Subsequently, the statistical sample population as a whole was 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 – Radionuclide Distribution Fraction for the Radionuclides of Concern in the Statistical Soil Sample Population	
Detected Radionuclide	Distribution Fraction
Cs-137	0.826
Co-60	0.036
Sr-90	0.138

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The potential presence of Sr-90 in the investigative samples taken that were not subjected to direct analysis for Sr-90 was 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 directly comparing the individual investigative sample results with the DCGL(s) as required by MARSSIM, 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 Sr-90. This result is referred to as the surrogate DCGL.

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

Equation 4

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

Where: $DCGL_{Sur}$ = Surrogate radionuclide DCGL
 $DCGL_{2,3,\dots,n}$ = 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 10, the following surrogate calculation was deduced;

Equation 5

$$Surrogate_{DCGL(Cs-137)} = \frac{1}{\left[\left(\frac{1}{5.38_{(Cs-137)}} \right) + \left(\frac{.138/.826}{1.05_{(Sr-90)}} \right) \right]} = 2.90 \text{ pCi/g}$$

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 2.90 pCi/g.

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The samples are denoted as shown in Table 6, with the sample results shown in Table 11 below.

Table 11 - Confirmatory Sample Results			
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Unity Fraction (1) (2)
9522-0003-0017-I	8.88E-02	5.45E-03	0.03
9522-0003-0018-I	3.90E-02	7.34E-04	0.01
9522-0003-0019-I	2.40E-02	7.19E-03	-
9522-0003-0020-I	4.95E-02	9.93E-03	0.02
9522-0003-0021-I	7.95E-02	1.10E-02	0.03
9522-0003-0022-I	9.49E-02	-6.10E-03	0.03
9522-0003-0023-I	1.83E-01	2.27E-02	0.07
9522-0003-0024-I	2.28E-01	2.29E-02	0.09
9522-0003-0025-I	8.49E-02	5.41E-03	0.03
9522-0003-0026-I	3.44E-01	0.00E+00	0.12
9522-0003-0027-I	2.25E-02	1.15E-04	-
9522-0003-0028-I	1.53E-02	-1.78E-03	-
9522-0003-0029-I	0.00E+00	1.00E-03	-
9522-0003-0030-I	2.95E-02	1.32E-02	-
9522-0003-0031-I	4.13E-01	0.00E+00	0.14
9522-0003-0032-I	8.20E-02	-4.98E-03	0.03
9522-0003-0033-I	1.81E-01	8.23E-03	0.06
9522-0003-0034-I	4.78E-01	0.00E+00	0.17
9522-0003-0035-I	8.35E-02	0.00E+00	0.03
(1) The Operational DCGL from Table 2 is 5.38 pCi/g for Cs-137 and 2.59 pCi/g for Co-60 to achieve seventeen (17) mrem/yr TEDE respectively. The Operational DCGL for Cs-137 has been adjusted to 2.90 pCi/g as a surrogate to account for the potential presence of HTD radionuclide Sr-90.			
(2) Blank cells indicate that no radionuclides were positively detected in the sample			

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9. REMEDIATION AND RESULTS

Significant remediation activities occurred in this survey unit prior to FSS. All above grade and below grade commodities and facility systems were removed and properly dispositioned. Contaminated soils that exceeded the screening criteria in effect for groundwater dose compliance were identified, excavated and removed as part of the "Zone 12" and "Excavation 7" remediation projects which occurred in this survey area. All excavations were characterized and backfilled with "clean" fill prior to performing FSS. As a byproduct of remediation activities, 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 and west. The majority of the southeastern half of the ground in this survey unit is comprised of stone from the ledge outcroppings along the eastern ridge. 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

Additional evaluation to account for the presence of Sr-90 was performed on the statistical survey population as a consequence of the results from the initial samples selected for HTD analysis. 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.

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 12.

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Table 12 – Basic Statistical Quantities for Cs-137, Co-60 and Sr-90 from the Final Status Survey			
	Cs-137 pCi/g	Co-60 pCi/g	Sr-90 pCi/g
DCGL _{op} :	5.38E+00	2.59E+00	1.05E+00
Minimum Value:	2.42E-02	-1.70E-02	-2.27E-02
Maximum Value:	7.30E-01	3.67E-02	1.21E-01
Mean:	2.26E-01	9.07E-03	2.54E-02
Median:	9.65E-02	9.20E-03	1.76E-02
Standard Deviation:	2.41E-01	1.38E-02	4.02E-02

For Cs-137 and Sr-90, the range of the data, about three (3) standard deviations, was not a particularly large variation considering that the levels were essentially at existing environmental levels where such variation is to be expected and the difference between the mean and median was about 54% and 20% 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 positive skewness as confirmed by the calculated skew of 1.4 for Cs-137 and 1.1 for Sr-90.

Co-60, although included in the FSS plan for compliance purposes, was positively identified in only three (3) of the fifteen (15) samples collected for non-parametric statistical testing. Assessment of the basic statistical quantities and graphical representation of Co-60 was not considered useful given the limited number of data points to represent the distribution.

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

12. ANOMALIES

Analysis of the split sample results found the comparison ratio for Cs-137 to be slightly outside of the acceptable agreement range for the established resolution. Cs-137 has a likelihood to be tightly bound to organic mater in the sample matrix. Subsequently, it is presumed that there was inadequate homogeneous mixing of the sample-split matrix as the process is not very effective in dispersing the organic material uniformly throughout the aliquot due to the physical form of the organic material itself. Since K-40 was found to be present at an acceptable level of agreement, no further action is warranted.

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13. CONCLUSION

Survey Unit 9522-0003 has met the final DQOs of the FSS plan. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved. Elevated Measurement Comparison was not required.

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 1.18 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 3.18 mrem/yr TEDE. Therefore, Survey Unit 9522-0003 is acceptable for unrestricted release.

14. ATTACHMENTS

14.1 Attachment 1 – Survey Unit Location Map

14.2 Attachment 2 – Scan Results

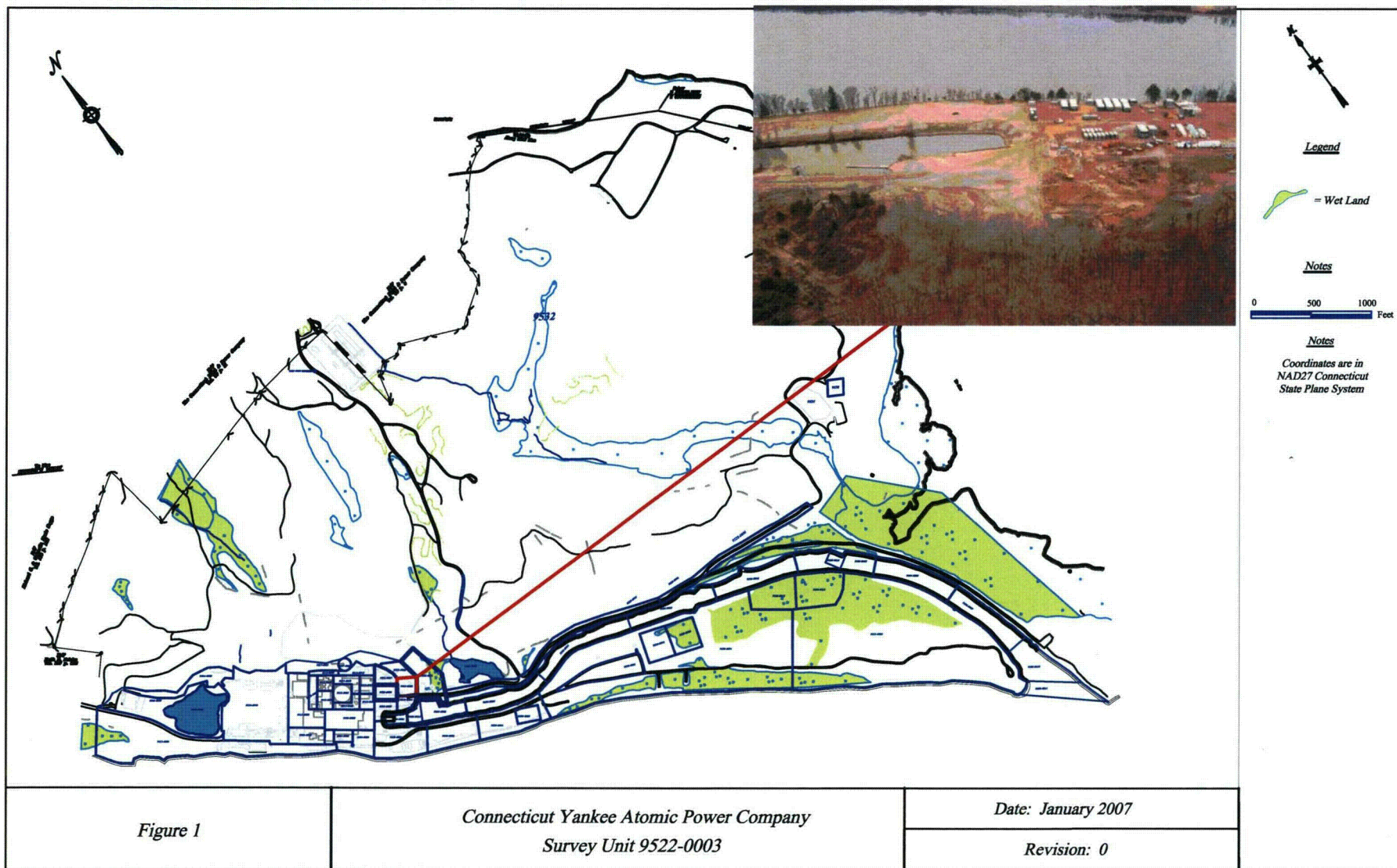
14.3 Attachment 3 – Laboratory Results

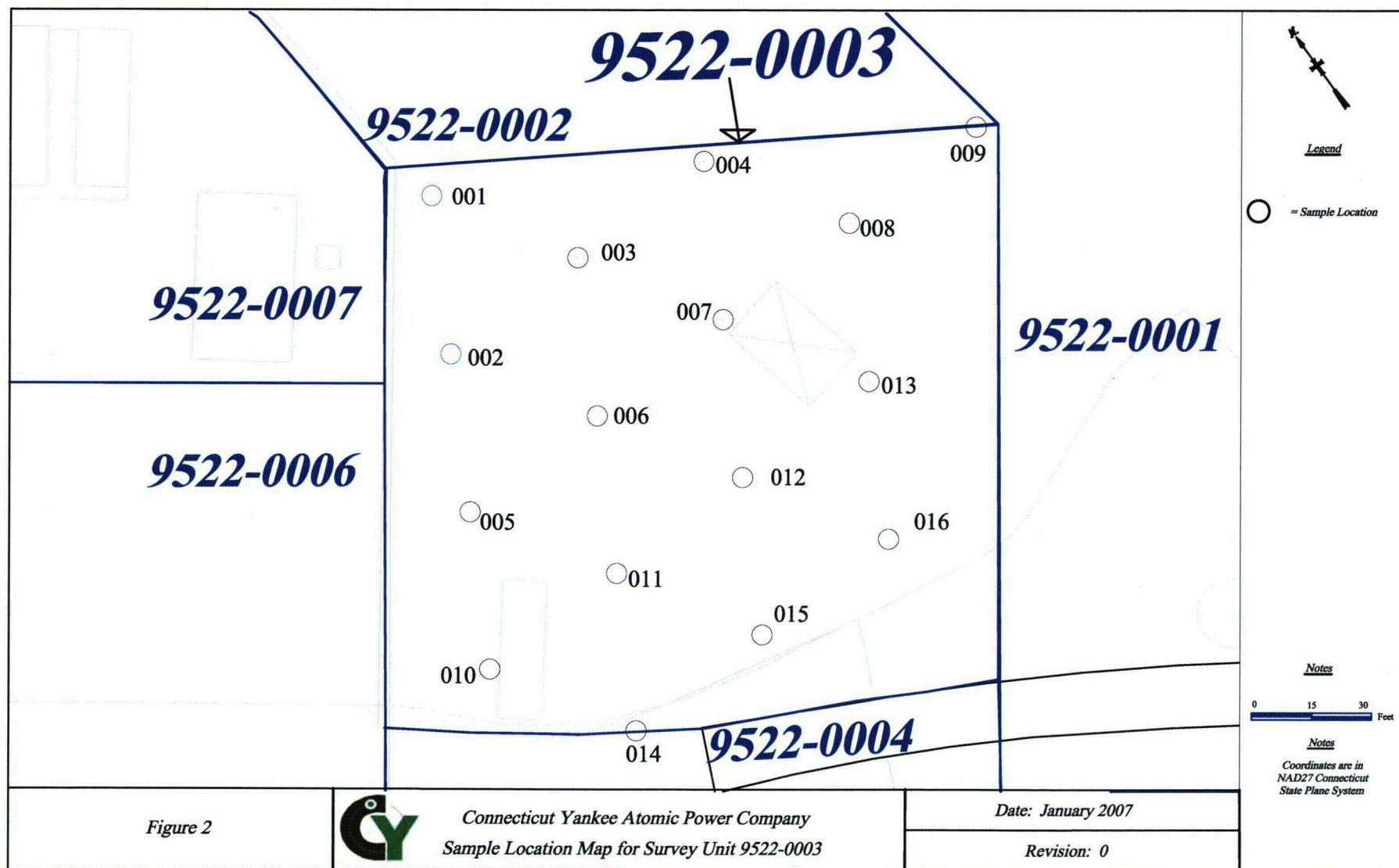
14.4 Attachment 4 – DQA Results

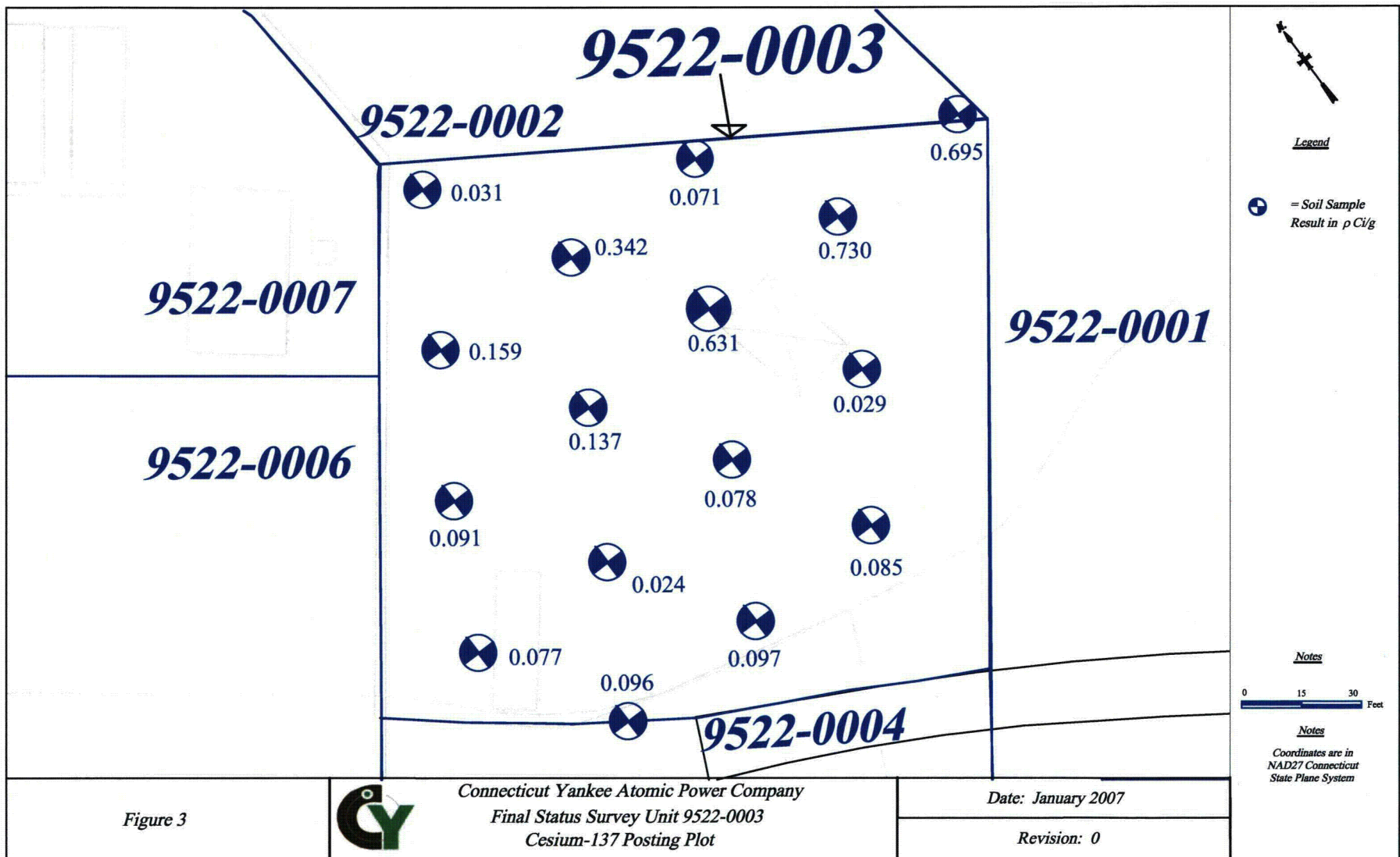
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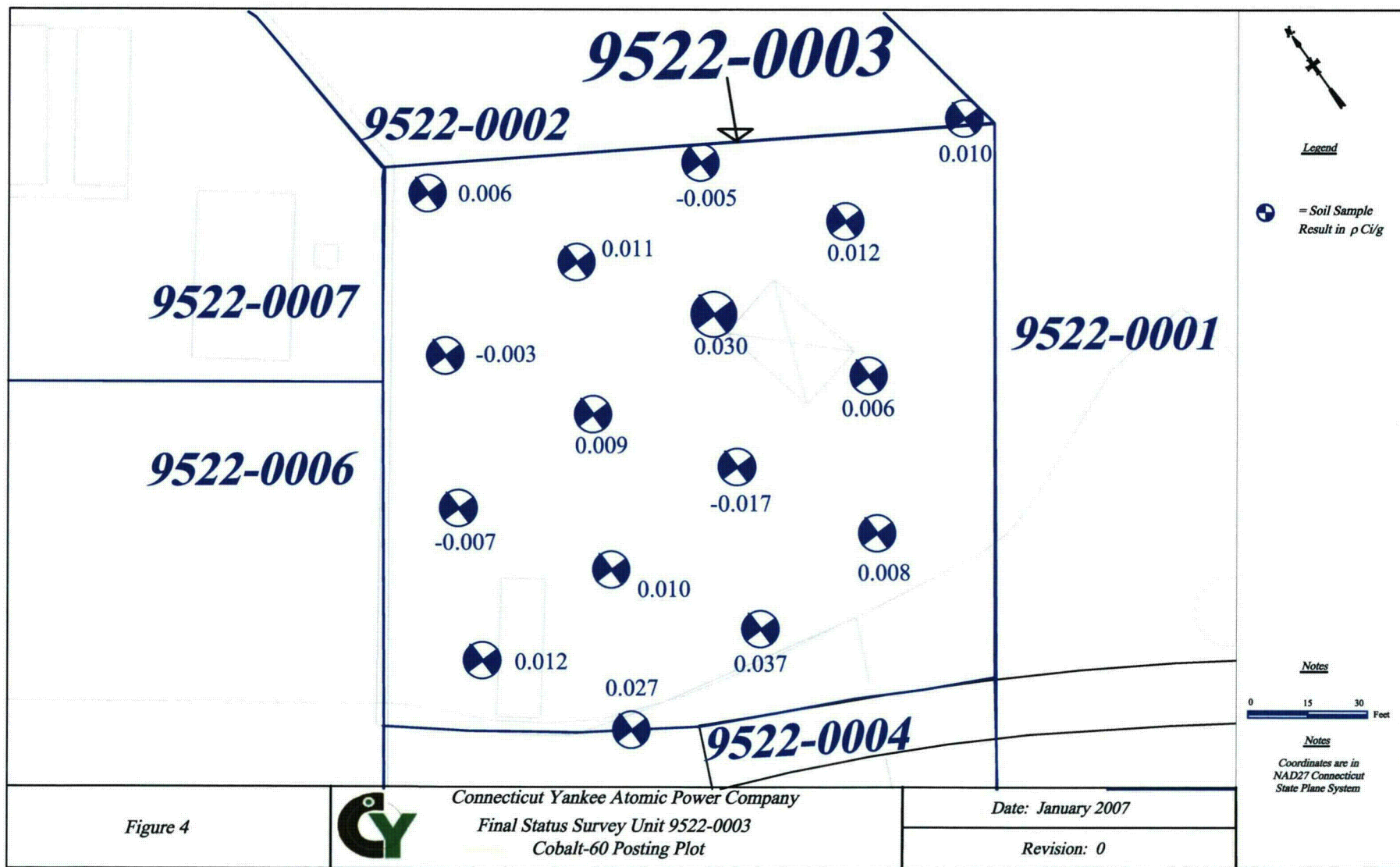
RELEASE RECORD

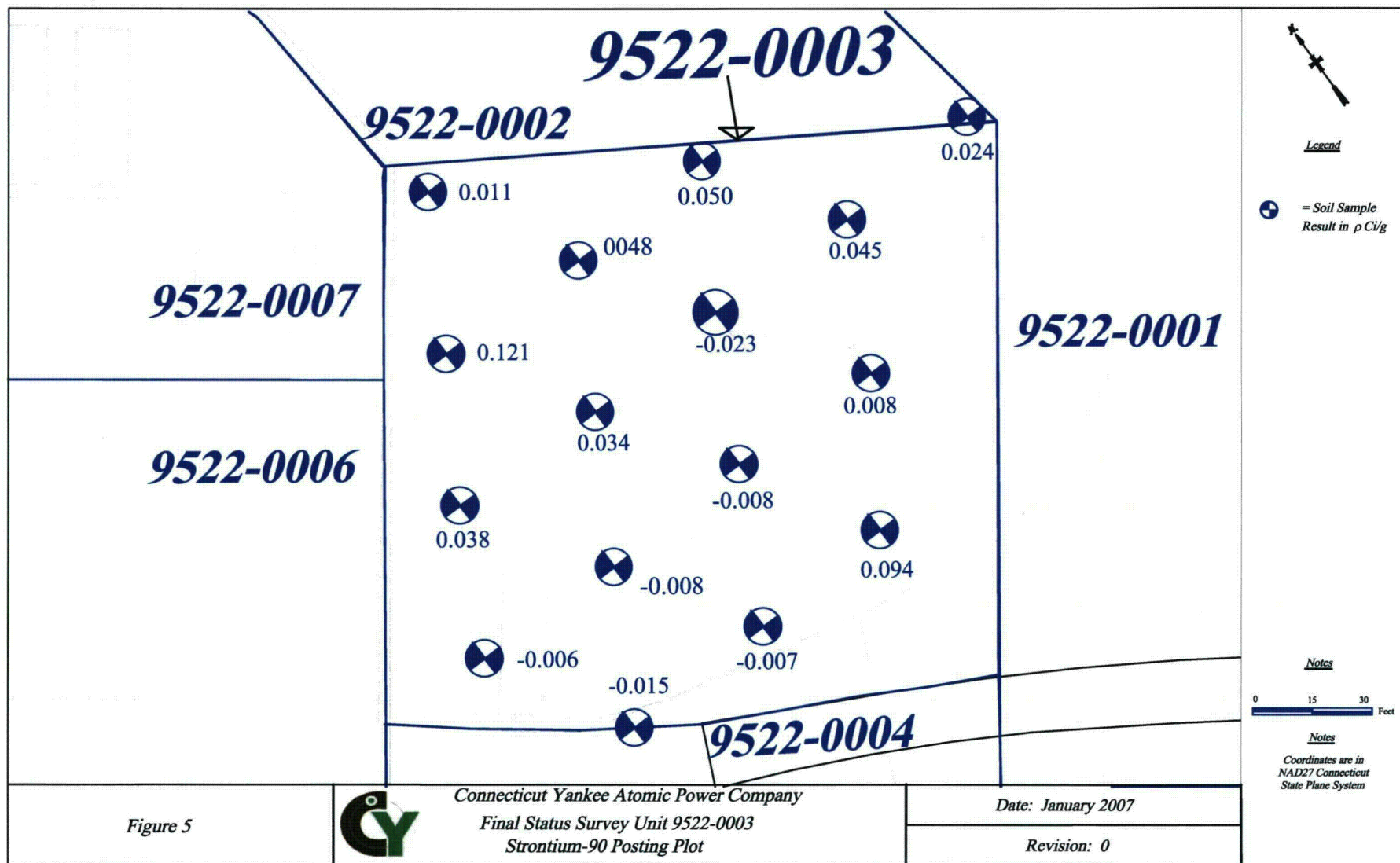
ATTACHMENT 1 (FIGURES)

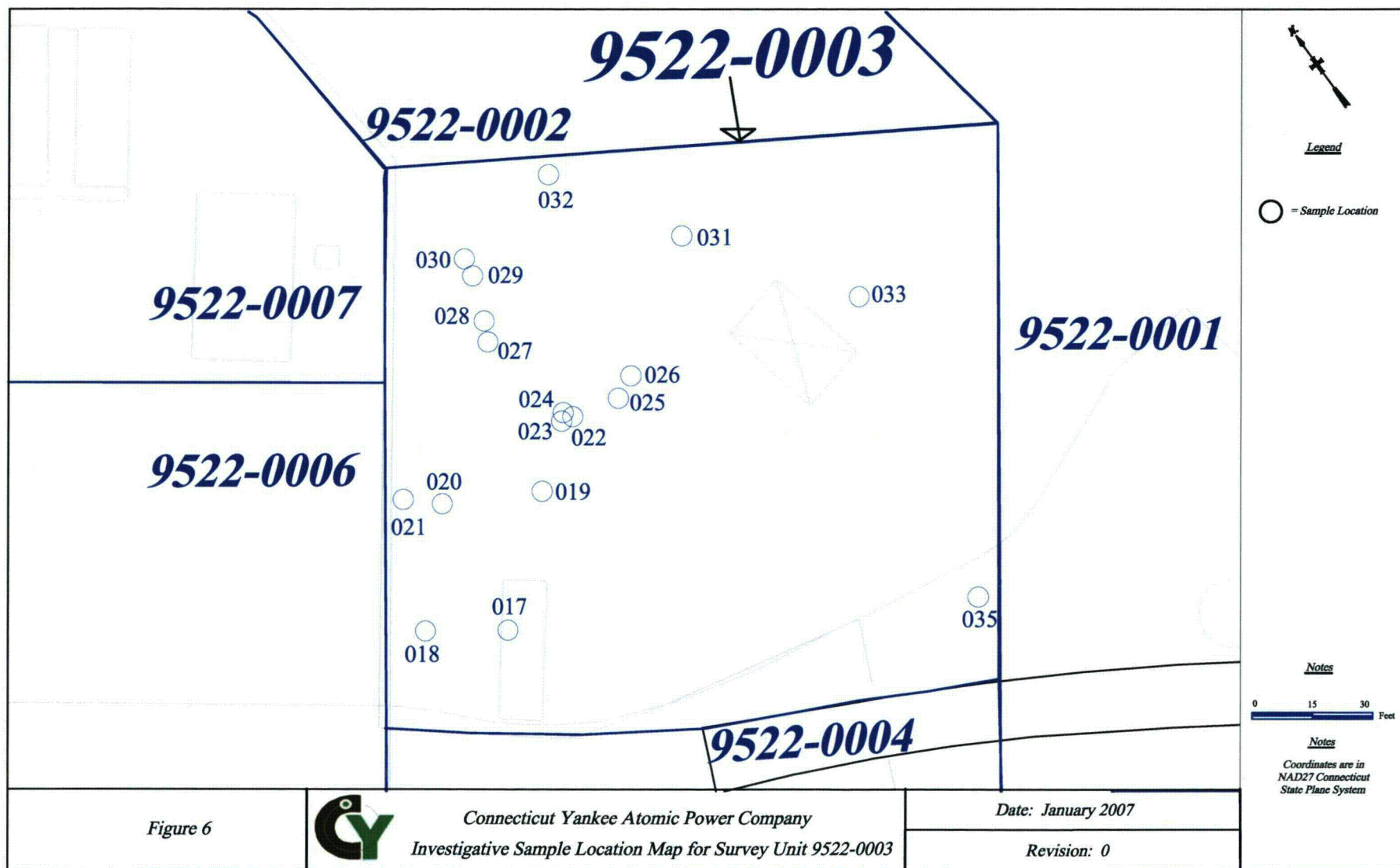


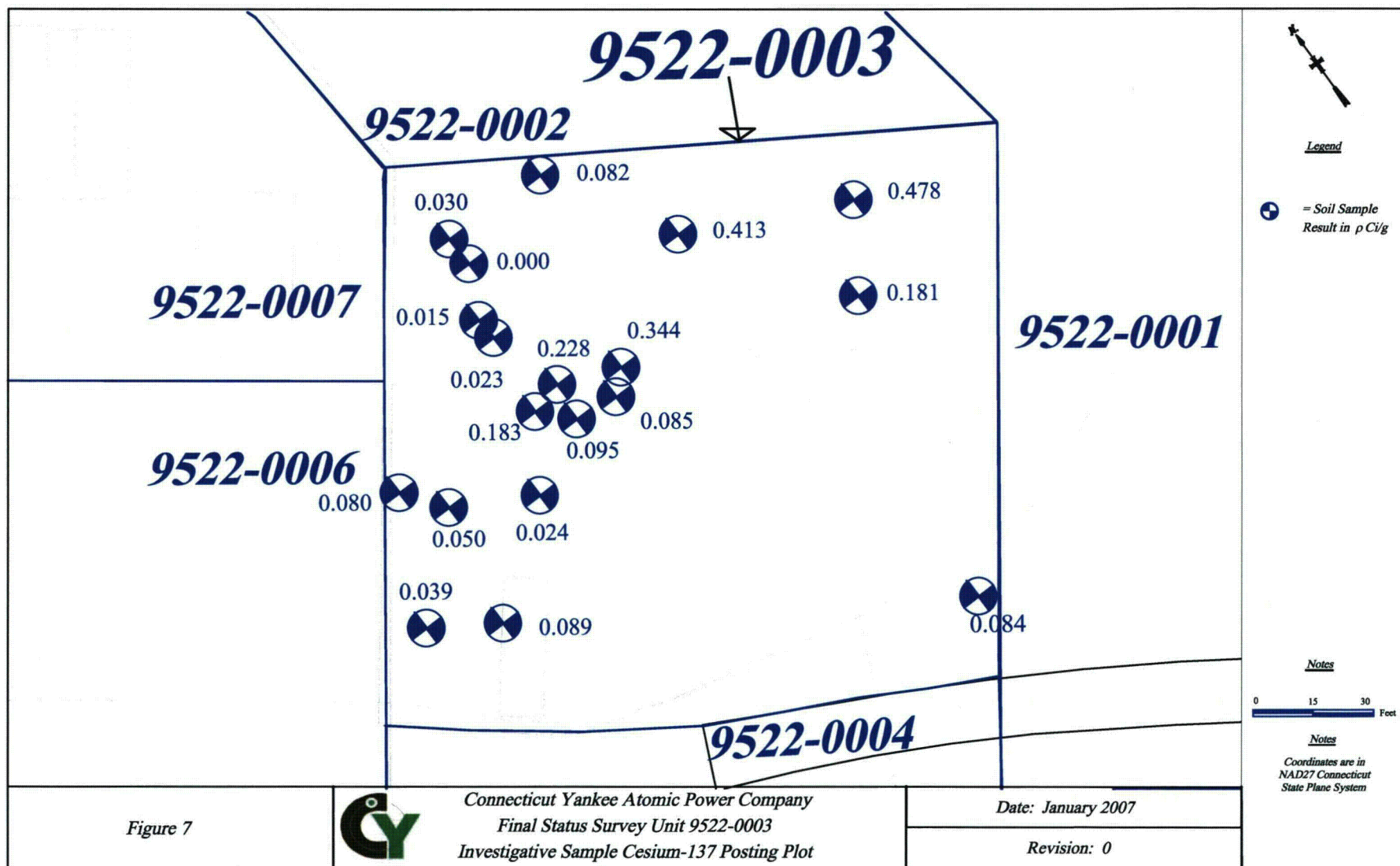


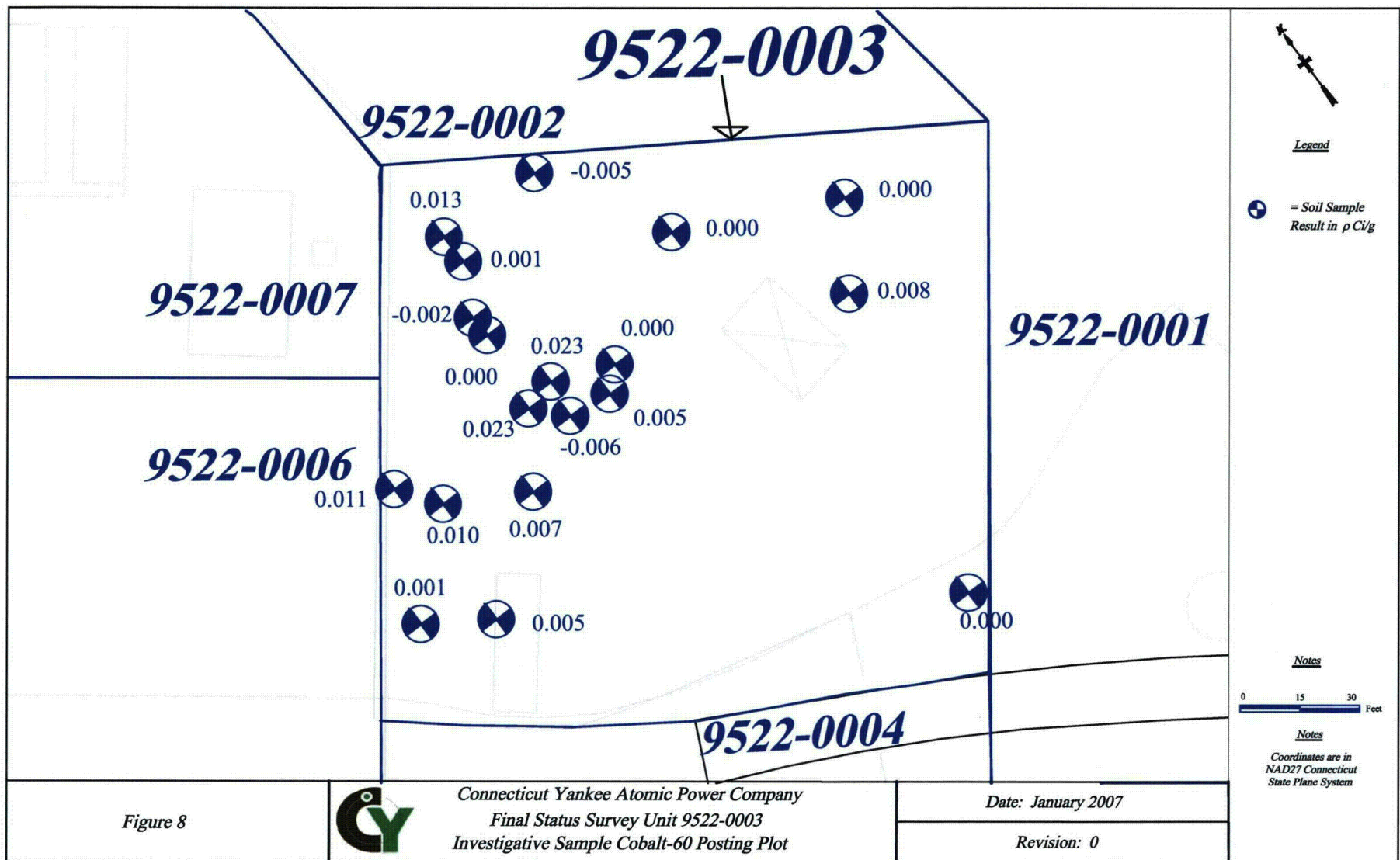












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ATTACHMENT 2 (SCAN RESULTS)

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Attachment 2

SCAN RESULTS @ SAMPLE LOCATIONS

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-03-BL-00-01-0	11/3/2006	12:51:00	8.62E+03			1112	1013
9522-03-SL-00-01-0	11/3/2006	12:54:00	7.73E+03	9.95E+03		1112	1013
9522-03-BL-00-02-0	11/3/2006	12:55:00	7.52E+03			1112	1013
9522-03-SL-00-02-0	11/3/2006	12:57:00	7.50E+03	8.76E+03		1112	1013
9522-03-BL-00-03-0	11/3/2006	12:59:00	6.80E+03			1112	1013
9522-03-SL-00-03-0	11/3/2006	13:01:00	7.10E+03	7.98E+03		1112	1013
9522-03-BL-00-04-0	11/3/2006	13:11:00	7.18E+03			1112	1013
9522-03-SL-00-04-0	11/3/2006	13:12:00	8.88E+03	8.39E+03	+	1112	1013
9522-03-BL-00-05-0	11/3/2006	13:03:00	8.20E+03			1112	1013
9522-03-SL-00-05-0	11/3/2006	13:04:00	7.93E+03	9.49E+03		1112	1013
9522-03-BL-00-06-0	11/3/2006	13:14:00	7.69E+03			1112	1013
9522-03-SL-00-06-0	11/3/2006	13:15:00	8.11E+03	8.94E+03		1112	1013
9522-03-BL-00-07-0	11/3/2006	13:16:00	7.02E+03			1112	1013
9522-03-SL-00-07-0	11/3/2006	13:18:00	6.99E+03	8.22E+03		1112	1013
9522-03-BL-00-08-0	11/3/2006	13:19:00	6.22E+03			1112	1013
9522-03-SL-00-08-0	11/3/2006	13:20:00	7.01E+03	7.35E+03		1112	1013
9522-03-BL-00-09-0	11/6/2006	7:34:00	6.92E+03			1112	1013
9522-03-SL-00-09-0	11/6/2006	7:34:00	7.56E+03	8.11E+03		1112	1013
9522-03-BL-00-10-0	11/6/2006	7:39:00	5.33E+03			1112	1013
9522-03-SL-00-10-0	11/6/2006	7:39:00	6.08E+03	6.37E+03		1112	1013
9522-03-BL-00-11-0	11/6/2006	7:37:00	6.84E+03			1112	1013
9522-03-SL-00-11-0	11/6/2006	7:37:00	7.77E+03	8.02E+03		1112	1013
9522-03-BL-00-12-0	11/6/2006	7:41:00	7.02E+03			1112	1013
9522-03-SL-00-12-0	11/6/2006	7:41:00	7.39E+03	8.22E+03		1112	1013
9522-03-BL-00-13-0	11/6/2006	8:05:00	7.44E+03			1112	1013
9522-03-SL-00-13-0	11/6/2006	8:05:00	7.48E+03	8.67E+03		1112	1013
9522-03-BL-00-14-0	11/6/2006	8:00:00	5.79E+03			1112	1013
9522-03-SL-00-14-0	11/6/2006	8:00:00	5.19E+03	6.88E+03		1112	1013
9522-03-BL-00-15-0	11/6/2006	8:03:00	5.81E+03			1112	1013
9522-03-SL-00-15-0	11/6/2006	8:03:00	5.54E+03	6.90E+03		1112	1013
9522-03-BL-00-16-0	11/6/2006	10:28:00	5.07E+03			1112	1013
9522-03-SL-00-16-0	11/6/2006	10:28:00	6.71E+03	6.09E+03	+	1112	1013

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Attachment 2

SCAN RESULTS FOR SCAN STRIPS

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-03-BC-00-01-0	10/31/2006	8:06:00	5.83E+03			1112	1013
9522-03-SC-00-01-0	10/31/2006	8:10:00	6.23E+03	6.92E+03		1112	1013
9522-03-BC-00-02-0	10/31/2006	8:11:00	6.40E+03			1112	1013
9522-03-SC-00-02-0	10/31/2006	8:14:00	5.93E+03	7.54E+03		1112	1013
9522-03-BC-00-03-0	10/31/2006	8:15:00	6.29E+03			1112	1013
9522-03-SC-00-03-0	10/31/2006	8:18:00	6.58E+03	7.42E+03		1112	1013
9522-03-BC-00-04-0	10/31/2006	8:19:00	6.93E+03			1112	1013
9522-03-SC-00-04-0	10/31/2006	8:22:00	5.68E+03	8.12E+03		1112	1013
9522-03-BC-00-05-0	10/31/2006	8:22:00	6.14E+03			1112	1013
9522-03-SC-00-05-0	10/31/2006	8:25:00	6.97E+03	7.26E+03		1112	1013
9522-03-BC-00-06-0	10/31/2006	10:00:00	7.86E+03			1112	1013
9522-03-SC-00-06-0	10/31/2006	10:02:00	5.92E+03	9.13E+03		1112	1013
9522-03-BC-00-07-0	10/31/2006	10:02:00	5.21E+03			1112	1013
9522-03-SC-00-07-0	10/31/2006	10:06:00	5.54E+03	6.24E+03		1112	1013
9522-03-ER-00-07-1	10/31/2006	13:17:00	7.66E+03	6.24E+03	+	1112	1013
9522-03-ER-00-07-2	10/31/2006	13:18:00	8.28E+03	6.24E+03	+	1112	1013
9522-03-BC-00-08-0	10/31/2006	10:07:00	7.03E+03			1112	1013
9522-03-SC-00-08-0	10/31/2006	10:08:00	7.23E+03	8.23E+03		1112	1013
9522-03-BC-00-09-0	10/31/2006	10:10:00	7.09E+03			1112	1013
9522-03-SC-00-09-0	10/31/2006	10:11:00	6.62E+03	8.29E+03		1112	1013
9522-03-BC-00-10-0	10/31/2006	10:11:00	7.80E+03			1112	1013
9522-03-SC-00-10-0	10/31/2006	10:12:00	6.75E+03	9.06E+03		1112	1013
9522-03-BC-00-11-0	10/31/2006	10:13:00	6.59E+03			1112	1013
9522-03-SC-00-11-0	10/31/2006	10:15:00	7.38E+03	7.75E+03		1112	1013
9522-03-BC-00-12-0	10/31/2006	10:16:00	7.15E+03			1112	1013
9522-03-SC-00-12-0	10/31/2006	10:17:00	6.76E+03	8.36E+03		1112	1013
9522-03-BC-00-13-0	10/31/2006	10:18:00	6.57E+03			1112	1013
9522-03-SC-00-13-0	10/31/2006	10:21:00	7.67E+03	7.73E+03		1112	1013
9522-03-BC-00-14-0	10/31/2006	10:21:00	7.80E+03			1112	1013
9522-03-SC-00-14-0	10/31/2006	10:23:00	7.63E+03	9.06E+03		1112	1013
9522-03-BC-00-15-0	10/31/2006	10:24:00	7.18E+03			1112	1013
9522-03-SC-00-15-0	10/31/2006	10:27:00	7.52E+03	8.39E+03		1112	1013
9522-03-BC-00-16-0	10/31/2006	10:27:00	8.96E+03			1112	1013
9522-03-SC-00-16-0	10/31/2006	10:29:00	6.63E+03	1.03E+04		1112	1013
9522-03-BC-00-17-0	10/31/2006	10:30:00	6.86E+03			1112	1013
9522-03-SC-00-17-0	10/31/2006	10:35:00	7.93E+03	8.04E+03		1112	1013
9522-03-ER-00-17-2	10/31/2006	13:35:00	9.11E+03	8.04E+03	+	1112	1013
9522-03-ER-00-17-3	10/31/2006	13:36:00	9.53E+03	8.04E+03	+	1112	1013
9522-03-BC-00-18-0	10/31/2006	10:36:00	9.02E+03			1112	1013
9522-03-SC-00-18-0	10/31/2006	10:37:00	7.61E+03	1.04E+04		1112	1013
9522-03-BC-00-19-0	10/31/2006	10:39:00	7.72E+03			1112	1013
9522-03-SC-00-19-0	10/31/2006	10:41:00	8.39E+03	8.97E+03		1112	1013
9522-03-BC-00-20-0	10/31/2006	10:42:00	8.56E+03			1112	1013
9522-03-SC-00-20-0	10/31/2006	10:43:00	7.98E+03	9.88E+03		1112	1013
9522-03-BC-00-21-0	10/31/2006	10:50:00	1.01E+04			1114	1014
9522-03-SC-00-21-0	10/31/2006	10:54:00	9.19E+03	1.15E+04		1114	1014

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0003

RELEASE RECORD
Attachment 2

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-03-BC-00-22-0	10/31/2006	10:37:00	8.88E+03			1114	1014
9522-03-SC-00-22-0	10/31/2006	10:46:00	9.52E+03	1.02E+04		1114	1014
9522-03-ER-00-22-1	10/31/2006	13:37:00	9.79E+03	1.02E+04		1112	1013
9522-03-ER-00-22-2	10/31/2006	13:37:00	2.87E+04	1.02E+04	+	1112	1013
9522-03-BC-00-23-0	10/31/2006	10:31:00	1.06E+04			1114	1014
9522-03-SC-00-23-0	10/31/2006	10:35:00	9.41E+03	1.21E+04		1114	1014
9522-03-ER-00-23-1	10/31/2006	13:52:00	1.44E+04	1.21E+04	+	1114	1014
9522-03-BC-00-24-0	10/31/2006	10:22:00	9.51E+03			1114	1014
9522-03-SC-00-24-0	10/31/2006	10:30:00	9.79E+03	1.09E+04		1114	1014
9522-03-ER-00-24-1	10/31/2006	13:53:00	1.06E+04	1.09E+04		1114	1014
9522-03-BC-00-25-0	10/31/2006	10:52:00	6.76E+03			1112	1013
9522-03-SC-00-25-0	10/31/2006	10:53:00	5.39E+03	7.93E+03		1112	1013
9522-03-BC-00-26-0	10/31/2006	10:54:00	7.34E+03			1112	1013
9522-03-SC-00-26-0	10/31/2006	10:55:00	6.05E+03	8.56E+03		1112	1013
9522-03-BC-00-27-0	10/31/2006	10:56:00	7.27E+03			1112	1013
9522-03-SC-00-27-0	10/31/2006	10:56:00	5.64E+03	8.49E+03		1112	1013
9522-03-BC-00-28-0	10/31/2006	10:57:00	7.23E+03			1112	1013
9522-03-SC-00-28-0	10/31/2006	10:58:00	5.45E+03	8.44E+03		1112	1013
9522-03-BC-00-29-0	11/6/2006	13:10:00	6.70E+03			1112	1013
9522-03-SC-00-29-0	11/6/2006	13:13:00	5.33E+03	7.87E+03		1112	1013
9522-03-BC-00-30-0	11/6/2006	13:14:00	6.77E+03			1112	1013
9522-03-SC-00-30-0	11/6/2006	13:17:00	7.03E+03	7.94E+03		1112	1013
9522-03-BC-00-31-0	11/6/2006	13:18:00	6.56E+03			1112	1013
9522-03-SC-00-31-0	11/6/2006	13:19:00	6.25E+03	7.72E+03		1112	1013
9522-03-BC-00-32-0	11/6/2006	13:20:00	6.22E+03			1112	1013
9522-03-SC-00-32-0	11/6/2006	13:22:00	6.71E+03	7.35E+03		1112	1013
9522-03-ER-00-32-1	11/6/2006	14:30:00	6.84E+03	7.35E+03		1112	1013
9522-03-BC-00-33-0	11/6/2006	13:24:00	7.04E+03			1112	1013
9522-03-SC-00-33-0	11/6/2006	13:26:00	6.86E+03	8.24E+03		1112	1013
9522-03-BC-00-34-0	11/6/2006	13:29:00	6.01E+03			1112	1013
9522-03-SC-00-34-0	11/6/2006	13:34:00	6.96E+03	7.12E+03		1112	1013
9522-03-ER-00-34-1	11/6/2006	14:31:00	7.01E+03	7.12E+03		1112	1013
9522-03-BC-00-35-0	11/6/2006	13:35:00	6.43E+03			1112	1013
9522-03-SC-00-35-0	11/6/2006	13:38:00	6.84E+03	7.58E+03		1112	1013
9522-03-BC-00-36-0	11/6/2006	13:43:00	6.83E+03			1112	1013
9522-03-SC-00-36-0	11/6/2006	13:44:00	7.03E+03	8.01E+03		1112	1013
9522-03-BC-00-37-0	10/27/2006	8:34:00	8.88E+03			1107	1003
9522-03-SC-00-37-0	10/27/2006	8:36:00	8.39E+03	1.02E+04		1107	1003
9522-03-ER-00-37-1	10/27/2006	13:00:00	1.08E+04	1.02E+04	+	1107	1003
9522-03-BC-00-38-0	10/27/2006	8:37:00	8.50E+03			1107	1003
9522-03-SC-00-38-0	10/27/2006	8:40:00	9.36E+03	9.82E+03		1107	1003
9522-03-BC-00-39-0	10/27/2006	9:44:00	8.97E+03			1107	1003
9522-03-SC-00-39-0	10/27/2006	9:46:00	8.00E+03	1.03E+04		1107	1003
9522-03-BC-00-40-0	10/27/2006	9:47:00	8.76E+03			1107	1003
9522-03-SC-00-40-0	10/27/2006	9:51:00	8.78E+03	1.01E+04		1107	1003
9522-03-ER-00-40-1	10/27/2006	13:18:00	1.11E+04	1.01E+04	+	1107	1003
9522-03-BC-00-41-0	10/27/2006	9:54:00	9.05E+03			1107	1003
9522-03-SC-00-41-0	10/27/2006	9:57:00	8.49E+03	1.04E+04		1107	1003

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0003

RELEASE RECORD
Attachment 2

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-03-BC-00-42-0	10/27/2006	9:58:00	8.66E+03			1107	1003
9522-03-SC-00-42-0	10/27/2006	10:02:00	8.04E+03	9.99E+03		1107	1003
9522-03-ER-00-42-1	10/27/2006	13:32:00	1.05E+04			1107	1003
9522-03-BC-00-43-0	10/27/2006	10:04:00	8.88E+03			1107	1003
9522-03-SC-00-43-0	10/27/2006	10:07:00	8.49E+03	1.02E+04		1107	1003
9522-03-BC-00-44-0	10/27/2006	10:08:00	7.98E+03			1107	1003
9522-03-SC-00-44-0	10/27/2006	10:11:00	7.83E+03	9.26E+03		1107	1003
9522-03-ER-00-44-1	10/27/2006	13:39:00	1.02E+04			1107	1003
9522-03-BC-00-45-0	10/27/2006	10:13:00	8.05E+03			1107	1003
9522-03-SC-00-45-0	10/27/2006	10:16:00	8.29E+03	9.33E+03		1107	1003
9522-03-BC-00-46-0	10/27/2006	10:17:00	7.78E+03			1107	1003
9522-03-SC-00-46-0	10/27/2006	10:22:00	7.97E+03	9.04E+03		1107	1003
9522-03-ER-00-46-1	10/27/2006	13:00:00	1.04E+04	9.04E+03	+	1111	1004
9522-03-BC-00-47-0	10/27/2006	10:22:00	9.47E+03			1107	1003
9522-03-SC-00-47-0	10/27/2006	10:26:00	8.93E+03	1.09E+04		1107	1003
9522-03-BC-00-48-0	10/27/2006	10:27:00	8.61E+03			1107	1003
9522-03-SC-00-48-0	10/27/2006	10:29:00	9.06E+03	9.94E+03		1107	1003
9522-03-BC-00-49-0	10/27/2006	10:04:00	8.26E+03			1111	1004
9522-03-SC-00-49-0	10/27/2006	10:08:00	8.61E+03	9.56E+03		1111	1004
9522-03-ER-00-49-1	10/27/2006	13:14:00	1.17E+04	9.56E+03	+	1111	1004
9522-03-BC-00-50-0	10/27/2006	10:00:00	8.69E+03			1111	1004
9522-03-SC-00-50-0	10/27/2006	10:02:00	9.38E+03	1.00E+04		1111	1004
9522-03-BC-00-51-0	10/27/2006	9:55:00	8.49E+03			1111	1004
9522-03-SC-00-51-0	10/27/2006	9:59:00	8.67E+03	9.81E+03		1111	1004
9522-03-BC-00-52-0	10/27/2006	9:50:00	8.85E+03			1111	1004
9522-03-SC-00-52-0	10/27/2006	9:55:00	8.16E+03	1.02E+04		1111	1004
9522-03-BC-00-53-0	10/27/2006	9:44:00	8.65E+03			1111	1004
9522-03-SC-00-53-0	10/27/2006	9:48:00	8.40E+03	9.98E+03		1111	1004
9522-03-ER-00-53-1	10/27/2006	13:31:00	1.18E+04	9.98E+03	+	1111	1004
9522-03-BC-00-54-0	10/27/2006	10:22:00	8.20E+03			1111	1004
9522-03-SC-00-54-0	10/27/2006	10:23:00	6.30E+03	9.49E+03		1111	1004
9522-03-BC-00-55-0	10/27/2006	10:24:00	8.02E+03			1111	1004
9522-03-SC-00-55-0	10/27/2006	10:25:00	6.47E+03	9.30E+03		1111	1004
9522-03-BC-00-56-0	10/27/2006	10:27:00	8.41E+03			1111	1004
9522-03-SC-00-56-0	10/27/2006	10:28:00	7.43E+03	9.72E+03		1111	1004
9522-03-BC-00-57-0	10/27/2006	10:30:00	7.78E+03			1111	1004
9522-03-SC-00-57-0	10/27/2006	10:31:00	8.64E+03	9.04E+03		1111	1004
9522-03-BC-00-58-0	10/27/2006	10:31:00	8.79E+03			1111	1004
9522-03-SC-00-58-0	10/27/2006	10:32:00	7.60E+03	1.01E+04		1111	1004
9522-03-BC-00-59-0	10/27/2006	10:32:00	8.68E+03			1111	1004
9522-03-SC-00-59-0	10/27/2006	10:34:00	9.27E+03	1.00E+04		1111	1004
9522-03-BC-00-60-0	10/27/2006	10:35:00	7.70E+03			1111	1004
9522-03-SC-00-60-0	10/27/2006	10:36:00	8.26E+03	8.95E+03		1111	1004
9522-03-BC-00-61-0	10/27/2006	10:36:00	8.56E+03			1111	1004
9522-03-SC-00-61-0	10/27/2006	10:37:00	8.92E+03	9.88E+03		1111	1004
9522-03-BC-00-62-0	10/27/2006	10:38:00	7.72E+03			1111	1004
9522-03-SC-00-62-0	10/27/2006	10:39:00	7.77E+03	8.97E+03		1111	1004

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0003

RELEASE RECORD
Attachment 2

Survey Location	Log Date	Log Time	Reading	Alarm Level	>Alarm Level	E-600 S/N	Probe S/N
9522-03-BC-00-63-0	10/27/2006	10:39:00	7.86E+03			1111	1004
9522-03-SC-00-63-0	10/27/2006	10:40:00	7.55E+03	9.13E+03		1111	1004
9522-03-BC-00-64-0	11/7/2006	7:49:00	5.72E+03			1112	1013
9522-03-SC-00-64-0	11/7/2006	7:53:00	6.19E+03	6.80E+03		1112	1013
9522-03-BC-00-65-0	11/20/2006	9:53:00	6.09E+03			1114	1014
9522-03-SC-00-65-0	11/20/2006	9:58:00	6.25E+03	7.20E+03		1114	1014
9522-03-ER-00-65-1	11/20/2006	13:56:00	7.85E+03	7.20E+03	+	1114	1014
9522-03-BC-00-66-0	11/20/2006	9:59:00	7.64E+03			1114	1014
9522-03-SC-00-66-0	11/20/2006	10:01:00	5.71E+03	8.89E+03		1114	1014
9522-03-BC-00-67-0	11/20/2006	10:03:00	7.21E+03			1114	1014
9522-03-SC-00-67-0	11/20/2006	10:05:00	7.85E+03	8.42E+03		1114	1014
9522-03-BC-00-68-0	11/20/2006	10:05:00	7.59E+03			1114	1014
9522-03-SC-00-68-0	11/20/2006	10:07:00	7.66E+03	8.83E+03		1114	1014
9522-03-BC-00-69-0	11/20/2006	10:08:00	7.79E+03			1114	1014
9522-03-SC-00-69-0	11/20/2006	10:10:00	6.60E+03	9.05E+03		1114	1014
9522-03-BC-00-70-0	11/20/2006	10:10:00	6.57E+03			1114	1014
9522-03-SC-00-70-0	11/20/2006	10:12:00	7.42E+03	7.73E+03		1114	1014
9522-03-BC-00-71-0	11/20/2006	10:12:00	7.72E+03			1114	1014
9522-03-SC-00-71-0	11/20/2006	10:14:00	7.66E+03	8.97E+03		1114	1014
9522-03-BC-00-72-0	11/20/2006	10:14:00	7.76E+03			1114	1014
9522-03-SC-00-72-0	11/20/2006	10:16:00	7.60E+03	9.02E+03		1114	1014
9522-03-BC-00-73-0	11/20/2006	10:17:00	7.43E+03			1114	1014
9522-03-SC-00-73-0	11/20/2006	10:19:00	7.09E+03	8.66E+03		1114	1014
9522-03-BC-00-74-0	11/20/2006	10:19:00	7.92E+03			1114	1014
9522-03-SC-00-74-0	11/20/2006	10:22:00	8.37E+03	9.19E+03		1114	1014
9522-03-BC-00-75-0	11/20/2006	10:22:00	7.71E+03			1114	1014
9522-03-SC-00-75-0	11/20/2006	10:25:00	8.33E+03	8.96E+03		1114	1014
9522-03-BC-00-76-0	11/20/2006	10:26:00	6.61E+03			1114	1014
9522-03-SC-00-76-0	11/20/2006	10:30:00	7.17E+03	7.77E+03		1114	1014

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)
SURVEY UNIT 9522-0003

RELEASE RECORD

ATTACHMENT 3 (LABORATORY DATA)

General Narrative

**General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 175874 and 175901
SDG: MSR#06-1459**

November 16, 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:

<u>Laboratory Identification</u>	<u>Sample Description</u>
175874001	9522-0003-017-I
175874002	9522-0003-018-I
175874003	9522-0003-019-I
175874004	9522-0003-020-I
175874005	9522-0003-021-I
175874006	9522-0003-022-I
175874007	9522-0003-023-I
175874008	9522-0003-024-I
175874009	9522-0003-025-I
175874010	9522-0003-001F
175874011	9522-0003-002F
175874012	9522-0003-003F
175874013	9522-0003-005F

175874014	9522-0003-004F
175874015	9522-0003-007F
175874016	9522-0003-008F
175874017	9522-0003-008FS
175874018	9522-0003-009F
175874019	9522-0003-011F
175874020	9522-0003-010F
175874021	9522-0003-012F
175874022	9522-0003-014F
175874023	9522-0003-015F
175874024	9522-0003-013F
175874025	9522-0003-026-I
175874026	9522-0003-027-I
175874027	9522-0003-028-I
175874028	9522-0003-029-I
175874029	9522-0003-030-I
175874030	9522-0003-031-I
175874031	9522-0003-032-I
175874032	9522-0003-033-I
175874033	9522-0003-034-I
175901001	9522-0003-006F
175901002	9522-0003-016F

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.

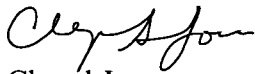
Analytical Request

Thirty-three 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 16 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. 2006-00651

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

Project Name: Haddam Neck Decommissioning						Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments:		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.															
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code							Comment, Preservation	Lab Sample ID		
9522-0003-017-I	10/31/06	1315	TS	G	BP	X									
9522-0003-018-I	10/31/06	1317	TS	G	BP	X									
9522-0003-019-Y	10/31/06	1318	TS	G	BP	X									
9522-0003-020-I	10/31/06	1335	TS	G	BP	X									
9522-0003-021-I	10/31/06	1336	TS	G	BP	X									
9522-0003-022-I	10/31/06	1337	TS	G	BP	X									
9522-0003-023-I	10/31/06	1339	TS	G	BP	X									
9522-0003-024-I	10/31/06	1353	TS	G	BP	X									
9522-0003-025-I	10/31/06	1354	TS	G	BP	X									
NOTES: PO #: 002332 MSR #: 06- 1381 1459 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 18° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>[Signature]</i>			Date/Time 11/9/06 0800			2) Received By <i>Tan Sudo</i>			Date/Time 11-9-06 9:15			Bill of Lading # 7985 38914990			
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. 2006-00655

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: <i>Off 11/14/06</i> 175874 - FSSALL FSSGAM 175901 - FSSGAM FSSALL	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9522-0003-001F	11/13/06	1255	TS	G	BP	X								
9522-0003-002F	11/13/06	1256	TS	G	BP	X								
9522-0003-003F	11/13/06	1300	TS	G	BP	X								
9522-0003-005F	11/13/06	1302	TS	G	BP	X								
9522-0003-004F	11/13/06	1312	TS	G	BP	X								
9522-0003-006F	11/13/06	1314	TS	G	BP	X	X							
9522-0003-007F	11/13/06	1316	TS	G	BP	X								
9522-0003-008F	11/13/06	1318	TS	G	BP	X								
9522-0003-008FS	11/13/06	1318	TS	G	BP	X								
NOTES: PO #: 002332 MSR #: 06-1381-20 ^{11/14} ₁₄₅₉ SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA														
1) Relinquished By <i>John J. O'Neil</i>			Date/Time 11/9/06 0800			2) Received By <i>Tan S. Lee</i>			Date/Time 11-10-06 9:15			Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		
3) Relinquished By			Date/Time			4) Received By			Date/Time			Internal Container Temp.: 18° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Bill of Lading # 7985 3691 5025		

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00656

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: 175874 - FSSGAM 175901 - FSSALL	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.														
Sample Designation	Date	Time										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 <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 18° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By: <i>[Signature]</i>			Date/Time: 11/9/06 0800		2) Received By: <i>Tan [Signature]</i>			Date/Time: 11-10-06 9:15			7985 3891 5025 Bill of Lading #			
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. 2006-00657

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: 1758741.	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.														
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID	
9522-0003-026-I	10/27/06	1300	TS	G	BP	X								
9522-0003-027-I	10/27/06	1319	TS	G	BP	X								
9522-0003-028-I	10/27/06	1334	TS	G	BP	X								
9522-0003-029-I	10/27/06	1340	TS	G	BP	X								
9522-0003-030-I	10/27/06	1301	TS	G	BP	X								
9522-0003-031-I	10/27/06	1314	TS	G	BP	X								
9522-0003-032-I	10/27/06	1330	TS	G	BP	X								
NOTES: PO #: 002332 MSR #: 06-1381 ^{NO} 1459 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 18° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>[Signature]</i> Date/Time 11/9/06 0800			2) Received By <i>Tam Siro</i> Date/Time 11-10-06 9:15			3) Relinquished By Date/Time			4) Received By Date/Time			798538914990 Bill of Lading #		

10 • • •

Chain of Custody Form

No. 2006-00659

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

Project Name: Haddam Neck Decommissioning						Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments:		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.															
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code							Comment, Preservation	Lab Sample ID		
9522-0003-033-I	11/06/06	1430	TS	G	BP	X									
9522-0003-034-I	11/06/06	1431	TS	G	BP	X									
NOTES: PO #: 002332 MSR #: 06-1381- <i>1459</i> SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: <u>18°</u> Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>[Signature]</i> Date/Time <i>11/9/06 0800</i>			2) Received By <i>Tam [Signature]</i> Date/Time <i>11-10-06 9:15</i>			Bill of Lading # <i>798538914990</i>									
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 #06-1459

Work Order Number: 175874, 175901

Shipping Container ID: 79853891 4990 Chain of Custody #: 2006-00651, 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 18°
5. Vermiculite/packing materials is: Wet ☐ Dry ☐ NAD
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: Tara Sub Date: 11-10-06 9:15

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCO/Work Order: <u>175874, 175901</u>
Date Received: <u>11-10-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>TS</u>	<i>[Signature]</i>

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 descri
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				<u>COC# - 2006-00657, 00659, 00651</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?	<input checked="" type="checkbox"/>			*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>70 cpm</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Comments:
				Hazard Class Shipped:
				UN#:
PM (or PMA) review of Hazard classification: <input checked="" type="checkbox"/>				Initials <u>CAJ</u> Date: <u>11/14/06</u>

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15
SDG#: MSR #06-1459
Work Order Number: 175874, 175901
Shipping Container ID: 7985 3891 5005 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: Tar Suth Date: 11-10-06

Telephoned to: _____ On _____ By _____

70 CPM



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCOC/Work Order: <u>175874, 175901</u>
Date Received: <u>11-10-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>TS</u>	<u>[Signature]</u>

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				<u>COC # - 2006-00655, 00656</u>

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?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>70 cpm</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			Comments:
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
PM (or PMA) review of Hazard classification: <input checked="" type="checkbox"/>				Initials <u>CAJ</u> Date: <u>11/14/06</u>

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 175874**

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: 587666
Prep Batch Number: 587479

Sample ID	Client ID
175874001	9522-0003-017-I
175874002	9522-0003-018-I
175874003	9522-0003-019-I
175874004	9522-0003-020-I
175874005	9522-0003-021-I
175874006	9522-0003-022-I
175874007	9522-0003-023-I
175874008	9522-0003-024-I
175874009	9522-0003-025-I
175874010	9522-0003-001F
175874011	9522-0003-002F
175874012	9522-0003-003F
175874013	9522-0003-005F
175874014	9522-0003-004F
175874015	9522-0003-007F
175874016	9522-0003-008F
175874017	9522-0003-008FS
175874018	9522-0003-009F
175874019	9522-0003-011F
175874020	9522-0003-010F
1201227489	Method Blank (MB)
1201227490	175874001(9522-0003-017-I) Sample Duplicate (DUP)
1201227491	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: 175874001 (9522-0003-017-I).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Europium-155	175874010
		Manganese-54	175874011
UI	Data rejected due to low abundance.	Cesium-134	175874001
			175874002
			175874004
			175874006
			175874007
			175874008
			175874010
			175874012
			175874013
			175874014
			175874015
			175874017
			175874019
			175874020
		Europium-155	175874012

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: 587872

Prep Batch Number: 587480

Sample ID	Client ID
175874021	9522-0003-012F
175874022	9522-0003-014F
175874023	9522-0003-015F
175874024	9522-0003-013F
175874025	9522-0003-026-I
175874026	9522-0003-027-I
175874027	9522-0003-028-I
175874028	9522-0003-029-I
175874029	9522-0003-030-I
175874030	9522-0003-031-I
175874031	9522-0003-032-I
175874032	9522-0003-033-I
175874033	9522-0003-034-I
1201227991	Method Blank (MB)
1201227992	175874021(9522-0003-012F) Sample Duplicate (DUP)
1201227993	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: 175874021 (9522-0003-012F).

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 1201227993 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

The duplicate and sample 1201227992 (9522-0003-012F) and 175874021 (9522-0003-012F) did not meet the relative percent difference requirement for TI-208, however, they do meet the relative error ratio requirement with a value of 1.7274.

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 A. Auer 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#06-1459 GEL Work Order: 175874

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.



Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-017-I
Sample ID: 175874001
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 8.88%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.688	+/-0.133	0.0423	+/-0.133	0.0906	pCi/g		MJH1	11/14/06	1213	587666
Americium-241	U	-0.0488	+/-0.093	0.0789	+/-0.093	0.163	pCi/g					
Bismuth-212		0.551	+/-0.227	0.0983	+/-0.227	0.208	pCi/g					
Bismuth-214		0.539	+/-0.0745	0.0262	+/-0.0745	0.055	pCi/g					
Cesium-134	UI	0.00	+/-0.0254	0.0179	+/-0.0254	0.0376	pCi/g					
Cesium-137		0.0888	+/-0.0241	0.013	+/-0.0241	0.0275	pCi/g					
Cobalt-60	U	0.00545	+/-0.0171	0.0152	+/-0.0171	0.0326	pCi/g					
Europium-152	U	-0.0348	+/-0.0392	0.0336	+/-0.0392	0.0703	pCi/g					
Europium-154	U	-0.0578	+/-0.0437	0.033	+/-0.0437	0.072	pCi/g					
Europium-155	U	0.0298	+/-0.0496	0.047	+/-0.0496	0.0969	pCi/g					
Lead-212		0.713	+/-0.0506	0.0211	+/-0.0506	0.0438	pCi/g					
Lead-214		0.576	+/-0.0753	0.0237	+/-0.0753	0.0497	pCi/g					
Manganese-54	U	0.018	+/-0.016	0.0149	+/-0.016	0.0313	pCi/g					
Niobium-94	U	0.00958	+/-0.0132	0.0122	+/-0.0132	0.0258	pCi/g					
Potassium-40		10.9	+/-0.645	0.0994	+/-0.645	0.221	pCi/g					
Radium-226		0.539	+/-0.0745	0.0262	+/-0.0745	0.055	pCi/g					
Silver-108m	U	-0.00538	+/-0.0128	0.011	+/-0.0128	0.0232	pCi/g					
Thallium-208		0.229	+/-0.0326	0.0128	+/-0.0326	0.027	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-017-I
Sample ID: 175874001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-018-I
Sample ID: 175874002
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 8.13%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.717	+/-0.0962	0.0437	+/-0.0962	0.0927	pCi/g		MJH1	11/14/06	1214	587666
Americium-241	U	0.043	+/-0.0572	0.051	+/-0.0572	0.105	pCi/g					
Bismuth-212		0.342	+/-0.176	0.092	+/-0.176	0.194	pCi/g					
Bismuth-214		0.510	+/-0.0686	0.0231	+/-0.0686	0.0485	pCi/g					
Cesium-134	UI	0.00	+/-0.0196	0.0168	+/-0.0196	0.0352	pCi/g					
Cesium-137		0.039	+/-0.0201	0.013	+/-0.0201	0.0274	pCi/g					
Cobalt-60	U	0.000734	+/-0.0131	0.0114	+/-0.0131	0.0246	pCi/g					
Europium-152	U	-0.0155	+/-0.0394	0.0339	+/-0.0394	0.0706	pCi/g					
Europium-154	U	0.00782	+/-0.0441	0.0388	+/-0.0441	0.0827	pCi/g					
Europium-155	U	0.063	+/-0.0456	0.0408	+/-0.0456	0.0839	pCi/g					
Lead-212		0.702	+/-0.0461	0.0201	+/-0.0461	0.0415	pCi/g					
Lead-214		0.603	+/-0.0607	0.0245	+/-0.0607	0.051	pCi/g					
Manganese-54	U	-0.000348	+/-0.0151	0.0132	+/-0.0151	0.0279	pCi/g					
Niobium-94	U	0.0102	+/-0.0145	0.0129	+/-0.0145	0.027	pCi/g					
Potassium-40		10.7	+/-0.590	0.098	+/-0.590	0.215	pCi/g					
Radium-226		0.510	+/-0.0686	0.0231	+/-0.0686	0.0485	pCi/g					
Silver-108m	U	0.000891	+/-0.0127	0.0115	+/-0.0127	0.024	pCi/g					
Thallium-208		0.216	+/-0.0266	0.0126	+/-0.0266	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-018-I
Sample ID: 175874002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-019-I
Sample ID: 175874003
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 3.14%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.443	+/-0.128	0.0474	+/-0.128	0.102	pCi/g		MJH1	11/14/06	1840	587666
Americium-241	U	0.00582	+/-0.0645	0.0587	+/-0.0645	0.121	pCi/g					
Bismuth-212		0.473	+/-0.220	0.102	+/-0.220	0.218	pCi/g					
Bismuth-214		0.422	+/-0.0753	0.0264	+/-0.0753	0.0559	pCi/g					
Cesium-134	U	0.0389	+/-0.0263	0.0193	+/-0.0263	0.0407	pCi/g					
Cesium-137	U	0.024	+/-0.0345	0.0143	+/-0.0345	0.0304	pCi/g					
Cobalt-60	U	0.00719	+/-0.0161	0.0146	+/-0.0161	0.032	pCi/g					
Europium-152	U	-0.0313	+/-0.0438	0.0368	+/-0.0438	0.0771	pCi/g					
Europium-154	U	0.000713	+/-0.0525	0.0457	+/-0.0525	0.099	pCi/g					
Europium-155	U	0.0296	+/-0.041	0.0405	+/-0.041	0.0835	pCi/g					
Lead-212		0.496	+/-0.047	0.0221	+/-0.047	0.0458	pCi/g					
Lead-214		0.495	+/-0.0738	0.0259	+/-0.0738	0.0543	pCi/g					
Manganese-54	U	0.00281	+/-0.0233	0.0146	+/-0.0233	0.0311	pCi/g					
Niobium-94	U	0.000558	+/-0.0129	0.0114	+/-0.0129	0.0244	pCi/g					
Potassium-40		10.3	+/-0.714	0.122	+/-0.714	0.272	pCi/g					
Radium-226		0.422	+/-0.0753	0.0264	+/-0.0753	0.0559	pCi/g					
Silver-108m	U	-0.0108	+/-0.0144	0.0116	+/-0.0144	0.0246	pCi/g					
Thallium-208		0.151	+/-0.0358	0.0139	+/-0.0358	0.0294	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522–0003–019–I
Sample ID: 175874003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-020-I
Sample ID: 175874004
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 7.21%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.782	+/-0.143	0.0499	+/-0.143	0.107	pCi/g		MJH1	11/14/06	1841	587666
Americium-241	U	0.00236	+/-0.0732	0.0641	+/-0.0732	0.132	pCi/g					
Bismuth-212		0.386	+/-0.161	0.0903	+/-0.161	0.194	pCi/g					
Bismuth-214		0.517	+/-0.0734	0.0258	+/-0.0734	0.0546	pCi/g					
Cesium-134	UI	0.00	+/-0.0339	0.0204	+/-0.0339	0.0429	pCi/g					
Cesium-137		0.0495	+/-0.0302	0.0146	+/-0.0302	0.0309	pCi/g					
Cobalt-60	U	0.00993	+/-0.0182	0.0163	+/-0.0182	0.0353	pCi/g					
Europium-152	U	-0.0339	+/-0.0425	0.0346	+/-0.0425	0.0724	pCi/g					
Europium-154	U	0.00281	+/-0.0515	0.0443	+/-0.0515	0.0957	pCi/g					
Europium-155	U	0.0852	+/-0.0458	0.0454	+/-0.0458	0.0932	pCi/g					
Lead-212		0.776	+/-0.0477	0.0197	+/-0.0477	0.0408	pCi/g					
Lead-214		0.594	+/-0.0637	0.027	+/-0.0637	0.0562	pCi/g					
Manganese-54	U	0.00229	+/-0.0169	0.0144	+/-0.0169	0.0307	pCi/g					
Niobium-94	U	0.0106	+/-0.0149	0.0134	+/-0.0149	0.0284	pCi/g					
Potassium-40		12.9	+/-0.756	0.114	+/-0.756	0.254	pCi/g					
Radium-226		0.517	+/-0.0734	0.0258	+/-0.0734	0.0546	pCi/g					
Silver-108m	U	0.00907	+/-0.0134	0.0125	+/-0.0134	0.0263	pCi/g					
Thallium-208		0.244	+/-0.0389	0.0135	+/-0.0389	0.0285	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	1251	587479

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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-020-I
Sample ID: 175874004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-021-I
Sample ID: 175874005
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 7.52%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.742	+/-0.126	0.052	+/-0.126	0.111	pCi/g		MJH1	11/14/06	1841	587666	
Americium-241	U	0.0408	+/-0.0832	0.0705	+/-0.0832	0.144	pCi/g						
Bismuth-212		0.635	+/-0.239	0.116	+/-0.239	0.244	pCi/g						
Bismuth-214		0.625	+/-0.0744	0.028	+/-0.0744	0.0589	pCi/g						
Cesium-134	U	0.0393	+/-0.0237	0.0195	+/-0.0237	0.0409	pCi/g						
Cesium-137		0.0795	+/-0.0328	0.0143	+/-0.0328	0.0302	pCi/g						
Cobalt-60	U	0.011	+/-0.021	0.0183	+/-0.021	0.0392	pCi/g						
Europium-152	U	-0.0331	+/-0.0477	0.0397	+/-0.0477	0.0827	pCi/g						
Europium-154	U	0.0081	+/-0.0535	0.0452	+/-0.0535	0.0974	pCi/g						
Europium-155	U	0.057	+/-0.0562	0.0433	+/-0.0562	0.089	pCi/g						
Lead-212		0.801	+/-0.0527	0.0248	+/-0.0527	0.051	pCi/g						
Lead-214		0.698	+/-0.0787	0.0306	+/-0.0787	0.0636	pCi/g						
Manganese-54	U	-0.0138	+/-0.0179	0.0146	+/-0.0179	0.0309	pCi/g						
Niobium-94	U	-0.00361	+/-0.0159	0.0137	+/-0.0159	0.0288	pCi/g						
Potassium-40		13.8	+/-0.786	0.113	+/-0.786	0.252	pCi/g						
Radium-226		0.625	+/-0.0744	0.028	+/-0.0744	0.0589	pCi/g						
Silver-108m	U	-0.00583	+/-0.0162	0.0135	+/-0.0162	0.0282	pCi/g						
Thallium-208		0.266	+/-0.0377	0.0149	+/-0.0377	0.0313	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-021-I
Sample ID: 175874005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-022-I
Sample ID: 175874006
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 17.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	A
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.05	+/-0.183	0.0638	+/-0.183	0.127	pCi/g		MJH1	11/14/06	1843	587666	
Americium-241	U	0.104	+/-0.0673	0.0556	+/-0.0673	0.111	pCi/g						
Bismuth-212		0.594	+/-0.263	0.116	+/-0.263	0.231	pCi/g						
Bismuth-214		0.775	+/-0.108	0.0311	+/-0.108	0.0622	pCi/g						
Cesium-134	UI	0.00	+/-0.0299	0.0209	+/-0.0299	0.0417	pCi/g						
Cesium-137		0.0949	+/-0.0338	0.0114	+/-0.0338	0.0227	pCi/g						
Cobalt-60	U	-0.0061	+/-0.0212	0.0172	+/-0.0212	0.0343	pCi/g						
Europium-152	U	0.00487	+/-0.0611	0.0439	+/-0.0611	0.0878	pCi/g						
Europium-154	U	0.00522	+/-0.0597	0.0433	+/-0.0597	0.0866	pCi/g						
Europium-155	U	0.0276	+/-0.0762	0.0478	+/-0.0762	0.0956	pCi/g						
Lead-212		0.933	+/-0.0918	0.0243	+/-0.0918	0.0485	pCi/g						
Lead-214		0.903	+/-0.103	0.0288	+/-0.103	0.0576	pCi/g						
Manganese-54	U	0.000889	+/-0.0187	0.0162	+/-0.0187	0.0323	pCi/g						
Niobium-94	U	0.00555	+/-0.018	0.016	+/-0.018	0.0319	pCi/g						
Potassium-40		11.8	+/-1.03	0.137	+/-1.03	0.275	pCi/g						
Radium-226		0.775	+/-0.108	0.0311	+/-0.108	0.0622	pCi/g						
Silver-108m	U	0.00184	+/-0.0166	0.0144	+/-0.0166	0.0288	pCi/g						
Thallium-208		0.328	+/-0.0556	0.0161	+/-0.0556	0.0322	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	1251	587479

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
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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: 9522-0003-022-I
Sample ID: 175874006

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-023-I
Sample ID: 175874007
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 10.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.947	+/-0.133	0.0539	+/-0.133	0.114	pCi/g		MJH1	11/14/06	1956	587666	
Americium-241	U	0.0177	+/-0.103	0.0685	+/-0.103	0.140	pCi/g						
Bismuth-212		0.899	+/-0.321	0.125	+/-0.321	0.263	pCi/g						
Bismuth-214		0.566	+/-0.0874	0.0307	+/-0.0874	0.0641	pCi/g						
Cesium-134	UI	0.00	+/-0.0281	0.0207	+/-0.0281	0.0433	pCi/g						
Cesium-137		0.183	+/-0.0486	0.0164	+/-0.0486	0.0343	pCi/g						
Cobalt-60	U	0.0227	+/-0.0212	0.0197	+/-0.0212	0.0419	pCi/g						
Europium-152	U	-0.0182	+/-0.0478	0.0402	+/-0.0478	0.0837	pCi/g						
Europium-154	U	-0.0249	+/-0.0656	0.0547	+/-0.0656	0.116	pCi/g						
Europium-155	U	0.0561	+/-0.0546	0.050	+/-0.0546	0.102	pCi/g						
Lead-212		1.00	+/-0.0591	0.0246	+/-0.0591	0.0507	pCi/g						
Lead-214		0.732	+/-0.0798	0.0306	+/-0.0798	0.0635	pCi/g						
Manganese-54	U	0.00873	+/-0.0192	0.0171	+/-0.0192	0.0359	pCi/g						
Niobium-94	U	-0.00936	+/-0.0181	0.0148	+/-0.0181	0.031	pCi/g						
Potassium-40		13.0	+/-0.866	0.141	+/-0.866	0.307	pCi/g						
Radium-226		0.566	+/-0.0874	0.0307	+/-0.0874	0.0641	pCi/g						
Silver-108m	U	0.00386	+/-0.0162	0.0146	+/-0.0162	0.0303	pCi/g						
Thallium-208		0.321	+/-0.0468	0.0159	+/-0.0468	0.0333	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	1251	587479

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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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: 9522-0003-023-I
Sample ID: 175874007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-024-I
Sample ID: 175874008
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 12.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.14	+/-0.147	0.0474	+/-0.147	0.102	pCi/g		MJH1	11/14/06	1956	587666	
Americium-241	U	0.0251	+/-0.117	0.0938	+/-0.117	0.193	pCi/g						
Bismuth-212		0.605	+/-0.251	0.113	+/-0.251	0.240	pCi/g						
Bismuth-214		0.523	+/-0.0831	0.0289	+/-0.0831	0.061	pCi/g						
Cesium-134	UI	0.00	+/-0.0255	0.0201	+/-0.0255	0.0423	pCi/g						
Cesium-137		0.228	+/-0.0381	0.0155	+/-0.0381	0.0327	pCi/g						
Cobalt-60	U	0.0229	+/-0.0227	0.0208	+/-0.0227	0.0445	pCi/g						
Europium-152	U	-0.00271	+/-0.0485	0.0408	+/-0.0485	0.0851	pCi/g						
Europium-154	U	0.0501	+/-0.0575	0.0526	+/-0.0575	0.113	pCi/g						
Europium-155	U	0.0446	+/-0.0774	0.0498	+/-0.0774	0.102	pCi/g						
Lead-212		0.992	+/-0.0591	0.0236	+/-0.0591	0.0488	pCi/g						
Lead-214		0.602	+/-0.0798	0.0272	+/-0.0798	0.0569	pCi/g						
Manganese-54	U	0.0211	+/-0.0155	0.0163	+/-0.0155	0.0346	pCi/g						
Niobium-94	U	-0.0109	+/-0.0168	0.0136	+/-0.0168	0.0289	pCi/g						
Potassium-40		13.2	+/-0.818	0.116	+/-0.818	0.261	pCi/g						
Radium-226		0.523	+/-0.0831	0.0289	+/-0.0831	0.061	pCi/g						
Silver-108m	U	0.00735	+/-0.0152	0.0139	+/-0.0152	0.0291	pCi/g						
Thallium-208		0.261	+/-0.0441	0.0153	+/-0.0441	0.0323	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	1251	587479

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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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: 9522-0003-024-I
Sample ID: 175874008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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> 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: 9522-0003-025-I
Sample ID: 175874009
Matrix: TS
Collect Date: 31-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 14.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.997	+/-0.146	0.0475	+/-0.146	0.102	pCi/g		MJH1	11/14/06	1956	587666
Americium-241	U	-0.0466	+/-0.0722	0.0663	+/-0.0722	0.136	pCi/g					
Bismuth-212		0.559	+/-0.220	0.115	+/-0.220	0.242	pCi/g					
Bismuth-214		0.662	+/-0.0821	0.0288	+/-0.0821	0.0605	pCi/g					
Cesium-134	U	0.0246	+/-0.022	0.0175	+/-0.022	0.0368	pCi/g					
Cesium-137		0.0849	+/-0.0371	0.0167	+/-0.0371	0.0351	pCi/g					
Cobalt-60	U	0.00541	+/-0.0188	0.0162	+/-0.0188	0.035	pCi/g					
Europium-152	U	-0.0121	+/-0.0431	0.0381	+/-0.0431	0.0794	pCi/g					
Europium-154	U	0.0341	+/-0.0537	0.0478	+/-0.0537	0.103	pCi/g					
Europium-155	U	0.0554	+/-0.0603	0.0424	+/-0.0603	0.0871	pCi/g					
Lead-212		0.823	+/-0.0521	0.0233	+/-0.0521	0.0481	pCi/g					
Lead-214		0.793	+/-0.0703	0.0271	+/-0.0703	0.0565	pCi/g					
Manganese-54	U	-0.00807	+/-0.0177	0.015	+/-0.0177	0.0318	pCi/g					
Niobium-94	U	0.0124	+/-0.0158	0.014	+/-0.0158	0.0295	pCi/g					
Potassium-40		11.7	+/-0.746	0.137	+/-0.746	0.300	pCi/g					
Radium-226		0.662	+/-0.0821	0.0288	+/-0.0821	0.0605	pCi/g					
Silver-108m	U	-0.00612	+/-0.0143	0.0123	+/-0.0143	0.0257	pCi/g					
Thallium-208		0.242	+/-0.0342	0.0146	+/-0.0342	0.0307	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	1251	587479

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
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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: 9522-0003-025-I
Sample ID: 175874009

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
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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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-001F
Sample ID: 175874010
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 5.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		1.34	+/-0.177	0.0699	+/-0.177	0.147	pCi/g		MJH1	11/16/06	1231	587666
Americium-241	U	0.00061	+/-0.0307	0.0282	+/-0.0307	0.0575	pCi/g					
Bismuth-212		1.05	+/-0.381	0.138	+/-0.381	0.289	pCi/g					
Bismuth-214		0.641	+/-0.0821	0.035	+/-0.0821	0.0731	pCi/g					
Cesium-134	UI	0.00	+/-0.0359	0.0263	+/-0.0359	0.0547	pCi/g					
Cesium-137	U	0.0311	+/-0.0374	0.0217	+/-0.0374	0.0451	pCi/g					
Cobalt-60	U	0.0062	+/-0.0254	0.0218	+/-0.0254	0.0464	pCi/g					
Europium-152	U	0.0123	+/-0.055	0.0483	+/-0.055	0.0999	pCi/g					
Europium-154	U	-0.00163	+/-0.0839	0.0614	+/-0.0839	0.130	pCi/g					
Europium-155	UI	0.00	+/-0.078	0.0432	+/-0.078	0.0885	pCi/g					
Lead-212		1.35	+/-0.067	0.0263	+/-0.067	0.0541	pCi/g					
Lead-214		0.790	+/-0.090	0.0325	+/-0.090	0.0675	pCi/g					
Manganese-54	U	0.0366	+/-0.0264	0.0217	+/-0.0264	0.0453	pCi/g					
Niobium-94	U	0.00136	+/-0.0221	0.0191	+/-0.0221	0.0398	pCi/g					
Potassium-40		16.1	+/-0.925	0.166	+/-0.925	0.359	pCi/g					
Radium-226		0.641	+/-0.0821	0.035	+/-0.0821	0.0731	pCi/g					
Silver-108m	U	0.0014	+/-0.019	0.0173	+/-0.019	0.036	pCi/g					
Thallium-208		0.438	+/-0.0537	0.0188	+/-0.0537	0.0392	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	1251	587479

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

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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: 9522-0003-001F
Sample ID: 175874010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-002F
Sample ID: 175874011
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 8.78%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.982	+/-0.123	0.0421	+/-0.123	0.0903	pCi/g		MJH1	11/14/06	1957	587666
Americium-241	U	0.0089	+/-0.0208	0.0193	+/-0.0208	0.0394	pCi/g					
Bismuth-212		0.578	+/-0.230	0.104	+/-0.230	0.220	pCi/g					
Bismuth-214		0.603	+/-0.071	0.0244	+/-0.071	0.0514	pCi/g					
Cesium-134	U	0.017	+/-0.0194	0.0175	+/-0.0194	0.0368	pCi/g					
Cesium-137		0.159	+/-0.0298	0.0146	+/-0.0298	0.0306	pCi/g					
Cobalt-60	U	-0.00291	+/-0.0183	0.0152	+/-0.0183	0.0328	pCi/g					
Europium-152	U	-0.0417	+/-0.0376	0.0305	+/-0.0376	0.0638	pCi/g					
Europium-154	U	-0.015	+/-0.0625	0.0446	+/-0.0625	0.0955	pCi/g					
Europium-155	U	0.0565	+/-0.0483	0.0307	+/-0.0483	0.0631	pCi/g					
Lead-212		0.986	+/-0.0483	0.0184	+/-0.0483	0.038	pCi/g					
Lead-214		0.604	+/-0.0629	0.023	+/-0.0629	0.0479	pCi/g					
Manganese-54	UI	0.00	+/-0.0221	0.0131	+/-0.0221	0.0278	pCi/g					
Niobium-94	U	0.00376	+/-0.0149	0.013	+/-0.0149	0.0274	pCi/g					
Potassium-40		12.5	+/-0.719	0.129	+/-0.719	0.282	pCi/g					
Radium-226		0.603	+/-0.071	0.0244	+/-0.071	0.0514	pCi/g					
Silver-108m	U	-0.00806	+/-0.0145	0.0112	+/-0.0145	0.0234	pCi/g					
Thallium-208		0.323	+/-0.0368	0.0117	+/-0.0368	0.0247	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-002F
Sample ID: 175874011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-003F
Sample ID: 175874012
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 19.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		1.23	+/-0.175	0.0726	+/-0.175	0.156	pCi/g		MJH1	11/14/06	1957	587666
Americium-241	U	0.0361	+/-0.0394	0.0264	+/-0.0394	0.0542	pCi/g					
Bismuth-212		0.839	+/-0.275	0.144	+/-0.275	0.309	pCi/g					
Bismuth-214		0.803	+/-0.0966	0.0343	+/-0.0966	0.0729	pCi/g					
Cesium-134	UI	0.00	+/-0.0428	0.0276	+/-0.0428	0.0583	pCi/g					
Cesium-137		0.342	+/-0.0529	0.022	+/-0.0529	0.0466	pCi/g					
Cobalt-60	U	0.0114	+/-0.0263	0.0226	+/-0.0263	0.0493	pCi/g					
Europium-152	U	0.0272	+/-0.0528	0.047	+/-0.0528	0.0985	pCi/g					
Europium-154	U	0.00586	+/-0.0812	0.0673	+/-0.0812	0.145	pCi/g					
Europium-155	UI	0.00	+/-0.0898	0.0462	+/-0.0898	0.0952	pCi/g					
Lead-212		0.966	+/-0.065	0.0261	+/-0.065	0.0542	pCi/g					
Lead-214		0.909	+/-0.0852	0.0377	+/-0.0852	0.0787	pCi/g					
Manganese-54	U	-0.0139	+/-0.0244	0.020	+/-0.0244	0.0427	pCi/g					
Niobium-94	U	-0.00862	+/-0.0199	0.0167	+/-0.0199	0.0358	pCi/g					
Potassium-40		10.9	+/-0.942	0.178	+/-0.942	0.397	pCi/g					
Radium-226		0.803	+/-0.0966	0.0343	+/-0.0966	0.0729	pCi/g					
Silver-108m	U	-0.00027	+/-0.0181	0.0153	+/-0.0181	0.0323	pCi/g					
Thallium-208		0.351	+/-0.060	0.0185	+/-0.060	0.0393	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	1251	587479

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

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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: 9522-0003-003F
Sample ID: 175874012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-005F
Sample ID: 175874013
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 9.28%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.964	+/-0.132	0.0454	+/-0.132	0.0956	pCi/g						
Americium-241	U	0.0541	+/-0.113	0.0752	+/-0.113	0.155	pCi/g						
Bismuth-212		0.824	+/-0.214	0.0974	+/-0.214	0.204	pCi/g						
Bismuth-214		0.659	+/-0.0726	0.0254	+/-0.0726	0.053	pCi/g						
Cesium-134	UI	0.00	+/-0.0327	0.0171	+/-0.0327	0.0356	pCi/g						
Cesium-137		0.0908	+/-0.0364	0.012	+/-0.0364	0.0252	pCi/g						
Cobalt-60	U	-0.0066	+/-0.0151	0.0124	+/-0.0151	0.0267	pCi/g						
Europium-152	U	0.0114	+/-0.0391	0.0349	+/-0.0391	0.0723	pCi/g						
Europium-154	U	-0.00657	+/-0.0824	0.0376	+/-0.0824	0.0802	pCi/g						
Europium-155	U	0.0482	+/-0.0626	0.0453	+/-0.0626	0.0931	pCi/g						
Lead-212		0.938	+/-0.0503	0.0219	+/-0.0503	0.0451	pCi/g						
Lead-214		0.718	+/-0.0821	0.0242	+/-0.0821	0.0502	pCi/g						
Manganese-54	U	0.00964	+/-0.0172	0.0118	+/-0.0172	0.0249	pCi/g						
Niobium-94	U	0.00143	+/-0.0138	0.0121	+/-0.0138	0.0253	pCi/g						
Potassium-40		14.5	+/-0.696	0.125	+/-0.696	0.269	pCi/g						
Radium-226		0.659	+/-0.0726	0.0254	+/-0.0726	0.053	pCi/g						
Silver-108m	U	-0.0156	+/-0.0155	0.0109	+/-0.0155	0.0227	pCi/g						
Thallium-208		0.288	+/-0.0379	0.0116	+/-0.0379	0.0244	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	1251	587479

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

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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: 9522-0003-005F
Sample ID: 175874013

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522–0003–004F
Sample ID: 175874014
Matrix: TS
Collect Date: 03–NOV–06
Receive Date: 10–NOV–06
Collector: Client
Moisture: 19.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid–FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium–228		0.959	+/-0.188	0.0544	+/-0.188	0.109	pCi/g		MJH1	11/14/06	1959	587666
Americium–241	U	0.0508	+/-0.0834	0.0678	+/-0.0834	0.136	pCi/g					
Bismuth–212		0.665	+/-0.321	0.123	+/-0.321	0.246	pCi/g					
Bismuth–214		0.804	+/-0.104	0.0302	+/-0.104	0.0604	pCi/g					
Cesium–134	UI	0.00	+/-0.0298	0.022	+/-0.0298	0.0439	pCi/g					
Cesium–137		0.0713	+/-0.0268	0.0174	+/-0.0268	0.0348	pCi/g					
Cobalt–60	U	-0.00545	+/-0.0215	0.0177	+/-0.0215	0.0353	pCi/g					
Europium–152	U	-0.00363	+/-0.0637	0.0459	+/-0.0637	0.0917	pCi/g					
Europium–154	U	-0.0562	+/-0.0703	0.0453	+/-0.0703	0.0905	pCi/g					
Europium–155	U	-0.019	+/-0.0561	0.0491	+/-0.0561	0.0982	pCi/g					
Lead–212		0.908	+/-0.0937	0.0249	+/-0.0937	0.0497	pCi/g					
Lead–214		0.878	+/-0.108	0.0322	+/-0.108	0.0643	pCi/g					
Manganese–54	U	0.0256	+/-0.0256	0.016	+/-0.0256	0.0321	pCi/g					
Niobium–94	U	0.000652	+/-0.0192	0.0162	+/-0.0192	0.0325	pCi/g					
Potassium–40		11.3	+/-0.993	0.154	+/-0.993	0.308	pCi/g					
Radium–226		0.804	+/-0.104	0.0302	+/-0.104	0.0604	pCi/g					
Silver–108m	U	-0.00299	+/-0.017	0.0138	+/-0.017	0.0276	pCi/g					
Thallium–208		0.301	+/-0.0429	0.0152	+/-0.0429	0.0304	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	1251	587479

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

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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: 9522-0003-004F
Sample ID: 175874014

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-007F
Sample ID: 175874015
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 19.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.957	+/-0.166	0.062	+/-0.166	0.136	pCi/g		MJH1	11/15/06	0641	587666	
Americium-241	U	0.111	+/-0.0868	0.0835	+/-0.0868	0.173	pCi/g						
Bismuth-212		0.958	+/-0.283	0.133	+/-0.283	0.289	pCi/g						
Bismuth-214		0.658	+/-0.106	0.034	+/-0.106	0.0728	pCi/g						
Cesium-134	UI	0.00	+/-0.0363	0.0255	+/-0.0363	0.0544	pCi/g						
Cesium-137		0.613	+/-0.0599	0.0218	+/-0.0599	0.0464	pCi/g						
Cobalt-60	U	0.0303	+/-0.0282	0.0268	+/-0.0282	0.0582	pCi/g						
Europium-152	U	-0.026	+/-0.0611	0.0494	+/-0.0611	0.104	pCi/g						
Europium-154	U	0.0155	+/-0.0695	0.0612	+/-0.0695	0.135	pCi/g						
Europium-155	U	0.031	+/-0.058	0.053	+/-0.058	0.110	pCi/g						
Lead-212		0.759	+/-0.0688	0.0304	+/-0.0688	0.0632	pCi/g						
Lead-214		0.867	+/-0.110	0.0337	+/-0.110	0.0713	pCi/g						
Manganese-54	U	0.0149	+/-0.0202	0.0178	+/-0.0202	0.0388	pCi/g						
Niobium-94	U	-0.0101	+/-0.0199	0.0161	+/-0.0199	0.0348	pCi/g						
Potassium-40		10.8	+/-0.922	0.167	+/-0.922	0.381	pCi/g						
Radium-226		0.658	+/-0.106	0.034	+/-0.106	0.0728	pCi/g						
Silver-108m	U	0.0118	+/-0.0198	0.0181	+/-0.0198	0.0383	pCi/g						
Thallium-208		0.251	+/-0.0538	0.0182	+/-0.0538	0.0391	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-007F
Sample ID: 175874015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-008F
Sample ID: 175874016
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 26.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.882	+/-0.126	0.0438	+/-0.126	0.0927	pCi/g					
Americium-241	U	0.0704	+/-0.0916	0.0546	+/-0.0916	0.112	pCi/g					
Bismuth-212		0.528	+/-0.262	0.103	+/-0.262	0.215	pCi/g					
Bismuth-214		0.682	+/-0.0774	0.0264	+/-0.0774	0.055	pCi/g					
Cesium-134	U	0.0333	+/-0.0285	0.0178	+/-0.0285	0.0371	pCi/g					
Cesium-137		0.730	+/-0.049	0.014	+/-0.049	0.0293	pCi/g					
Cobalt-60	U	0.0118	+/-0.0166	0.0149	+/-0.0166	0.0316	pCi/g					
Europium-152	U	-0.0153	+/-0.0459	0.0384	+/-0.0459	0.0793	pCi/g					
Europium-154	U	0.00495	+/-0.0534	0.0395	+/-0.0534	0.084	pCi/g					
Europium-155	U	0.038	+/-0.0584	0.0432	+/-0.0584	0.0886	pCi/g					
Lead-212		0.877	+/-0.0518	0.0217	+/-0.0518	0.0446	pCi/g					
Lead-214		0.812	+/-0.086	0.0267	+/-0.086	0.0552	pCi/g					
Manganese-54	U	-0.003	+/-0.0168	0.0143	+/-0.0168	0.0299	pCi/g					
Niobium-94	U	0.0109	+/-0.0151	0.0131	+/-0.0151	0.0273	pCi/g					
Potassium-40		11.5	+/-0.657	0.123	+/-0.657	0.264	pCi/g					
Radium-226		0.682	+/-0.0774	0.0264	+/-0.0774	0.055	pCi/g					
Silver-108m	U	-0.00438	+/-0.0148	0.0128	+/-0.0148	0.0266	pCi/g					
Thallium-208		0.264	+/-0.0368	0.0141	+/-0.0368	0.0293	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	1251	587479

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

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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: 9522-0003-008F
Sample ID: 175874016

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-008FS
Sample ID: 175874017
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 28.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.976	+/-0.201	0.0836	+/-0.201	0.181	pCi/g					
Americium-241	U	0.00812	+/-0.0349	0.0313	+/-0.0349	0.0645	pCi/g					
Bismuth-212		0.972	+/-0.424	0.173	+/-0.424	0.372	pCi/g					
Bismuth-214		0.830	+/-0.138	0.0405	+/-0.138	0.0867	pCi/g					
Cesium-134	UI	0.00	+/-0.0646	0.029	+/-0.0646	0.0621	pCi/g					
Cesium-137		1.01	+/-0.0804	0.025	+/-0.0804	0.0534	pCi/g					
Cobalt-60	U	0.0141	+/-0.0247	0.0225	+/-0.0247	0.0502	pCi/g					
Europium-152	U	-0.0644	+/-0.0651	0.0536	+/-0.0651	0.113	pCi/g					
Europium-154	U	-0.037	+/-0.079	0.0626	+/-0.079	0.140	pCi/g					
Europium-155	U	0.0524	+/-0.0752	0.0531	+/-0.0752	0.110	pCi/g					
Lead-212		0.817	+/-0.0811	0.0486	+/-0.0811	0.0999	pCi/g					
Lead-214		0.966	+/-0.126	0.0426	+/-0.126	0.0897	pCi/g					
Manganese-54	U	0.0191	+/-0.0279	0.0245	+/-0.0279	0.0526	pCi/g					
Niobium-94	U	-0.00522	+/-0.0249	0.0204	+/-0.0249	0.0438	pCi/g					
Potassium-40		11.1	+/-1.02	0.198	+/-1.02	0.449	pCi/g					
Radium-226		0.830	+/-0.138	0.0405	+/-0.138	0.0867	pCi/g					
Silver-108m	U	0.0121	+/-0.0244	0.0217	+/-0.0244	0.0458	pCi/g					
Thallium-208		0.301	+/-0.0658	0.0225	+/-0.0658	0.048	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	1251	587479

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

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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: 9522-0003-008FS
Sample ID: 175874017

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-009F
Sample ID: 175874018
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 10.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.627	+/-0.139	0.0553	+/-0.139	0.122	pCi/g		MJH1	11/15/06	0642	587666	
Americium-241	U	0.00217	+/-0.0955	0.0778	+/-0.0955	0.161	pCi/g						
Bismuth-212		0.421	+/-0.291	0.135	+/-0.291	0.291	pCi/g						
Bismuth-214		0.428	+/-0.0992	0.0354	+/-0.0992	0.0754	pCi/g						
Cesium-134	U	0.0328	+/-0.0242	0.0206	+/-0.0242	0.0444	pCi/g						
Cesium-137		0.695	+/-0.0645	0.0189	+/-0.0645	0.0405	pCi/g						
Cobalt-60	U	0.00968	+/-0.0323	0.021	+/-0.0323	0.0462	pCi/g						
Europium-152	U	0.0157	+/-0.0579	0.0509	+/-0.0579	0.107	pCi/g						
Europium-154	U	0.0101	+/-0.0629	0.0554	+/-0.0629	0.122	pCi/g						
Europium-155	U	0.0405	+/-0.0524	0.051	+/-0.0524	0.106	pCi/g						
Lead-212		0.550	+/-0.0603	0.0279	+/-0.0603	0.0581	pCi/g						
Lead-214		0.639	+/-0.0986	0.0371	+/-0.0986	0.0779	pCi/g						
Manganese-54	U	-0.00135	+/-0.0212	0.018	+/-0.0212	0.0388	pCi/g						
Niobium-94	U	0.0169	+/-0.0184	0.0173	+/-0.0184	0.037	pCi/g						
Potassium-40		10.1	+/-0.834	0.156	+/-0.834	0.356	pCi/g						
Radium-226		0.428	+/-0.0992	0.0354	+/-0.0992	0.0754	pCi/g						
Silver-108m	U	-0.00812	+/-0.0254	0.0185	+/-0.0254	0.0389	pCi/g						
Thallium-208		0.168	+/-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	1251	587479

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

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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: 9522-0003-009F
Sample ID: 175874018

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-011F
Sample ID: 175874019
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 8.03%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.661	+/-0.148	0.0551	+/-0.148	0.120	pCi/g		MJH1	11/15/06	0643	587666
Americium-241	U	0.0443	+/-0.0842	0.0756	+/-0.0842	0.157	pCi/g					
Bismuth-212		0.645	+/-0.274	0.123	+/-0.274	0.264	pCi/g					
Bismuth-214		0.614	+/-0.0939	0.0281	+/-0.0939	0.0601	pCi/g					
Cesium-134	UI	0.00	+/-0.035	0.0216	+/-0.035	0.046	pCi/g					
Cesium-137	U	0.0242	+/-0.023	0.0168	+/-0.023	0.036	pCi/g					
Cobalt-60	U	0.00998	+/-0.0165	0.0153	+/-0.0165	0.0342	pCi/g					
Europium-152	U	0.0595	+/-0.051	0.0468	+/-0.051	0.098	pCi/g					
Europium-154	U	0.0317	+/-0.0492	0.0457	+/-0.0492	0.101	pCi/g					
Europium-155	U	0.077	+/-0.0526	0.052	+/-0.0526	0.107	pCi/g					
Lead-212		0.703	+/-0.0532	0.0221	+/-0.0532	0.0463	pCi/g					
Lead-214		0.664	+/-0.078	0.0288	+/-0.078	0.0607	pCi/g					
Manganese-54	U	-0.00148	+/-0.0169	0.0141	+/-0.0169	0.0308	pCi/g					
Niobium-94	U	-0.000888	+/-0.0181	0.0155	+/-0.0181	0.0331	pCi/g					
Potassium-40		9.97	+/-0.801	0.140	+/-0.801	0.317	pCi/g					
Radium-226		0.614	+/-0.0939	0.0281	+/-0.0939	0.0601	pCi/g					
Silver-108m	U	0.0112	+/-0.0156	0.0147	+/-0.0156	0.0311	pCi/g					
Thallium-208		0.212	+/-0.0431	0.0151	+/-0.0431	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	1251	587479

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

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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: 9522-0003-011F
Sample ID: 175874019

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-010F
Sample ID: 175874020
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 4.79%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.556	+/-0.122	0.0548	+/-0.122	0.110	pCi/g		MJH1	11/15/06	0651	587666
Americium-241	U	0.0111	+/-0.0649	0.0495	+/-0.0649	0.0989	pCi/g					
Bismuth-212		0.509	+/-0.254	0.103	+/-0.254	0.206	pCi/g					
Bismuth-214		0.415	+/-0.0736	0.0241	+/-0.0736	0.0481	pCi/g					
Cesium-134	UI	0.00	+/-0.0258	0.0191	+/-0.0258	0.0382	pCi/g					
Cesium-137		0.0769	+/-0.027	0.0129	+/-0.027	0.0259	pCi/g					
Cobalt-60	U	0.0115	+/-0.0186	0.0168	+/-0.0186	0.0335	pCi/g					
Europium-152	U	0.0234	+/-0.0744	0.0403	+/-0.0744	0.0806	pCi/g					
Europium-154	U	-0.00147	+/-0.0534	0.0448	+/-0.0534	0.0896	pCi/g					
Europium-155	U	0.0194	+/-0.0504	0.0445	+/-0.0504	0.0889	pCi/g					
Lead-212		0.459	+/-0.0598	0.0235	+/-0.0598	0.0469	pCi/g					
Lead-214		0.537	+/-0.0934	0.0291	+/-0.0934	0.0582	pCi/g					
Manganese-54	U	-0.0113	+/-0.0173	0.0143	+/-0.0173	0.0285	pCi/g					
Niobium-94	U	0.00637	+/-0.0154	0.014	+/-0.0154	0.028	pCi/g					
Potassium-40		9.59	+/-0.926	0.154	+/-0.926	0.308	pCi/g					
Radium-226		0.415	+/-0.0736	0.0241	+/-0.0736	0.0481	pCi/g					
Silver-108m	U	0.00132	+/-0.0189	0.0144	+/-0.0189	0.0288	pCi/g					
Thallium-208		0.172	+/-0.0363	0.0139	+/-0.0363	0.0277	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	1251	587479

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-010F
Sample ID: 175874020

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-012F
Sample ID: 175874021
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 12.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.536	+/-0.141	0.0607	+/-0.141	0.129	pCi/g		MJH1	11/15/06	1405	587872
Americium-241	U	0.0168	+/-0.101	0.0697	+/-0.101	0.144	pCi/g					
Bismuth-212	U	0.00	+/-0.257	0.115	+/-0.257	0.245	pCi/g					
Bismuth-214		0.557	+/-0.0826	0.0294	+/-0.0826	0.0622	pCi/g					
Cesium-134	U	0.0343	+/-0.0407	0.0222	+/-0.0407	0.0467	pCi/g					
Cesium-137		0.0776	+/-0.0363	0.0174	+/-0.0363	0.0367	pCi/g					
Cobalt-60	U	-0.017	+/-0.0206	0.0162	+/-0.0206	0.0354	pCi/g					
Europium-152	U	0.00658	+/-0.0557	0.0431	+/-0.0557	0.0901	pCi/g					
Europium-154	U	-0.0388	+/-0.0611	0.0496	+/-0.0611	0.108	pCi/g					
Europium-155	U	0.0395	+/-0.0524	0.0494	+/-0.0524	0.102	pCi/g					
Lead-212		0.671	+/-0.0582	0.0268	+/-0.0582	0.0554	pCi/g					
Lead-214		0.596	+/-0.0836	0.0321	+/-0.0836	0.0671	pCi/g					
Manganese-54	U	0.00488	+/-0.0188	0.0169	+/-0.0188	0.0358	pCi/g					
Niobium-94	U	0.0161	+/-0.0167	0.0153	+/-0.0167	0.0325	pCi/g					
Potassium-40		10.2	+/-0.775	0.165	+/-0.775	0.361	pCi/g					
Radium-226		0.557	+/-0.0826	0.0294	+/-0.0826	0.0622	pCi/g					
Silver-108m	U	-0.00711	+/-0.0169	0.015	+/-0.0169	0.0314	pCi/g					
Thallium-208		0.195	+/-0.0364	0.0174	+/-0.0364	0.0367	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522–0003–012F
Sample ID: 175874021

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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> 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: 9522-0003-014F
Sample ID: 175874022
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 4.71%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.597	+/-0.119	0.0492	+/-0.119	0.107	pCi/g		MJH1	11/15/06	1406	587872
Americium-241	U	-0.00833	+/-0.103	0.085	+/-0.103	0.177	pCi/g					
Bismuth-212		0.477	+/-0.212	0.101	+/-0.212	0.218	pCi/g					
Bismuth-214		0.438	+/-0.0676	0.0283	+/-0.0676	0.0603	pCi/g					
Cesium-134	U	0.0219	+/-0.0238	0.0181	+/-0.0238	0.0387	pCi/g					
Cesium-137		0.0963	+/-0.0382	0.0134	+/-0.0382	0.029	pCi/g					
Cobalt-60	U	0.0271	+/-0.0197	0.0194	+/-0.0197	0.0422	pCi/g					
Europium-152	U	-0.0146	+/-0.0408	0.0344	+/-0.0408	0.0729	pCi/g					
Europium-154	U	0.024	+/-0.0552	0.0495	+/-0.0552	0.108	pCi/g					
Europium-155	U	0.0497	+/-0.0596	0.0466	+/-0.0596	0.0966	pCi/g					
Lead-212		0.500	+/-0.0471	0.0209	+/-0.0471	0.0436	pCi/g					
Lead-214		0.457	+/-0.0747	0.0281	+/-0.0747	0.0593	pCi/g					
Manganese-54	U	-0.00507	+/-0.0168	0.0138	+/-0.0168	0.0299	pCi/g					
Niobium-94	U	0.00457	+/-0.0157	0.0139	+/-0.0157	0.0298	pCi/g					
Potassium-40		9.26	+/-0.798	0.139	+/-0.798	0.313	pCi/g					
Radium-226		0.438	+/-0.0676	0.0283	+/-0.0676	0.0603	pCi/g					
Silver-108m	U	-0.000497	+/-0.0134	0.0122	+/-0.0134	0.026	pCi/g					
Thallium-208		0.172	+/-0.0383	0.0129	+/-0.0383	0.0278	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-014F
Sample ID: 175874022

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-015F

Sample ID: 175874023

Matrix: TS

Collect Date: 06-NOV-06

Receive Date: 10-NOV-06

Collector: Client

Moisture: 4.81%

Project: YANK01204

Client ID: YANK001

Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.540	+/-0.130	0.0552	+/-0.130	0.119	pCi/g		MJH1	11/15/06	1407	587872
Americium-241	U	-0.000254	+/-0.0221	0.0218	+/-0.0221	0.045	pCi/g					
Bismuth-212		0.552	+/-0.220	0.101	+/-0.220	0.219	pCi/g					
Bismuth-214		0.439	+/-0.0743	0.0261	+/-0.0743	0.056	pCi/g					
Cesium-134	U	0.00	+/-0.0381	0.0206	+/-0.0381	0.0438	pCi/g					
Cesium-137		0.0966	+/-0.0309	0.0165	+/-0.0309	0.0352	pCi/g					
Cobalt-60	U	0.0367	+/-0.0214	0.0216	+/-0.0214	0.0466	pCi/g					
Europium-152	U	0.00105	+/-0.0411	0.0384	+/-0.0411	0.0808	pCi/g					
Europium-154	U	-0.0953	+/-0.0575	0.0397	+/-0.0575	0.0887	pCi/g					
Europium-155	U	0.0236	+/-0.0544	0.0363	+/-0.0544	0.0752	pCi/g					
Lead-212		0.536	+/-0.0496	0.0221	+/-0.0496	0.0461	pCi/g					
Lead-214		0.394	+/-0.0676	0.0294	+/-0.0676	0.0617	pCi/g					
Manganese-54	U	0.00871	+/-0.021	0.0124	+/-0.021	0.0271	pCi/g					
Niobium-94	U	-0.00224	+/-0.0165	0.0143	+/-0.0165	0.0305	pCi/g					
Potassium-40		10.5	+/-0.765	0.131	+/-0.765	0.296	pCi/g					
Radium-226		0.439	+/-0.0743	0.0261	+/-0.0743	0.056	pCi/g					
Silver-108m	U	-0.0171	+/-0.0141	0.0117	+/-0.0141	0.025	pCi/g					
Thallium-208		0.158	+/-0.0363	0.0142	+/-0.0363	0.0304	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-015F
Sample ID: 175874023

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-013F
Sample ID: 175874024
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 14.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.717	+/-0.178	0.0555	+/-0.178	0.121	pCi/g					
Americium-241	U	0.0645	+/-0.0892	0.0778	+/-0.0892	0.161	pCi/g					
Bismuth-212		0.367	+/-0.214	0.123	+/-0.214	0.266	pCi/g					
Bismuth-214		0.641	+/-0.092	0.0326	+/-0.092	0.0694	pCi/g					
Cesium-134	U	0.00	+/-0.041	0.0169	+/-0.041	0.0366	pCi/g					
Cesium-137		0.287	+/-0.0492	0.0171	+/-0.0492	0.0367	pCi/g					
Cobalt-60	U	0.00572	+/-0.0209	0.0186	+/-0.0209	0.0411	pCi/g					
Europium-152	U	-0.00168	+/-0.0556	0.0487	+/-0.0556	0.102	pCi/g					
Europium-154	U	0.0699	+/-0.0628	0.0474	+/-0.0628	0.105	pCi/g					
Europium-155	U	0.0362	+/-0.0539	0.0534	+/-0.0539	0.110	pCi/g					
Lead-212		0.729	+/-0.058	0.0269	+/-0.058	0.0559	pCi/g					
Lead-214		0.663	+/-0.0817	0.0344	+/-0.0817	0.0721	pCi/g					
Manganese-54	U	0.0132	+/-0.0239	0.0143	+/-0.0239	0.0312	pCi/g					
Niobium-94	U	0.00505	+/-0.0179	0.0143	+/-0.0179	0.0309	pCi/g					
Potassium-40		10.3	+/-0.887	0.168	+/-0.887	0.374	pCi/g					
Radium-226		0.641	+/-0.092	0.0326	+/-0.092	0.0694	pCi/g					
Silver-108m	U	-0.00431	+/-0.0188	0.0159	+/-0.0188	0.0336	pCi/g					
Thallium-208		0.248	+/-0.0437	0.0156	+/-0.0437	0.0334	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	MXP2	11/10/06	1316	587480

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

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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: 9522-0003-013F
Sample ID: 175874024

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-026-I
Sample ID: 175874025
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 24%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.943	+/-0.150	0.0474	+/-0.150	0.103	pCi/g		MJH1	11/15/06	1408	587872
Americium-241	U	0.0875	+/-0.116	0.0709	+/-0.116	0.147	pCi/g					
Bismuth-212		0.520	+/-0.234	0.128	+/-0.234	0.273	pCi/g					
Bismuth-214		0.601	+/-0.0873	0.0291	+/-0.0873	0.0618	pCi/g					
Cesium-134	U	0.0383	+/-0.0253	0.0191	+/-0.0253	0.0407	pCi/g					
Cesium-137		0.344	+/-0.0484	0.0155	+/-0.0484	0.0331	pCi/g					
Cobalt-60	U	0.00	+/-0.0367	0.0134	+/-0.0367	0.0301	pCi/g					
Europium-152	U	0.00319	+/-0.0524	0.0406	+/-0.0524	0.0852	pCi/g					
Europium-154	U	0.0522	+/-0.0606	0.0566	+/-0.0606	0.122	pCi/g					
Europium-155	U	-0.0263	+/-0.0506	0.0476	+/-0.0506	0.0984	pCi/g					
Lead-212		0.767	+/-0.0538	0.0228	+/-0.0538	0.0474	pCi/g					
Lead-214		0.788	+/-0.0747	0.0279	+/-0.0747	0.0586	pCi/g					
Manganese-54	U	-0.00694	+/-0.0192	0.0159	+/-0.0192	0.0341	pCi/g					
Niobium-94	U	-0.00206	+/-0.0174	0.015	+/-0.0174	0.032	pCi/g					
Potassium-40		10.6	+/-0.777	0.145	+/-0.777	0.323	pCi/g					
Radium-226		0.601	+/-0.0873	0.0291	+/-0.0873	0.0618	pCi/g					
Silver-108m	U	0.0198	+/-0.0157	0.0154	+/-0.0157	0.0323	pCi/g					
Thallium-208		0.262	+/-0.0468	0.015	+/-0.0468	0.0319	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	MPX2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-026-I
Sample ID: 175874025

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-027-I

Sample ID: 175874026

Matrix: TS

Collect Date: 27-OCT-06

Receive Date: 10-NOV-06

Collector: Client

Moisture: 4.54%

Project: YANK01204

Client ID: YANK001

Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.33	+/-0.225	0.0623	+/-0.225	0.125	pCi/g		MJH1	11/15/06	1409	587872	
Americium-241	U	-0.0878	+/-0.0677	0.0624	+/-0.0677	0.125	pCi/g						
Bismuth-212		1.06	+/-0.304	0.122	+/-0.304	0.243	pCi/g						
Bismuth-214		0.661	+/-0.102	0.0309	+/-0.102	0.0618	pCi/g						
Cesium-134	U	0.00	+/-0.0361	0.0245	+/-0.0361	0.0489	pCi/g						
Cesium-137	U	0.0225	+/-0.0237	0.019	+/-0.0237	0.038	pCi/g						
Cobalt-60	U	0.000115	+/-0.020	0.017	+/-0.020	0.0339	pCi/g						
Europium-152	U	0.0694	+/-0.0554	0.046	+/-0.0554	0.092	pCi/g						
Europium-154	U	-0.0138	+/-0.067	0.056	+/-0.067	0.112	pCi/g						
Europium-155	U	0.0913	+/-0.0855	0.0531	+/-0.0855	0.106	pCi/g						
Lead-212		1.21	+/-0.117	0.0285	+/-0.117	0.057	pCi/g						
Lead-214		0.708	+/-0.103	0.0322	+/-0.103	0.0644	pCi/g						
Manganese-54	U	0.00569	+/-0.0214	0.0192	+/-0.0214	0.0384	pCi/g						
Niobium-94	U	-0.0135	+/-0.0179	0.0154	+/-0.0179	0.0308	pCi/g						
Potassium-40		17.2	+/-1.33	0.144	+/-1.33	0.288	pCi/g						
Radium-226		0.661	+/-0.102	0.0309	+/-0.102	0.0618	pCi/g						
Silver-108m	U	0.000209	+/-0.0178	0.0159	+/-0.0178	0.0318	pCi/g						
Thallium-208		0.408	+/-0.0583	0.0163	+/-0.0583	0.0326	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-027-I
Sample ID: 175874026

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-028-I
Sample ID: 175874027
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 3.59%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		1.69	+/-0.193	0.062	+/-0.193	0.133	pCi/g		MJH1	11/15/06	1535	587872
Americium-241	U	0.0911	+/-0.107	0.0948	+/-0.107	0.195	pCi/g					
Bismuth-212		1.27	+/-0.323	0.144	+/-0.323	0.305	pCi/g					
Bismuth-214		0.588	+/-0.0777	0.0342	+/-0.0777	0.0719	pCi/g					
Cesium-134	U	0.00	+/-0.0359	0.0273	+/-0.0359	0.057	pCi/g					
Cesium-137	U	0.0153	+/-0.0244	0.0199	+/-0.0244	0.0419	pCi/g					
Cobalt-60	U	-0.00178	+/-0.0263	0.0193	+/-0.0263	0.0419	pCi/g					
Europium-152	U	-0.0264	+/-0.0503	0.0428	+/-0.0503	0.0896	pCi/g					
Europium-154	U	-0.0161	+/-0.0685	0.0577	+/-0.0685	0.124	pCi/g					
Europium-155	U	0.00	+/-0.0982	0.0568	+/-0.0982	0.117	pCi/g					
Lead-212		1.66	+/-0.0741	0.0269	+/-0.0741	0.0557	pCi/g					
Lead-214		0.732	+/-0.0766	0.0313	+/-0.0766	0.0655	pCi/g					
Manganese-54	U	0.027	+/-0.0215	0.0201	+/-0.0215	0.0425	pCi/g					
Niobium-94	U	-0.00244	+/-0.0187	0.0162	+/-0.0187	0.0342	pCi/g					
Potassium-40		17.5	+/-1.02	0.151	+/-1.02	0.336	pCi/g					
Radium-226		0.588	+/-0.0777	0.0342	+/-0.0777	0.0719	pCi/g					
Silver-108m	U	0.0071	+/-0.0173	0.0163	+/-0.0173	0.0342	pCi/g					
Thallium-208		0.550	+/-0.0511	0.017	+/-0.0511	0.0359	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	MXP2	11/10/06	1316	587480

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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: November 17, 2006

Client Sample ID: 9522-0003-028-I
Sample ID: 175874027

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-029-I
Sample ID: 175874028
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 4.15%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.991	+/-0.158	0.0498	+/-0.158	0.107	pCi/g		MJH1	11/15/06	1536	587872	
Americium-241	U	0.00393	+/-0.0737	0.0724	+/-0.0737	0.149	pCi/g						
Bismuth-212		0.577	+/-0.238	0.109	+/-0.238	0.233	pCi/g						
Bismuth-214		0.526	+/-0.0724	0.0265	+/-0.0724	0.0564	pCi/g						
Cesium-134	U	0.00	+/-0.0275	0.021	+/-0.0275	0.0442	pCi/g						
Cesium-137	U	0.00	+/-0.0356	0.0156	+/-0.0356	0.0331	pCi/g						
Cobalt-60	U	0.001	+/-0.0178	0.0152	+/-0.0178	0.0334	pCi/g						
Europium-152	U	-0.0195	+/-0.0453	0.0408	+/-0.0453	0.0854	pCi/g						
Europium-154	U	0.0244	+/-0.0707	0.0544	+/-0.0707	0.117	pCi/g						
Europium-155	U	0.090	+/-0.0504	0.0506	+/-0.0504	0.104	pCi/g						
Lead-212		0.941	+/-0.0595	0.024	+/-0.0595	0.0498	pCi/g						
Lead-214		0.548	+/-0.0786	0.0289	+/-0.0786	0.0605	pCi/g						
Manganese-54	U	0.0208	+/-0.0263	0.0165	+/-0.0263	0.035	pCi/g						
Niobium-94	U	0.0123	+/-0.0166	0.0151	+/-0.0166	0.0319	pCi/g						
Potassium-40		14.9	+/-0.849	0.115	+/-0.849	0.260	pCi/g						
Radium-226		0.526	+/-0.0724	0.0265	+/-0.0724	0.0564	pCi/g						
Silver-108m	U	-0.00471	+/-0.0173	0.0134	+/-0.0173	0.0283	pCi/g						
Thallium-208		0.280	+/-0.0434	0.0165	+/-0.0434	0.0347	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-029-I
Sample ID: 175874028

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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> 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: 9522-0003-030-I
Sample ID: 175874029
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 5.92%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		1.23	+/-0.232	0.0851	+/-0.232	0.183	pCi/g		MJH1	11/15/06	1537	587872
Americium-241	U	-0.000318	+/-0.0402	0.038	+/-0.0402	0.0783	pCi/g					
Bismuth-212		1.13	+/-0.370	0.208	+/-0.370	0.442	pCi/g					
Bismuth-214		0.672	+/-0.105	0.0456	+/-0.105	0.0967	pCi/g					
Cesium-134	U	0.00	+/-0.0535	0.0355	+/-0.0535	0.0748	pCi/g					
Cesium-137	U	0.0295	+/-0.034	0.0285	+/-0.034	0.0603	pCi/g					
Cobalt-60	U	0.0132	+/-0.0311	0.0277	+/-0.0311	0.0602	pCi/g					
Europium-152	U	-0.0147	+/-0.0693	0.0604	+/-0.0693	0.127	pCi/g					
Europium-154	U	-0.0208	+/-0.097	0.0812	+/-0.097	0.176	pCi/g					
Europium-155	U	0.106	+/-0.0905	0.0589	+/-0.0905	0.122	pCi/g					
Lead-212		1.09	+/-0.100	0.0538	+/-0.100	0.110	pCi/g					
Lead-214		0.708	+/-0.105	0.0444	+/-0.105	0.0933	pCi/g					
Manganese-54	U	0.0111	+/-0.0293	0.0259	+/-0.0293	0.0553	pCi/g					
Niobium-94	U	0.0163	+/-0.0281	0.0256	+/-0.0281	0.0541	pCi/g					
Potassium-40		16.3	+/-1.15	0.210	+/-1.15	0.468	pCi/g					
Radium-226		0.672	+/-0.105	0.0456	+/-0.105	0.0967	pCi/g					
Silver-108m	U	-0.0167	+/-0.0239	0.0212	+/-0.0239	0.0448	pCi/g					
Thallium-208		0.432	+/-0.0642	0.0249	+/-0.0642	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-030-I
Sample ID: 175874029

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-031-I
Sample ID: 175874030
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 22.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.868	+/-0.151	0.0448	+/-0.151	0.0953	pCi/g		MJH1	11/15/06	1537	587872
Americium-241	U	-0.0916	+/-0.123	0.0822	+/-0.123	0.170	pCi/g					
Bismuth-212		0.425	+/-0.198	0.107	+/-0.198	0.225	pCi/g					
Bismuth-214		0.674	+/-0.0816	0.0255	+/-0.0816	0.0534	pCi/g					
Cesium-134	U	0.0213	+/-0.0209	0.0167	+/-0.0209	0.0352	pCi/g					
Cesium-137		0.413	+/-0.0409	0.016	+/-0.0409	0.0334	pCi/g					
Cobalt-60	U	0.00	+/-0.0223	0.0168	+/-0.0223	0.0358	pCi/g					
Europium-152	U	0.0206	+/-0.0406	0.0376	+/-0.0406	0.0783	pCi/g					
Europium-154	U	-1.100E-05	+/-0.0478	0.0415	+/-0.0478	0.0888	pCi/g					
Europium-155	U	-0.00983	+/-0.0515	0.0478	+/-0.0515	0.0986	pCi/g					
Lead-212		0.857	+/-0.0528	0.0225	+/-0.0528	0.0465	pCi/g					
Lead-214		0.829	+/-0.0749	0.0254	+/-0.0749	0.0531	pCi/g					
Manganese-54	U	-0.0036	+/-0.0158	0.0135	+/-0.0158	0.0286	pCi/g					
Niobium-94	U	0.00745	+/-0.0139	0.0127	+/-0.0139	0.0267	pCi/g					
Potassium-40		10.7	+/-0.655	0.132	+/-0.655	0.285	pCi/g					
Radium-226		0.674	+/-0.0816	0.0255	+/-0.0816	0.0534	pCi/g					
Silver-108m	U	0.0177	+/-0.0166	0.0128	+/-0.0166	0.0267	pCi/g					
Thallium-208		0.269	+/-0.0343	0.0137	+/-0.0343	0.0288	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-031-I
Sample ID: 175874030

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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> 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: 9522-0003-032-I
Sample ID: 175874031
Matrix: TS
Collect Date: 27-OCT-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 16.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.782	+/-0.169	0.059	+/-0.169	0.118	pCi/g		MJH1	11/15/06	1539	587872
Americium-241	U	0.0603	+/-0.0866	0.0738	+/-0.0866	0.148	pCi/g					
Bismuth-212		0.540	+/-0.212	0.130	+/-0.212	0.261	pCi/g					
Bismuth-214		0.751	+/-0.105	0.0331	+/-0.105	0.0661	pCi/g					
Cesium-134	U	0.00	+/-0.0285	0.024	+/-0.0285	0.048	pCi/g					
Cesium-137		0.082	+/-0.0341	0.0198	+/-0.0341	0.0396	pCi/g					
Cobalt-60	U	-0.00498	+/-0.0223	0.0185	+/-0.0223	0.0371	pCi/g					
Europium-152	U	-0.0204	+/-0.0609	0.0466	+/-0.0609	0.0932	pCi/g					
Europium-154	U	-0.0282	+/-0.0635	0.0518	+/-0.0635	0.104	pCi/g					
Europium-155	U	0.0042	+/-0.0593	0.0546	+/-0.0593	0.109	pCi/g					
Lead-212		0.834	+/-0.0908	0.0288	+/-0.0908	0.0577	pCi/g					
Lead-214		0.834	+/-0.104	0.0339	+/-0.104	0.0677	pCi/g					
Manganese-54	U	0.0016	+/-0.021	0.0186	+/-0.021	0.0372	pCi/g					
Niobium-94	U	-0.006	+/-0.0191	0.016	+/-0.0191	0.032	pCi/g					
Potassium-40		10.9	+/-0.993	0.104	+/-0.993	0.207	pCi/g					
Radium-226		0.751	+/-0.105	0.0331	+/-0.105	0.0661	pCi/g					
Silver-108m	U	-0.00777	+/-0.0203	0.0151	+/-0.0203	0.0302	pCi/g					
Thallium-208		0.246	+/-0.047	0.0178	+/-0.047	0.0356	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-032-I
Sample ID: 175874031

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-033-I
Sample ID: 175874032
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 15.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	A
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.618	+/-0.186	0.0704	+/-0.186	0.141	pCi/g		MJH1	11/15/06	1540	587872	
Americium-241	U	0.0144	+/-0.0347	0.0289	+/-0.0347	0.0577	pCi/g						
Bismuth-212		0.610	+/-0.339	0.166	+/-0.339	0.333	pCi/g						
Bismuth-214		0.513	+/-0.0986	0.0346	+/-0.0986	0.0692	pCi/g						
Cesium-134	U	0.0321	+/-0.0311	0.0262	+/-0.0311	0.0524	pCi/g						
Cesium-137		0.181	+/-0.0488	0.0212	+/-0.0488	0.0424	pCi/g						
Cobalt-60	U	0.00823	+/-0.0289	0.0253	+/-0.0289	0.0505	pCi/g						
Europium-152	U	0.0531	+/-0.060	0.048	+/-0.060	0.0959	pCi/g						
Europium-154	U	0.0311	+/-0.0937	0.0717	+/-0.0937	0.143	pCi/g						
Europium-155	U	0.0357	+/-0.0507	0.0477	+/-0.0507	0.0953	pCi/g						
Lead-212		0.690	+/-0.0827	0.0256	+/-0.0827	0.0512	pCi/g						
Lead-214		0.569	+/-0.095	0.0323	+/-0.095	0.0645	pCi/g						
Manganese-54	U	0.0129	+/-0.0182	0.0224	+/-0.0182	0.0447	pCi/g						
Niobium-94	U	0.0289	+/-0.0204	0.0198	+/-0.0204	0.0395	pCi/g						
Potassium-40		9.59	+/-0.901	0.191	+/-0.901	0.382	pCi/g						
Radium-226		0.513	+/-0.0986	0.0346	+/-0.0986	0.0692	pCi/g						
Silver-108m	U	-0.00398	+/-0.0194	0.0159	+/-0.0194	0.0319	pCi/g						
Thallium-208		0.246	+/-0.0495	0.0204	+/-0.0495	0.0407	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	MXP2	11/10/06	1316	587480

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

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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: 9522-0003-033-I
Sample ID: 175874032

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > 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: 9522-0003-034-I
Sample ID: 175874033
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 11%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.726	+/-0.165	0.0397	+/-0.165	0.0855	pCi/g		MJH1	11/15/06	1627	587872	
Americium-241	U	-0.0387	+/-0.134	0.0863	+/-0.134	0.177	pCi/g						
Bismuth-212		0.596	+/-0.223	0.100	+/-0.223	0.212	pCi/g						
Bismuth-214		0.532	+/-0.0915	0.0241	+/-0.0915	0.0509	pCi/g						
Cesium-134	U	0.019	+/-0.0219	0.0178	+/-0.0219	0.0375	pCi/g						
Cesium-137		0.478	+/-0.0598	0.0144	+/-0.0598	0.0304	pCi/g						
Cobalt-60	U	0.00	+/-0.0431	0.0174	+/-0.0431	0.0372	pCi/g						
Europium-152	U	-0.0158	+/-0.0432	0.0378	+/-0.0432	0.0785	pCi/g						
Europium-154	U	-0.0369	+/-0.0552	0.0376	+/-0.0552	0.0817	pCi/g						
Europium-155	U	-0.00207	+/-0.0481	0.0433	+/-0.0481	0.089	pCi/g						
Lead-212		0.668	+/-0.076	0.0213	+/-0.076	0.0439	pCi/g						
Lead-214		0.600	+/-0.0916	0.0257	+/-0.0916	0.0535	pCi/g						
Manganese-54	U	0.0059	+/-0.0156	0.014	+/-0.0156	0.0295	pCi/g						
Niobium-94	U	0.00162	+/-0.0143	0.0128	+/-0.0143	0.0269	pCi/g						
Potassium-40		10.2	+/-0.951	0.126	+/-0.951	0.276	pCi/g						
Radium-226		0.532	+/-0.0915	0.0241	+/-0.0915	0.0509	pCi/g						
Silver-108m	U	0.00328	+/-0.0146	0.0129	+/-0.0146	0.0269	pCi/g						
Thallium-208		0.202	+/-0.038	0.0134	+/-0.038	0.0281	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	MXP2	11/10/06	1316	587480

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

Report Date: November 17, 2006

Client Sample ID: 9522-0003-034-I
Sample ID: 175874033

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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> Result is greater than value reported
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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

Page 1 of 8

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 175874

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	587666										
QC1201227490 175874001 DUP											
Actinium-228		0.688		0.719	pCi/g	4		(0% - 100%)	MJH1	11/15/06	06:44
	Uncert:	+/-0.133		+/-0.172							
	TPU:	+/-0.133		+/-0.172							
Americium-241	U	-0.0488	U	0.0263	pCi/g	668		(0% - 100%)			
	Uncert:	+/-0.093		+/-0.055							
	TPU:	+/-0.093		+/-0.055							
Bismuth-212		0.551		0.416	pCi/g	28		(0% - 100%)			
	Uncert:	+/-0.227		+/-0.229							
	TPU:	+/-0.227		+/-0.229							
Bismuth-214		0.539		0.545	pCi/g	1		(0% - 100%)			
	Uncert:	+/-0.0745		+/-0.096							
	TPU:	+/-0.0745		+/-0.096							
Cesium-134	UI	0.00	U	0.0328	pCi/g	17		(0% - 100%)			
	Uncert:	+/-0.0254		+/-0.0282							
	TPU:	+/-0.0254		+/-0.0282							
Cesium-137		0.0888		0.0743	pCi/g	18		(0% - 100%)			
	Uncert:	+/-0.0241		+/-0.0392							
	TPU:	+/-0.0241		+/-0.0392							
Cobalt-60	U	0.00545	U	0.00126	pCi/g	125		(0% - 100%)			
	Uncert:	+/-0.0171		+/-0.0167							
	TPU:	+/-0.0171		+/-0.0167							
Europium-152	U	-0.0348	U	-0.0173	pCi/g	67		(0% - 100%)			
	Uncert:	+/-0.0392		+/-0.0401							
	TPU:	+/-0.0392		+/-0.0401							
Europium-154	U	-0.0578	U	0.0523	pCi/g	3970		(0% - 100%)			
	Uncert:	+/-0.0437		+/-0.0545							
	TPU:	+/-0.0437		+/-0.0545							
Europium-155	U	0.0298	U	0.0243	pCi/g	20		(0% - 100%)			
	Uncert:	+/-0.0496		+/-0.0561							
	TPU:	+/-0.0496		+/-0.0561							
Lead-212		0.713		0.722	pCi/g	1		(0% - 20%)			
	Uncert:	+/-0.0506		+/-0.0744							
	TPU:	+/-0.0506		+/-0.0744							
Lead-214		0.576		0.595	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.0753		+/-0.0926							
	TPU:	+/-0.0753		+/-0.0926							
Manganese-54	U	0.018	U	-0.00475	pCi/g	343		(0% - 100%)			
	Uncert:	+/-0.016		+/-0.0174							
	TPU:	+/-0.016		+/-0.0174							
Niobium-94	U	0.00958	U	0.0163	pCi/g	52		(0% - 100%)			
	Uncert:	+/-0.0132		+/-0.0143							
	TPU:	+/-0.0132		+/-0.0143							

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 175874

Page 2 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	587666										
Potassium-40		10.9		10.1	pCi/g	7		(0% - 20%)			
	Uncert:	+/-0.645		+/-0.937							
	TPU:	+/-0.645		+/-0.937							
Radium-226		0.539		0.545	pCi/g	1		(0% - 100%)			
	Uncert:	+/-0.0745		+/-0.096							
	TPU:	+/-0.0745		+/-0.096							
Silver-108m	U	-0.00538	U	-0.00981	pCi/g	58		(0% - 100%)			
	Uncert:	+/-0.0128		+/-0.0145							
	TPU:	+/-0.0128		+/-0.0145							
Thallium-208		0.229		0.194	pCi/g	17		(0% - 100%)			
	Uncert:	+/-0.0326		+/-0.0461							
	TPU:	+/-0.0326		+/-0.0461							
QC1201227491	LCS										
Actinium-228			U	-0.0159	pCi/g					11/15/06	06:51
	Uncert:			+/-0.566							
	TPU:			+/-0.566							
Americium-241	23.4			24.2	pCi/g		103	(75%-125%)			
	Uncert:			+/-2.49							
	TPU:			+/-2.49							
Bismuth-212			U	-0.879	pCi/g						
	Uncert:			+/-1.03							
	TPU:			+/-1.03							
Bismuth-214			U	-0.0794	pCi/g						
	Uncert:			+/-0.231							
	TPU:			+/-0.231							
Cesium-134			U	0.111	pCi/g						
	Uncert:			+/-0.143							
	TPU:			+/-0.143							
Cesium-137	9.53			9.92	pCi/g		104	(75%-125%)			
	Uncert:			+/-0.774							
	TPU:			+/-0.774							
Cobalt-60	14.1			14.9	pCi/g		106	(75%-125%)			
	Uncert:			+/-1.02							
	TPU:			+/-1.02							
Europium-152			U	-0.233	pCi/g						
	Uncert:			+/-0.298							
	TPU:			+/-0.298							
Europium-154			U	0.0422	pCi/g						
	Uncert:			+/-0.283							
	TPU:			+/-0.283							
Europium-155			U	0.386	pCi/g						
	Uncert:			+/-0.361							
	TPU:			+/-0.361							
Lead-212			U	0.0828	pCi/g						
	Uncert:			+/-0.156							
	TPU:			+/-0.156							
Lead-214			U	-0.123	pCi/g						
	Uncert:			+/-0.258							

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

QC Summary

Workorder: 175874

Page 3 of 8

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	587666									
Manganese-54	TPU:		+/-0.258							
		U	-0.109	pCi/g						
	Uncert:		+/-0.130							
	TPU:		+/-0.130							
Niobium-94		U	0.0258	pCi/g						
	Uncert:		+/-0.112							
	TPU:		+/-0.112							
Potassium-40		U	-0.0541	pCi/g						
	Uncert:		+/-0.835							
	TPU:		+/-0.835							
Radium-226		U	-0.0794	pCi/g			(75%-125%)			
	Uncert:		+/-0.231							
	TPU:		+/-0.231							
Silver-108m		U	0.0241	pCi/g						
	Uncert:		+/-0.116							
	TPU:		+/-0.116							
Thallium-208		U	0.112	pCi/g						
	Uncert:		+/-0.125							
	TPU:		+/-0.125							
QC1201227489 MB										
Actinium-228		U	0.0384	pCi/g					11/15/06	06:43
	Uncert:		+/-0.0367							
	TPU:		+/-0.0367							
Americium-241		U	0.0247	pCi/g						
	Uncert:		+/-0.0375							
	TPU:		+/-0.0375							
Bismuth-212		U	0.00837	pCi/g						
	Uncert:		+/-0.0736							
	TPU:		+/-0.0736							
Bismuth-214		U	0.0293	pCi/g						
	Uncert:		+/-0.0237							
	TPU:		+/-0.0237							
Cesium-134		U	-0.00412	pCi/g						
	Uncert:		+/-0.0107							
	TPU:		+/-0.0107							
Cesium-137		U	-0.00228	pCi/g						
	Uncert:		+/-0.0107							
	TPU:		+/-0.0107							
Cobalt-60		U	-0.000951	pCi/g						
	Uncert:		+/-0.00927							
	TPU:		+/-0.00927							
Europium-152		U	-0.000976	pCi/g						
	Uncert:		+/-0.0256							
	TPU:		+/-0.0256							
Europium-154		U	-0.0105	pCi/g						
	Uncert:		+/-0.0266							
	TPU:		+/-0.0266							
Europium-155		U	-0.000804	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 175874

Page 4 of 8

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	587666										
Lead-212		Uncert:		+/-0.0256							
		TPU:		+/-0.0256							
			U	0.00812	pCi/g						
Lead-214		Uncert:		+/-0.0279							
		TPU:		+/-0.0279							
			U	0.0218	pCi/g						
Manganese-54		Uncert:		+/-0.0201							
		TPU:		+/-0.0201							
			U	-0.00627	pCi/g						
Niobium-94		Uncert:		+/-0.00921							
		TPU:		+/-0.00921							
			U	0.00125	pCi/g						
Potassium-40		Uncert:		+/-0.00918							
		TPU:		+/-0.00918							
			U	0.245	pCi/g						
Radium-226		Uncert:		+/-0.140							
		TPU:		+/-0.140							
			U	0.0293	pCi/g						
Silver-108m		Uncert:		+/-0.0237							
		TPU:		+/-0.0237							
			U	0.00255	pCi/g						
Thallium-208		Uncert:		+/-0.00826							
		TPU:		+/-0.00826							
			U	0.000965	pCi/g						
Batch	587872	Uncert:		+/-0.0204							
		TPU:		+/-0.0204							
QC1201227992	175874021	DUP									
Actinium-228		0.536		0.624	pCi/g	15		(0% - 100%)	MJH1	11/15/06	17:43
Americium-241		Uncert:		+/-0.141							
		TPU:		+/-0.141							
	U	0.0168	U	4.540E-05	pCi/g	199		(0% - 100%)			
Bismuth-212		Uncert:		+/-0.101							
		TPU:		+/-0.101							
	U	0.00	U	0.278	pCi/g	49		(0% - 100%)			
Bismuth-214		Uncert:		+/-0.257							
		TPU:		+/-0.257							
		0.557		0.654	pCi/g	16		(0% - 100%)			
Cesium-134		Uncert:		+/-0.0826							
		TPU:		+/-0.0826							
	U	0.0343	U	0.0208	pCi/g	49		(0% - 100%)			
Cesium-137		Uncert:		+/-0.0407							
		TPU:		+/-0.0407							
		0.0776		0.0734	pCi/g	6		(0% - 100%)			
Cobalt-60		Uncert:		+/-0.0363							
		TPU:		+/-0.0363							
	U	-0.017	U	-0.00328	pCi/g	135		(0% - 100%)			
		Uncert:		+/-0.0206							

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	587872										
Europium-152	TPU:	+/-0.0206		+/-0.0241							
	U	0.00658	U	0.0238	pCi/g	113		(0% - 100%)			
	Uncert:	+/-0.0557		+/-0.0577							
Europium-154	TPU:	+/-0.0557		+/-0.0577							
	U	-0.0388	U	-0.00925	pCi/g	123		(0% - 100%)			
	Uncert:	+/-0.0611		+/-0.0577							
Europium-155	TPU:	+/-0.0611		+/-0.0577							
	U	0.0395	U	0.0154	pCi/g	88		(0% - 100%)			
	Uncert:	+/-0.0524		+/-0.0582							
Lead-212	TPU:	+/-0.0524		+/-0.0582							
		0.671		0.682	pCi/g	2		(0% - 20%)			
	Uncert:	+/-0.0582		+/-0.0654							
Lead-214	TPU:	+/-0.0582		+/-0.0654							
		0.596		0.659	pCi/g	10		(0% - 20%)			
	Uncert:	+/-0.0836		+/-0.110							
Manganese-54	TPU:	+/-0.0836		+/-0.110							
	U	0.00488	U	0.00983	pCi/g	67		(0% - 100%)			
	Uncert:	+/-0.0188		+/-0.0232							
Niobium-94	TPU:	+/-0.0188		+/-0.0232							
	U	0.0161	U	0.0055	pCi/g	98		(0% - 100%)			
	Uncert:	+/-0.0167		+/-0.0226							
Potassium-40	TPU:	+/-0.0167		+/-0.0226							
		10.2		10.6	pCi/g	4		(0% - 20%)			
	Uncert:	+/-0.775		+/-0.949							
Radium-226	TPU:	+/-0.775		+/-0.949							
		0.557		0.654	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.0826		+/-0.101							
Silver-108m	TPU:	+/-0.0826		+/-0.101							
	U	-0.00711	U	0.0162	pCi/g	512		(0% - 100%)			
	Uncert:	+/-0.0169		+/-0.0198							
Thallium-208	TPU:	+/-0.0169		+/-0.0198							
		0.195		0.248	pCi/g	24		(0% - 100%)			
	Uncert:	+/-0.0364		+/-0.0473							
QC1201227993	LCS	TPU:	+/-0.0364	+/-0.0473							
Actinium-228			U	0.102	pCi/g					11/17/06	07:02
	Uncert:			+/-0.747							
	TPU:			+/-0.747							
Americium-241	23.4			25.7	pCi/g		110	(75%-125%)			
	Uncert:			+/-2.11							
	TPU:			+/-2.11							
Bismuth-212				2.29	pCi/g						
	Uncert:			+/-3.32							
	TPU:			+/-3.32							
Bismuth-214			U	0.124	pCi/g						
	Uncert:			+/-0.298							
	TPU:			+/-0.298							
Cesium-134			U	0.133	pCi/g						

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Parmname	NOM	Sample Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	587872									
	Uncert:		+/-0.210							
	TPU:		+/-0.210							
Cesium-137	9.53		10.3	pCi/g		108	(75%-125%)			
	Uncert:		+/-1.11							
	TPU:		+/-1.11							
Cobalt-60	14.1		15.0	pCi/g		106	(75%-125%)			
	Uncert:		+/-0.785							
	TPU:		+/-0.785							
Europium-152		U	0.0222	pCi/g						
	Uncert:		+/-0.331							
	TPU:		+/-0.331							
Europium-154		U	0.165	pCi/g						
	Uncert:		+/-0.334							
	TPU:		+/-0.334							
Europium-155		U	-0.014	pCi/g						
	Uncert:		+/-0.287							
	TPU:		+/-0.287							
Lead-212		U	-0.0475	pCi/g						
	Uncert:		+/-0.175							
	TPU:		+/-0.175							
Lead-214		U	0.142	pCi/g						
	Uncert:		+/-0.253							
	TPU:		+/-0.253							
Manganese-54		U	0.165	pCi/g						
	Uncert:		+/-0.177							
	TPU:		+/-0.177							
Niobium-94		U	0.0744	pCi/g						
	Uncert:		+/-0.150							
	TPU:		+/-0.150							
Potassium-40		U	-0.0165	pCi/g						
	Uncert:		+/-1.29							
	TPU:		+/-1.29							
Radium-226		U	0.124	pCi/g			(75%-125%)			
	Uncert:		+/-0.298							
	TPU:		+/-0.298							
Silver-108m		U	-0.0392	pCi/g						
	Uncert:		+/-0.133							
	TPU:		+/-0.133							
Thallium-208		U	-0.0868	pCi/g						
	Uncert:		+/-0.164							
	TPU:		+/-0.164							
QC1201227991 MB										
Actinium-228		U	0.0108	pCi/g					11/15/06	16:27
	Uncert:		+/-0.0439							
	TPU:		+/-0.0439							
Americium-241		U	0.00218	pCi/g						
	Uncert:		+/-0.0311							
	TPU:		+/-0.0311							

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Parmname	NOM	Sample Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	587872									
Bismuth-212		U	0.0615	pCi/g						
	Uncert:		+/-0.0801							
	TPU:		+/-0.0801							
Bismuth-214		U	0.00	pCi/g						
	Uncert:		+/-0.0379							
	TPU:		+/-0.0379							
Cesium-134		U	0.00666	pCi/g						
	Uncert:		+/-0.00908							
	TPU:		+/-0.00908							
Cesium-137		U	-0.00782	pCi/g						
	Uncert:		+/-0.0103							
	TPU:		+/-0.0103							
Cobalt-60		U	0.00521	pCi/g						
	Uncert:		+/-0.00971							
	TPU:		+/-0.00971							
Europium-152		U	0.0178	pCi/g						
	Uncert:		+/-0.0291							
	TPU:		+/-0.0291							
Europium-154		U	-0.00351	pCi/g						
	Uncert:		+/-0.0268							
	TPU:		+/-0.0268							
Europium-155		U	-0.00115	pCi/g						
	Uncert:		+/-0.026							
	TPU:		+/-0.026							
Lead-212		U	0.00864	pCi/g						
	Uncert:		+/-0.0203							
	TPU:		+/-0.0203							
Lead-214		U	0.00678	pCi/g						
	Uncert:		+/-0.0201							
	TPU:		+/-0.0201							
Manganese-54		U	-0.00126	pCi/g						
	Uncert:		+/-0.0097							
	TPU:		+/-0.0097							
Niobium-94		U	0.0045	pCi/g						
	Uncert:		+/-0.012							
	TPU:		+/-0.012							
Potassium-40		U	0.150	pCi/g						
	Uncert:		+/-0.123							
	TPU:		+/-0.123							
Radium-226		U	0.00	pCi/g						
	Uncert:		+/-0.0379							
	TPU:		+/-0.0379							
Silver-108m		U	-0.00184	pCi/g						
	Uncert:		+/-0.00914							
	TPU:		+/-0.00914							
Thallium-208		U	0.015	pCi/g						
	Uncert:		+/-0.0127							
	TPU:		+/-0.0127							

QC Summary

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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 acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 175901**

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: 587482
Dry Soil Prep GL-RAD-A-021 Batch Number: 587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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:	587482
Dry Soil Prep GL-RAD-A-021 Batch Number:	587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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:	587482
Dry Soil Prep GL-RAD-A-021 Batch Number:	587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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:	587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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) and 175901001 (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 interference.	Europium-155	175901002
UI	Data rejected due to low abundance.	Bismuth-212	175901001
		Cesium-134	175901001
			175901002
		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: 587482
Dry Soil Prep GL-RAD-A-021 Batch Number: 587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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
175901001	9522-0003-006F
175901002	9522-0003-016F
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:	587482
Dry Soil Prep GL-RAD-A-021 Batch Number:	587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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:	587482
Dry Soil Prep GL-RAD-A-021 Batch Number:	587481

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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 - 3 pCi/g
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	588500

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
1201229399	Method Blank (MB)
1201229400	175901001(9522-0003-006F) Sample Duplicate (DUP)
1201229401	175901001(9522-0003-006F) Matrix Spike (MS)
1201229402	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 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: Liquid Scint C14, Solid All,FSS

Analytical Method: EPA EERF C-01 Modified

Analytical Batch Number: 587976

Sample ID	Client ID
175901001	9522-0003-006F
175901002	9522-0003-016F
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

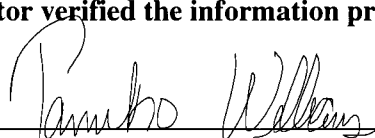
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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: _____

 11/20/04

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#06-1459 GEL Work Order: 175901

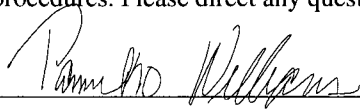
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.



Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 20, 2006

Client Sample ID: 9522-0003-006F
Sample ID: 175901001
Matrix: TS
Collect Date: 03-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 10.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.0111	+/-0.0716	0.0674	+/-0.0717	0.218	pCi/g	JAS1	11/14/06	2012	587952		
Curium-242	U	0.0644	+/-0.0893	0.00	+/-0.0896	0.0873	pCi/g						
Curium-243/244	U	-0.0159	+/-0.151	0.132	+/-0.151	0.347	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.103	+/-0.0583	0.111	+/-0.0594	0.320	pCi/g	JAS1	11/14/06	2012	587954		
Plutonium-239/240	U	-0.0129	+/-0.137	0.120	+/-0.137	0.337	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	0.987	+/-7.15	5.96	+/-7.15	12.5	pCi/g	JAS1	11/16/06	1542	587955		
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.623	+/-0.117	0.0561	+/-0.117	0.121	pCi/g	MJH1	11/13/06	1442	587668		
Americium-241	U	-0.0244	+/-0.0896	0.0715	+/-0.0896	0.148	pCi/g						
Bismuth-212	UI	0.00	+/-0.166	0.166	+/-0.166	0.349	pCi/g						
Bismuth-214		0.587	+/-0.0824	0.0288	+/-0.0824	0.0615	pCi/g						
Cesium-134	UI	0.00	+/-0.0419	0.0195	+/-0.0419	0.0416	pCi/g						
Cesium-137		0.137	+/-0.0402	0.0136	+/-0.0402	0.0294	pCi/g						
Cobalt-60	U	0.00871	+/-0.0188	0.0152	+/-0.0188	0.0339	pCi/g						
Europium-152	U	-0.0167	+/-0.0452	0.0378	+/-0.0452	0.0799	pCi/g						
Europium-154	U	-0.0586	+/-0.0558	0.0415	+/-0.0558	0.0926	pCi/g						
Europium-155	U	0.0367	+/-0.0494	0.048	+/-0.0494	0.0994	pCi/g						
Lead-212		0.647	+/-0.0514	0.022	+/-0.0514	0.0459	pCi/g						
Lead-214		0.536	+/-0.0697	0.0285	+/-0.0697	0.060	pCi/g						
Manganese-54	U	-0.00498	+/-0.0185	0.0153	+/-0.0185	0.033	pCi/g						
Niobium-94	U	-0.00593	+/-0.016	0.0134	+/-0.016	0.0288	pCi/g						
Potassium-40		9.70	+/-0.790	0.145	+/-0.790	0.325	pCi/g						
Radium-226		0.587	+/-0.0824	0.0288	+/-0.0824	0.0615	pCi/g						
Silver-108m	U	0.00162	+/-0.0147	0.0134	+/-0.0147	0.0284	pCi/g						
Thallium-208		0.202	+/-0.0371	0.0167	+/-0.0371	0.0355	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90		0.0337	+/-0.0216	0.0146	+/-0.0216	0.0329	pCi/g	KSD1	11/15/06	1718	588008		
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid - 3 pCi/g</i>													
Tritium	U	0.354	+/-1.59	1.32	+/-1.59	2.75	pCi/g	MXP1	11/15/06	1416	588500		

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: 9522-0003-006F
Sample ID: 175901001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Liquid Scintillation Analysis												
<i>Liquid Scint C14, Solid ALL FSS</i>												
Carbon-14	U	0.00842	+/-0.0844	0.0704	+/-0.0844	0.149	pCi/g		AXD2	11/14/06	1659	587976
<i>Liquid Scint Fe55, Solid-ALL FSS</i>												
Iron-55	U	0.558	+/-29.5	21.9	+/-29.5	46.0	pCi/g		MXP1	11/14/06	1901	587968
<i>Liquid Scint Ni63, Solid-ALL FSS</i>												
Nickel-63	U	0.00	+/-11.7	9.82	+/-11.7	20.4	pCi/g		MXP1	11/14/06	1727	587973
<i>Liquid Scint Tc99, Solid-ALL FSS</i>												
Technetium-99	U	-0.00999	+/-0.215	0.181	+/-0.215	0.369	pCi/g		KXR1	11/19/06	2348	587960

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	11/10/06	1338	587481

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 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	93	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	77	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	97	(25%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	85	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	85	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-ALL FS	74	(15%-125%)

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

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

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 20, 2006

Client Sample ID: 9522-0003-006F
Sample ID: 175901001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			74		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			74		(25%-125%)						
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			69		(15%-125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			69		(15%-125%)						

Notes:

The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B Target analyte was detected in the associated blank
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
 - UI Gamma Spectroscopy--Uncertain identification
 - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
 - Y QC Samples were not spiked with this compound
 - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
 - h Preparation or preservation holding time was exceeded
- The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 20, 2006

Client Sample ID: 9522-0003-016F
Sample ID: 175901002
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 10-NOV-06
Collector: Client
Moisture: 15.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0806	+/-0.154	0.0974	+/-0.154	0.284	pCi/g	JAS1	11/14/06	2012	587952		
Curium-242	U	0.0789	+/-0.140	0.0807	+/-0.140	0.254	pCi/g						
Curium-243/244	U	-0.169	+/-0.143	0.171	+/-0.144	0.432	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.050	+/-0.0938	0.0418	+/-0.094	0.173	pCi/g	JAS1	11/14/06	2012	587954		
Plutonium-239/240	U	-0.0935	+/-0.0894	0.118	+/-0.090	0.325	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	3.34	+/-8.10	6.65	+/-8.11	14.0	pCi/g	JAS1	11/16/06	1558	587955		
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.840	+/-0.166	0.043	+/-0.166	0.0914	pCi/g	MJH1	11/13/06	1443	587668		
Americium-241	U	0.0885	+/-0.129	0.0857	+/-0.129	0.175	pCi/g						
Bismuth-212		0.380	+/-0.227	0.0988	+/-0.227	0.208	pCi/g						
Bismuth-214		0.643	+/-0.0956	0.0256	+/-0.0956	0.0534	pCi/g						
Cesium-134	UI	0.00	+/-0.030	0.0164	+/-0.030	0.0344	pCi/g						
Cesium-137		0.0851	+/-0.0346	0.0133	+/-0.0346	0.0279	pCi/g						
Cobalt-60	U	0.00791	+/-0.0163	0.0147	+/-0.0163	0.0314	pCi/g						
Europium-152	U	-0.00973	+/-0.040	0.0347	+/-0.040	0.0719	pCi/g						
Europium-154	U	-0.0308	+/-0.0546	0.0379	+/-0.0546	0.0816	pCi/g						
Europium-155	UI	0.00	+/-0.063	0.0406	+/-0.063	0.0832	pCi/g						
Lead-212		0.764	+/-0.0802	0.0208	+/-0.0802	0.0427	pCi/g						
Lead-214		0.742	+/-0.0992	0.0242	+/-0.0992	0.0503	pCi/g						
Manganese-54	U	0.00425	+/-0.0157	0.0138	+/-0.0157	0.029	pCi/g						
Niobium-94	U	-0.00194	+/-0.0154	0.0116	+/-0.0154	0.0244	pCi/g						
Potassium-40		10.8	+/-0.931	0.116	+/-0.931	0.253	pCi/g						
Radium-226		0.643	+/-0.0956	0.0256	+/-0.0956	0.0534	pCi/g						
Silver-108m	U	0.00597	+/-0.0143	0.0111	+/-0.0143	0.0232	pCi/g						
Thallium-208		0.243	+/-0.0363	0.0128	+/-0.0363	0.0268	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Sr-90		0.0939	+/-0.0265	0.0129	+/-0.0267	0.0297	pCi/g	KSD1	11/15/06	1718	588008		
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid ~ 3 pCi/g</i>													
Tritium	U	0.199	+/-1.62	1.35	+/-1.62	2.82	pCi/g	MXP1	11/15/06	1503	588500		

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: 9522-0003-016F
Sample ID: 175901002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Liquid Scintillation Analysis													
<i>Liquid Scint C14, Solid ALL FSS</i>													
Carbon-14	U	0.00241	+/-0.0843	0.0706	+/-0.0843	0.149	pCi/g	AXD2	11/14/06	1747	587976		
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	13.0	+/-33.9	25.0	+/-33.9	52.7	pCi/g	MXP1	11/14/06	1917	587968		
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-2.69	+/-11.0	9.35	+/-11.0	19.4	pCi/g	MXP1	11/14/06	1744	587973		
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0422	+/-0.208	0.174	+/-0.208	0.356	pCi/g	KXR1	11/20/06	0020	587960		

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	11/10/06	1338	587481

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 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	86	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	90	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	93	(25%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	88	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	88	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-ALL FS	62	(15%-125%)

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: 9522-0003-016F
Sample ID: 175901002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	N
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			84		(25%-125%)					
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			84		(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:

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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: November 20, 2006

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Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 175901

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	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

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QC Summary

Workorder: 175901

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	587954										
Plutonium-239/240	Uncert:	±0.0583		±0.139							
	TPU:	±0.0594		±0.139							
	U	-0.0129	U	-0.0274	pCi/g	72		(0% - 100%)			
	Uncert:	±0.137		±0.100							
QC1201228171 LCS Plutonium-238	TPU:	±0.137		±0.100							
			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							
			U	-0.0137	pCi/g						
QC1201228168 MB Plutonium-238	Uncert:			±0.059							
	TPU:			±0.059							
			U	-0.0205	pCi/g						
	Uncert:			±0.0605							
QC1201228170 175901001 MS Plutonium-238	TPU:			±0.0605							
	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							

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Workorder: 175901

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

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Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	587668										
Thallium-208	TPU:	+/-0.0147		+/-0.0211							
		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						

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QC Summary

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

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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

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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						

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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	588500										
QC1201229400	175901001	DUP									
Tritium			U	0.354	U	0.654	pCi/g	0	(0% - 100%) MXP1	11/15/06	16:35
		Uncert:		+/-1.59	+/-1.64						
		TPU:		+/-1.59	+/-1.64						
QC1201229402	LCS										
Tritium		11.2			10.2	pCi/g	91	(75%-125%)		11/15/06	18:08
		Uncert:			+/-1.25						
		TPU:			+/-1.26						
QC1201229399	MB										
Tritium			U	0.101	pCi/g					11/15/06	15:49
		Uncert:		+/-0.816							
		TPU:		+/-0.816							
QC1201229401	175901001	MS									
Tritium		11.3	U	0.354	9.60	pCi/g	85	(75%-125%)		11/15/06	17:22
		Uncert:		+/-1.59	+/-2.05						
		TPU:		+/-1.59	+/-2.05						

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

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 175901

Page 9 of 9

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 acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

General Narrative

**General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 176997
SDG: MSR#06-1515**

December 13, 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 01, 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
176997001	9522-0003-035-I
176997002	9803-0000-028RA142

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

One soil sample was analyzed for FSSGAM. One soil sample was 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 13 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. 2006-00683

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

[illegible]

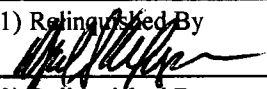
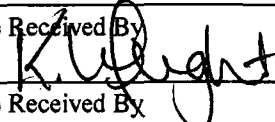
Connecticut Yankee Atomic Power Company						Chain of Custody Form						No. 2006-00692			
362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556															
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">FSSALL</div> <div></div><div></div><div></div><div></div><div></div><div></div> </div>						Comments: <div style="text-align: right; font-size: 1.2em;">1769971</div>			
Analytical Lab (Name, City, State): General Engineering Laboratories 2040 Savage Road Charleston, SC 29407 ATT: Cheryl Jones (843-556-8171)															
Priority: <input type="checkbox"/> 30 D. <input checked="" type="checkbox"/> 14 D. <input type="checkbox"/> 7 D. Other:															
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID		
9803-0000-028RA142	11/06/06	1348	TS	C	BP	X									
NOTES: PO #: 002332 MSR #: 06-1515 <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA <u>TOTAL PACKAGE WT: 10lbs.</u>												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 20 Deg. C Custody Sealed? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By 			Date/Time 11/30/06 @ 1500			2) Received By 			Date/Time 12/1/06 1115			Bill of Lading # _____			
3) Relinquished By			Date/Time			4) Received By			Date/Time						
5) Relinquished By			Date/Time			6) Received By			Date/Time						

Figure 1. Sample Check-in List

Date/Time Received: 12/10/06 1115

SDG#: ~~MSR#06-155~~ ^{12/01/06} MSR#06-1515

Work Order Number: 176997

Shipping Container ID: _____ Chain of Custody # 2006-00683/00692

1. Custody Seals on shipping container intact? Yes ☐ No ☐ NA
2. Custody Seals dated and signed? Yes ☐ No ☐ NA
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 20
5. Vermiculite/packing materials is: Wet ☐ Dry ☐ NA
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☒ appropriate sample labels

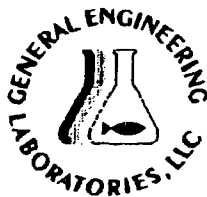
9. Samples are:

☒ 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: K. Wright Date: 12/11/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Conn. Yank</u>	SDG/ARCOC/Work Order: <u>176997</u>
Date Received: <u>12/1/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>[Signature]</u>	<u>[Signature]</u>

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 <u>none</u> other (describe) <u>20c</u>
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				<u>7922 4871 1555</u>

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*: <u>cpm 20</u>
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 cdj Date: 12/1/06

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 176997**

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:	592719
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239487	Method Blank (MB)
1201239488	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239489	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239490	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: 176997002 (9803-0000-028RA142).

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:	592720
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239491	Method Blank (MB)
1201239492	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239493	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239494	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: 176997002 (9803-0000-028RA142).

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:	592728
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239521	Method Blank (MB)
1201239522	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239523	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239524	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

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

Sample Geometry

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

Quality Control (QC) Information:

Blank Information

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

Designated QC

The following sample was used for QC: 176997002 (9803-0000-028RA142).

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:	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:	592926
Prep Batch Number:	592530

Sample ID	Client ID
176997001	9522-0003-035-I
176997002	9803-0000-028RA142
1201239983	Method Blank (MB)
1201239984	176997001(9522-0003-035-I) Sample Duplicate (DUP)
1201239985	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: 176997001 (9522-0003-035-I).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Europium-155	176997002
UI	Data rejected due to low abundance.	Cesium-134	176997002
		Cobalt-60	176997001

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:	592716
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239471	Method Blank (MB)
1201239472	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239473	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239474	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: 176997002 (9803-0000-028RA142).

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

Samples were reweighed due to high matrix spike recovery. The blank result for 1201239471 (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 Tc99, Solid-ALL FSS
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number: 592681

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239373	Method Blank (MB)
1201239374	177000005(06-OT-11-047) Sample Duplicate (DUP)
1201239375	177000005(06-OT-11-047) Matrix Spike (MS)
1201239376	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: 177000005 (06-OT-11-047).

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 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:	592687
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239386	Method Blank (MB)
1201239387	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239388	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239389	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: 176997002 (9803-0000-028RA142).

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 because the first count was on a machine that was not calibrated for Fe-55.

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:	594908
Prep Batch Number:	592532
Dry Soil Prep GL-RAD-A-021 Batch Number:	592530

Sample ID	Client ID
176997002	9803-0000-028RA142
1201244427	Method Blank (MB)
1201244428	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201244429	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201244430	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: 176997002 (9803-0000-028RA142).

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 176997002 (9803-0000-028RA142) was reprepared due to low/high recovery.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: LSC, Tritium Dist, Solid - 3 pCi/g

Analytical Method: EPA 906.0 Modified

Analytical Batch Number: 592689

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239394	Method Blank (MB)
1201239395	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239396	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239397	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 volume in this batch.

Designated QC

The following sample was used for QC: 176997002 (9803-0000-028RA142).

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 176997002 (9803-0000-028RA142) 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.

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: 592691

Sample ID	Client ID
176997002	9803-0000-028RA142
1201239401	Method Blank (MB)
1201239402	176997002(9803-0000-028RA142) Sample Duplicate (DUP)
1201239403	176997002(9803-0000-028RA142) Matrix Spike (MS)
1201239404	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: 176997002 (9803-0000-028RA142).

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:

 12/14/60

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#06-1515 GEL Work Order: 176997

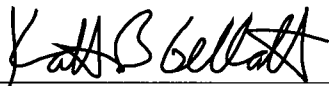
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.



Reviewed by _____

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 14, 2006

Client Sample ID: 9522-0003-035-I
Sample ID: 176997001
Matrix: TS
Collect Date: 20-NOV-06
Receive Date: 01-DEC-06
Collector: Client
Moisture: 9.73%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch
Rad Gamma Spec Analysis												
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>												
<i>Waived</i>												
Actinium-228		0.678	+/-0.129	0.0428	+/-0.129	0.0913	pCi/g					
Americium-241	U	-0.0431	+/-0.0915	0.072	+/-0.0915	0.149	pCi/g		MJH1	12/05/06	1205	592926
Bismuth-212		0.445	+/-0.178	0.0971	+/-0.178	0.205	pCi/g					
Bismuth-214		0.439	+/-0.0626	0.0207	+/-0.0626	0.0439	pCi/g					
Cesium-134	U	0.0289	+/-0.021	0.0154	+/-0.021	0.0324	pCi/g					
Cesium-137		0.0835	+/-0.0317	0.012	+/-0.0317	0.0254	pCi/g					
Cobalt-60	UI	0.00	+/-0.0173	0.0146	+/-0.0173	0.0314	pCi/g					
Europium-152	U	-0.00563	+/-0.0367	0.031	+/-0.0367	0.0647	pCi/g					
Europium-154	U	0.00432	+/-0.0449	0.0385	+/-0.0449	0.083	pCi/g					
Europium-155	U	0.0182	+/-0.040	0.0381	+/-0.040	0.0784	pCi/g					
Lead-212		0.520	+/-0.0465	0.021	+/-0.0465	0.0433	pCi/g					
Lead-214		0.453	+/-0.059	0.0232	+/-0.059	0.0484	pCi/g					
Manganese-54	U	0.00348	+/-0.0136	0.0117	+/-0.0136	0.0249	pCi/g					
Niobium-94	U	0.0151	+/-0.0144	0.0117	+/-0.0144	0.0246	pCi/g					
Potassium-40		9.89	+/-0.661	0.105	+/-0.661	0.233	pCi/g					
Radium-226		0.439	+/-0.0626	0.0207	+/-0.0626	0.0439	pCi/g					
Silver-108m	U	-0.0025	+/-0.0127	0.0113	+/-0.0127	0.0236	pCi/g					
Thallium-208		0.200	+/-0.0261	0.0111	+/-0.0261	0.0235	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	MXP2	12/01/06	1457	592530

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

Report Date: December 14, 2006

Client Sample ID: 9522-0003-035-I
Sample ID: 176997001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
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- > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B Target analyte was detected in the associated blank
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
 - UI Gamma Spectroscopy—Uncertain identification
 - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
 - Y QC Samples were not spiked with this compound
 - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
 - h Preparation or preservation holding time was exceeded
- The above sample is reported on a dry weight basis.

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

Certificate of Analysis

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

East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: December 14, 2006

Client Sample ID: 9803-0000-028RA142
Sample ID: 176997002
Matrix: TS
Collect Date: 06-NOV-06
Receive Date: 01-DEC-06
Collector: Client
Moisture: 4.46%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0273	+/-0.0672	0.0286	+/-0.0673	0.144	pCi/g	BXL1	12/06/06	0752	592719		
Curium-242	U	0.00	+/-0.0711	0.00	+/-0.0711	0.0984	pCi/g						
Curium-243/244	U	0.032	+/-0.0627	0.00	+/-0.0628	0.0867	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0125	+/-0.0539	0.033	+/-0.0539	0.137	pCi/g	BXL1	12/06/06	0752	592720		
Plutonium-239/240	U	-0.00624	+/-0.0524	0.0233	+/-0.0525	0.117	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	8.45	+/-9.19	7.33	+/-9.23	15.4	pCi/g	BXL1	12/07/06	2143	592728		
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.550	+/-0.150	0.0569	+/-0.150	0.122	pCi/g	MJH1	12/05/06	1206	592926		
Americium-241	U	0.0165	+/-0.0484	0.0436	+/-0.0484	0.090	pCi/g						
Bismuth-212	U	0.283	+/-0.202	0.140	+/-0.202	0.296	pCi/g						
Bismuth-214		0.500	+/-0.0974	0.0298	+/-0.0974	0.0632	pCi/g						
Cesium-134	UI	0.00	+/-0.0298	0.021	+/-0.0298	0.0443	pCi/g						
Cesium-137		0.139	+/-0.0373	0.0171	+/-0.0373	0.0362	pCi/g						
Cobalt-60	U	0.0269	+/-0.0404	0.0173	+/-0.0404	0.0379	pCi/g						
Europium-152	U	-0.0142	+/-0.0453	0.0387	+/-0.0453	0.0814	pCi/g						
Europium-154	U	0.00256	+/-0.0532	0.0444	+/-0.0532	0.0974	pCi/g						
Europium-155	UI	0.00	+/-0.0614	0.0416	+/-0.0614	0.0861	pCi/g						
Lead-212		0.632	+/-0.0719	0.025	+/-0.0719	0.0518	pCi/g						
Lead-214		0.699	+/-0.0984	0.0287	+/-0.0984	0.0603	pCi/g						
Manganese-54	U	-0.0131	+/-0.0185	0.015	+/-0.0185	0.0322	pCi/g						
Niobium-94	U	-0.00946	+/-0.0164	0.0138	+/-0.0164	0.0295	pCi/g						
Potassium-40		10.9	+/-0.996	0.127	+/-0.996	0.286	pCi/g						
Radium-226		0.500	+/-0.0974	0.0298	+/-0.0974	0.0632	pCi/g						
Silver-108m	U	0.0138	+/-0.0167	0.015	+/-0.0167	0.0316	pCi/g						
Thallium-208		0.166	+/-0.0444	0.0149	+/-0.0444	0.0317	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00927	+/-0.0154	0.012	+/-0.0154	0.0267	pCi/g	KSD1	12/13/06	1410	592716		
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid - 3 pCi/g</i>													
Tritium	U	1.56	+/-1.31	1.03	+/-1.31	2.17	pCi/g	DFA1	12/05/06	1907	592689		

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 14, 2006

Client Sample ID: 9803-0000-028RA142
Sample ID: 176997002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	N
Rad Liquid Scintillation Analysis													
<i>Liquid Scint C14, Solid ALL FSS</i>													
Carbon-14	U	-0.0884	+/-0.109	0.0931	+/-0.109	0.190	pCi/g		AXD2	12/05/06	0146	592691	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-29.1	+/-40.9	33.4	+/-40.9	70.6	pCi/g		MXP1	12/08/06	0708	592687	
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	9.02	+/-11.8	9.46	+/-11.8	19.9	pCi/g		MXP1	12/14/06	0211	594908	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.160	+/-0.213	0.174	+/-0.213	0.360	pCi/g		KXR1	12/09/06	0642	592681	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MXP2	12/01/06	1457	592530

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA EERF C-01 Modified
8	DOE RESL Fe-1, Modified
9	DOE RESL Ni-1, Modified
10	DOE 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	84	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	85	(25%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	66	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	66	(25%-125%)
Iron-55	Liquid Scint Fe55, Solid-ALL FS	46	(15%-125%)

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 14, 2006

Client Sample ID: 9803-0000-028RA142 Project: YANK01204
Sample ID: 176997002 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	N
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			85		(25%-125%)					
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			85		(25%-125%)					
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			85		(15%-125%)					
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			85		(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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: December 14, 2006

Page 1 of 9

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 176997

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	592719										
QC1201239488	176997002	DUP									
Americium-241		U	0.0273	U	-0.0728	pCi/g	440	(0% - 100%)	BXL1	12/06/06	07:52
		Uncert:	+/-0.0672		+/-0.0692						
		TPU:	+/-0.0673		+/-0.0692						
Curium-242		U	0.00	U	0.00	pCi/g	0	(0% - 100%)			
		Uncert:	+/-0.0711		+/-0.0679						
		TPU:	+/-0.0711		+/-0.0679						
Curium-243/244		U	0.032	U	-0.0659	pCi/g	578	(0% - 100%)			
		Uncert:	+/-0.0627		+/-0.0431						
		TPU:	+/-0.0628		+/-0.0438						
QC1201239490	LCS										
Americium-241		13.2			14.2	pCi/g	108	(75%-125%)			
		Uncert:			+/-1.30						
		TPU:			+/-2.15						
Curium-242				U	0.00	pCi/g					
		Uncert:			+/-0.0615						
		TPU:			+/-0.0615						
Curium-243/244		11.4			11.8	pCi/g	104	(75%-125%)			
		Uncert:			+/-1.19						
		TPU:			+/-1.85						
QC1201239487	MB										
Americium-241				U	0.00277	pCi/g					
		Uncert:			+/-0.0183						
		TPU:			+/-0.0183						
Curium-242				U	0.00	pCi/g					
		Uncert:			+/-0.0625						
		TPU:			+/-0.0625						
Curium-243/244				U	0.0632	pCi/g					
		Uncert:			+/-0.0876						
		TPU:			+/-0.0879						
QC1201239489	176997002	MS									
Americium-241		13.4	U	0.0273	14.9	pCi/g	111	(75%-125%)			
		Uncert:		+/-0.0672	+/-1.47						
		TPU:		+/-0.0673	+/-2.39						
Curium-242		U	0.00	U	0.00	pCi/g					
		Uncert:		+/-0.0711	+/-0.0845						
		TPU:		+/-0.0711	+/-0.0845						
Curium-243/244		11.6	U	0.032	11.6	pCi/g	100	(75%-125%)			
		Uncert:		+/-0.0627	+/-1.30						
		TPU:		+/-0.0628	+/-1.96						
Batch	592720										
QC1201239492	176997002	DUP									
Plutonium-238		U	-0.0125	U	-0.0051	pCi/g	84	(0% - 100%)	BXL1	12/06/06	07:52

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 176997

Page 2 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time							
Rad Alpha Spec																		
Batch	592720																	
Plutonium-239/240	U	Uncert:	+/-0.0539	+/-0.0567	pCi/g	554	(0% - 100%)											
		TPU:	+/-0.0539	+/-0.0568														
		-0.00624	U	0.0133														
		Uncert:	+/-0.0524	+/-0.0528														
		TPU:	+/-0.0525	+/-0.0528														
QC1201239494	LCS																	
Plutonium-238			U	0.00716	pCi/g		(75%-125%)			12/06/06	07:52							
Plutonium-239/240	12.2	Uncert:		+/-0.0543	pCi/g	102	(75%-125%)											
		TPU:		+/-0.0543														
		12.5		12.5														
		Uncert:		+/-1.11														
		TPU:		+/-1.77														
QC1201239491	MB																	
Plutonium-238			U	-0.0199	pCi/g					12/06/06	07:52							
Plutonium-239/240	U	Uncert:		+/-0.0587	pCi/g													
		TPU:		+/-0.0587														
		0.0553		0.0553														
		Uncert:		+/-0.0767														
		TPU:		+/-0.0769														
QC1201239493	176997002	MS																
Plutonium-238		U	-0.0125	U	-0.005	pCi/g		(75%-125%)		12/06/06	07:52							
Plutonium-239/240	12.4	Uncert:	+/-0.0539	+/-0.0556	pCi/g	96	(75%-125%)											
		TPU:	+/-0.0539	+/-0.0556														
		-0.00624	U	11.9														
		Uncert:	+/-0.0524	+/-1.08														
		TPU:	+/-0.0525	+/-1.70														
Batch	592728																	
QC1201239522	176997002	DUP																
Plutonium-241		U	8.45	U	0.00	pCi/g	0	(0% - 100%)	BXL1	12/07/06	22:15							
Plutonium-241	141	Uncert:	+/-9.19	+/-7.34	pCi/g	102	(75%-125%)											
		TPU:	+/-9.23	+/-7.34														
		143		143														
		Uncert:		+/-13.9														
		TPU:		+/-19.5														
QC1201239521	MB																	
Plutonium-241			U	4.82	pCi/g					12/07/06	21:59							
Plutonium-241	143	Uncert:		+/-7.98	pCi/g	90	(75%-125%)											
		TPU:		+/-7.99														
		8.45	U	129														
		Uncert:	+/-9.19	+/-13.7														
		TPU:	+/-9.23	+/-18.5														
Rad Gamma Spec																		
Batch	592926																	
QC1201239984	176997001	DUP																
Actinium-228			0.678		0.547	pCi/g	21	(0% - 100%)	MJH1	12/05/06	13:51							
			Uncert:	+/-0.129	+/-0.179													
					+/-0.179													

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	592926										
Americium-241		TPU:		+/-0.129							
		U		-0.0431	U	0.00391	pCi/g	240	(0% - 100%)		
		Uncert:		+/-0.0915		+/-0.034					
Bismuth-212		TPU:		+/-0.0915		+/-0.034					
			U	0.445	U	0.305	pCi/g	38	(0% - 100%)		
		Uncert:		+/-0.178		+/-0.266					
Bismuth-214		TPU:		+/-0.178		+/-0.266					
				0.439		0.453	pCi/g	3	(0% - 100%)		
		Uncert:		+/-0.0626		+/-0.0916					
Cesium-134		TPU:		+/-0.0626		+/-0.0916					
		U		0.0289	U	0.0245	pCi/g	17	(0% - 100%)		
		Uncert:		+/-0.021		+/-0.0264					
Cesium-137		TPU:		+/-0.021		+/-0.0264					
				0.0835		0.0653	pCi/g	24	(0% - 100%)		
		Uncert:		+/-0.0317		+/-0.0443					
Cobalt-60		TPU:		+/-0.0317		+/-0.0443					
		UI		0.00	U	0.00358	pCi/g	161	(0% - 100%)		
		Uncert:		+/-0.0173		+/-0.0282					
Europium-152		TPU:		+/-0.0173		+/-0.0282					
		U		-0.00563	U	-0.00948	pCi/g	200	(0% - 100%)		
		Uncert:		+/-0.0367		+/-0.0791					
Europium-154		TPU:		+/-0.0367		+/-0.0791					
		U		0.00432	U	-0.00898	pCi/g	200	(0% - 100%)		
		Uncert:		+/-0.0449		+/-0.0904					
Europium-155		TPU:		+/-0.0449		+/-0.0904					
		U		0.0182	U	0.0571	pCi/g	103	(0% - 100%)		
		Uncert:		+/-0.040		+/-0.0582					
Lead-212		TPU:		+/-0.040		+/-0.0582					
				0.520		0.590	pCi/g	13	(0% - 20%)		
		Uncert:		+/-0.0465		+/-0.0742					
Lead-214		TPU:		+/-0.0465		+/-0.0742					
				0.453		0.533	pCi/g	16	(0%-20%)		
		Uncert:		+/-0.059		+/-0.0971					
Manganese-54		TPU:		+/-0.059		+/-0.0971					
		U		0.00348	U	0.00142	pCi/g	84	(0% - 100%)		
		Uncert:		+/-0.0136		+/-0.0289					
Niobium-94		TPU:		+/-0.0136		+/-0.0289					
		U		0.0151	U	0.0284	pCi/g	61	(0% - 100%)		
		Uncert:		+/-0.0144		+/-0.0229					
Potassium-40		TPU:		+/-0.0144		+/-0.0229					
				9.89		8.43	pCi/g	16	(0% - 20%)		
		Uncert:		+/-0.661		+/-0.917					
Radium-226		TPU:		+/-0.661		+/-0.917					
				0.439		0.453	pCi/g	3	(0% - 100%)		
		Uncert:		+/-0.0626		+/-0.0916					
Silver-108m		TPU:		+/-0.0626		+/-0.0916					
		U		-0.0025	U	-0.015	pCi/g	200	(0% - 100%)		
		Uncert:		+/-0.0127		+/-0.0199					

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Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	592926										
Thallium-208	TPU:	+/-0.0127		+/-0.0199							
		0.200		0.169	pCi/g	17		(0% - 100%)			
	Uncert:	+/-0.0261		+/-0.0493							
	TPU:	+/-0.0261		+/-0.0493							
QC1201239985 LCS											
Actinium-228			U	-0.123	pCi/g					12/05/06	13:52
	Uncert:			+/-0.544							
	TPU:			+/-0.544							
Americium-241	23.4			24.0	pCi/g		103	(75%-125%)			
	Uncert:			+/-3.07							
	TPU:			+/-3.07							
Bismuth-212			U	0.0333	pCi/g						
	Uncert:			+/-0.914							
	TPU:			+/-0.914							
Bismuth-214			U	0.130	pCi/g						
	Uncert:			+/-0.206							
	TPU:			+/-0.206							
Cesium-134			U	0.133	pCi/g						
	Uncert:			+/-0.133							
	TPU:			+/-0.133							
Cesium-137	9.52			9.78	pCi/g		103	(75%-125%)			
	Uncert:			+/-0.813							
	TPU:			+/-0.813							
Cobalt-60	14.0			15.0	pCi/g		107	(75%-125%)			
	Uncert:			+/-1.19							
	TPU:			+/-1.19							
Europium-152			U	0.202	pCi/g						
	Uncert:			+/-0.262							
	TPU:			+/-0.262							
Europium-154			U	-0.156	pCi/g						
	Uncert:			+/-0.229							
	TPU:			+/-0.229							
Europium-155			U	0.0232	pCi/g						
	Uncert:			+/-0.262							
	TPU:			+/-0.262							
Lead-212			U	-0.0408	pCi/g						
	Uncert:			+/-0.138							
	TPU:			+/-0.138							
Lead-214			U	-0.103	pCi/g						
	Uncert:			+/-0.209							
	TPU:			+/-0.209							
Manganese-54			U	0.0216	pCi/g						
	Uncert:			+/-0.122							
	TPU:			+/-0.122							
Niobium-94			U	0.0103	pCi/g						
	Uncert:			+/-0.103							
	TPU:			+/-0.103							
Potassium-40			U	0.579	pCi/g						

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	592926									
Radium-226		U	0.130	pCi/g			(75%-125%)			
	Uncert:		+/-1.05							
	TPU:		+/-1.05							
Silver-108m		U	0.00919	pCi/g						
	Uncert:		+/-0.206							
	TPU:		+/-0.206							
Thallium-208		U	-0.0144	pCi/g						
	Uncert:		+/-0.0985							
	TPU:		+/-0.0985							
Actinium-228		U	0.0608	pCi/g					12/05/06	12:07
	QC1201239983 MB									
	Uncert:		+/-0.102							
	TPU:		+/-0.102							
Americium-241		U	0.0119	pCi/g						
	Uncert:		+/-0.0357							
	TPU:		+/-0.0357							
Bismuth-212		U	0.0625	pCi/g						
	Uncert:		+/-0.0399							
	TPU:		+/-0.0399							
Bismuth-214		U	0.0062	pCi/g						
	Uncert:		+/-0.0752							
	TPU:		+/-0.0752							
Cesium-134		U	-0.0138	pCi/g						
	Uncert:		+/-0.0273							
	TPU:		+/-0.0273							
Cesium-137		U	-0.00708	pCi/g						
	Uncert:		+/-0.0101							
	TPU:		+/-0.0101							
Cobalt-60		U	-0.000127	pCi/g						
	Uncert:		+/-0.0101							
	TPU:		+/-0.0101							
Europium-152		U	-0.0187	pCi/g						
	Uncert:		+/-0.0107							
	TPU:		+/-0.0107							
Europium-154		U	-0.000434	pCi/g						
	Uncert:		+/-0.0262							
	TPU:		+/-0.0262							
Europium-155		U	-0.0196	pCi/g						
	Uncert:		+/-0.0271							
	TPU:		+/-0.0271							
Lead-212		U	0.0151	pCi/g						
	Uncert:		+/-0.0268							
	TPU:		+/-0.0268							
Lead-214		U	0.000615	pCi/g						
	Uncert:		+/-0.0271							
	TPU:		+/-0.0271							
	Uncert:		+/-0.0268							
	TPU:		+/-0.0268							

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Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	592926										
Manganese-54			U	0.00491	pCi/g						
	Uncert:			+/-0.00985							
	TPU:			+/-0.00985							
Niobium-94			U	0.00442	pCi/g						
	Uncert:			+/-0.00902							
	TPU:			+/-0.00902							
Potassium-40			U	0.198	pCi/g						
	Uncert:			+/-0.118							
	TPU:			+/-0.118							
Radium-226			U	0.0062	pCi/g						
	Uncert:			+/-0.0273							
	TPU:			+/-0.0273							
Silver-108m			U	-0.00381	pCi/g						
	Uncert:			+/-0.00812							
	TPU:			+/-0.00812							
Thallium-208			U	0.00755	pCi/g						
	Uncert:			+/-0.0106							
	TPU:			+/-0.0106							
Rad Gas Flow											
Batch	592716										
QC1201239472	176997002	DUP									
Strontium-90		U	0.00927	U	0.0119	pCi/g	0	(0% - 100%)	KSD1	12/13/06	14:10
	Uncert:		+/-0.0154		+/-0.0113						
	TPU:		+/-0.0154		+/-0.0113						
QC1201239474	LCS										
Strontium-90		1.47			1.37	pCi/g	93	(75%-125%)		12/13/06	14:34
	Uncert:				+/-0.104						
	TPU:				+/-0.109						
QC1201239471	MB										
Strontium-90					0.0494	pCi/g				12/13/06	14:10
	Uncert:				+/-0.0255						
	TPU:				+/-0.0256						
QC1201239473	176997002	MS									
Strontium-90		3.07	U	0.00927	3.48	pCi/g	113	(75%-125%)		12/13/06	14:06
	Uncert:			+/-0.0154	+/-0.281						
	TPU:			+/-0.0154	+/-0.294						
Rad Liquid Scintillation											
Batch	592681										
QC1201239374	177000005	DUP									
Technetium-99		U	0.0145	U	0.280	pCi/g	0	(0% - 100%)	KXR1	12/09/06	07:47
	Uncert:		+/-0.244		+/-0.466						
	TPU:		+/-0.244		+/-0.466						
QC1201239376	LCS										
Technetium-99		12.1			10.2	pCi/g	84	(75%-125%)		12/09/06	08:20
	Uncert:				+/-0.427						
	TPU:				+/-0.492						
QC1201239373	MB										
Technetium-99			U	0.0527	pCi/g					12/09/06	07:31

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	592681										
				Uncert:							
				TPU:							
QC1201239375	177000005	MS									
Technetium-99				12.1	U	0.0145		10.3	pCi/g	85	(75%-125%)
				Uncert:		+/-0.244		+/-0.521			12/09/06 08:04
				TPU:		+/-0.244		+/-0.578			
Batch	592687										
QC1201239387	176997002	DUP									
Iron-55					U	-29.1	U	-1.75	pCi/g	0	(0% - 100%) MXPI
				Uncert:		+/-40.9		+/-34.5			12/08/06 07:40
				TPU:		+/-40.9		+/-34.5			
QC1201239389	LCS										
Iron-55				626				630	pCi/g	101	(75%-125%)
				Uncert:				+/-52.4			12/08/06 08:13
				TPU:				+/-86.2			
QC1201239386	MB										
Iron-55					U	-2.72			pCi/g		12/08/06 07:24
				Uncert:		+/-37.0					
				TPU:		+/-37.0					
QC1201239388	176997002	MS									
Iron-55				636	U	-29.1		665	pCi/g	105	(75%-125%)
				Uncert:		+/-40.9		+/-58.2			12/08/06 07:57
				TPU:		+/-40.9		+/-97.6			
Batch	592689										
QC1201239395	176997002	DUP									
Tritium					U	1.56	U	0.624	pCi/g	0	(0% - 100%) DFA1
				Uncert:		+/-1.31		+/-1.25			12/05/06 11:33
				TPU:		+/-1.31		+/-1.25			
QC1201239397	LCS										
Tritium				15.7				17.8	pCi/g	113	(75%-125%)
				Uncert:				+/-1.95			12/05/06 12:38
				TPU:				+/-1.98			
QC1201239394	MB										
Tritium					U	-0.504			pCi/g		12/05/06 11:01
				Uncert:		+/-1.14					
				TPU:		+/-1.14					
QC1201239396	176997002	MS									
Tritium				16.7	U	1.56		15.1	pCi/g	91	(75%-125%)
				Uncert:		+/-1.31		+/-1.96			12/05/06 12:05
				TPU:		+/-1.31		+/-1.97			
Batch	592691										
QC1201239402	176997002	DUP									
Carbon-14					U	-0.0884	U	0.00148	pCi/g	0	(0% - 100%) 4XD2
				Uncert:		+/-0.109		+/-0.116			12/05/06 05:16
				TPU:		+/-0.109		+/-0.116			
QC1201239404	LCS										
Carbon-14				8.41				7.09	pCi/g	84	(75%-125%)
				Uncert:				+/-0.212			12/05/06 07:23
				TPU:				+/-0.239			

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Parmname	NOM	Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	592691										
QC1201239401	MB										
Carbon-14			U	-0.0163	pCi/g					12/05/06	02:50
		Uncert:		+/-0.111							
		TPU:		+/-0.111							
QC1201239403	176997002	MS									
Carbon-14		8.41	U	-0.0884	6.93	pCi/g	82	(75%-125%)		12/05/06	06:20
		Uncert:		+/-0.109	+/-0.208						
		TPU:		+/-0.109	+/-0.235						
Batch	594908										
QC1201244428	176997002	DUP									
Nickel-63			U	9.02	U	3.89	pCi/g	0	(0% - 100%)	MXPI	12/14/06 02:43
		Uncert:		+/-11.8	+/-11.2						
		TPU:		+/-11.8	+/-11.2						
QC1201244430	LCS										
Nickel-63		723			653	pCi/g	90	(75%-125%)		12/14/06	03:16
		Uncert:			+/-29.8						
		TPU:			+/-40.0						
QC1201244427	MB										
Nickel-63			U	7.73	pCi/g					12/14/06	02:27
		Uncert:		+/-11.3							
		TPU:		+/-11.3							
QC1201244429	176997002	MS									
Nickel-63		723	U	9.02	665	pCi/g	92	(75%-125%)		12/14/06	03:00
		Uncert:		+/-11.8	+/-31.0						
		TPU:		+/-11.8	+/-41.2						

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

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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 acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

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

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00666

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use-Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: Relog for Sr-90 per 12/11/06 request - 177540 176896%	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.														
Sample Designation	Date	Time									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 #: 06-1281 ^{4/16/06} 1505 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA														
1) Relinquished By			Date/Time		2) Received By			Date/Time			Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
3) Relinquished By			Date/Time		4) Received By			Date/Time			Bill of Lading #			

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00667

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

Analyses Requested

Lab Use Only

Comments:

176896%

Sample Designation

Date

Time

Media
CodeSample
Type
CodeContainer
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

11/21/06
1505

SSWP# NA

☒ LTP QA☐ Radwaste QA☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Internal Container

Temp.: ____ Deg.

C

Custody Sealed?

Y ☐ N ☐

Custody Seal

Intact?

Y ☐ N ☐

1) Relinquished By

Date/Time

2) Received By

Date/Time

3) Relinquished By

Date/Time

4) Received By

Date/Time

Bill of Lading #

Connecticut Yankee Atomic Power Company						Chain of Custody Form						No. 2006-00671	
362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556													
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only	
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments:
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones													
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.													
Sample Designation	Date	Time										Comment. Preservation	Lab Sample ID
9522-0001-016F	11/15/06	0735	TS	G	BP	X							
NOTES: PO #: 002332 MSR #: 06-1281 15C15 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA						Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other			Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>				
1) Relinquished By		Date/Time		2) Received By		Date/Time		Bill of Lading #					
3) Relinquished By		Date/Time		4) Received By		Date/Time							
				Chase		11/30/06							

Chain of Custody Form

No. 2006-00677

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

[illegible]

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						Analyses Requested					Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171, Attn. Cheryl Jones													
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.													
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code						Comment, Preservation	Lab Sample ID	
9522-0001-024-I	11/21/06	1254	TS	G	BP	X							
NOTES: PO #: 002332 MSR #: 06-1381 ^{221425/6} ₁₅₀₅ SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA													
1) Relinquished By _____ Date/Time _____			2) Received By <i>[Signature]</i> 11/30/06 Date/Time 10:10			Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other			Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>				
3) Relinquished By _____ Date/Time _____			4) Received By _____ Date/Time _____			Bill of Lading # _____							

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 ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature See Continuation sheet
5. Vermiculite/packing materials is: Wet ☐ Dry ☒
6. Number of samples in shipping container: _____
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☒ tape _____ hazard labels
_____ custody seals _____ appropriate sample labels

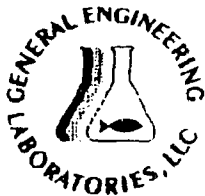
9. Samples are:

☒ in good condition _____ leaking
_____ broken _____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☒ No ☐
11. Description of anomalies (include sample numbers): not signed

Sample Custodian/Laboratory: CG Senior Date: 11-30-06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankee Atomic</u>	SDG/ARCOC/Work Order: <u>176890, 176896</u>
Date Received: <u>11/30/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>[Signature]</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant / ice bags blue ice dry ice none other (describe) <u>See Below</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?			<input checked="" type="checkbox"/>	<u>not signed</u>
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7928</u>	<u>9092</u>	<u>2742-28°</u>	<u>7928 5266 8785-16°</u> <u>7928 9092 2731-17°</u> <u>7928 -9092 2753-17°</u>
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?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>150 CPM</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
D Regulated as a Foreign Soil?				
PM (or PMA) review of Hazard classification:				Initials: <u>[Signature]</u> Date: <u>11/30/06</u>



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 Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00647

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: 175906% - FSS ALL 175908% - FSSGAM 175908% - FSSGAM		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.															
Sample Designation	Date	Time									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 ¹⁴⁶⁰⁻¹⁴⁶¹ ₁₄₆₀ SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 17° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>[Signature]</i>			Date/Time 11/8/06 1500		2) Received By <i>[Signature]</i>			Date/Time 11-10-06 9:15		Bill of Lading # 7985 3687 ⁸³²⁷ ₁₄₂₂					
3) Relinquished By			Date/Time		4) Received By			Date/Time							

Chain of Custody Form

No. 2006-00648

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

[illegible]

Figure 1. Sample Check-in List

Date/Time Received: 11-10-06 9:15
SDG#: MSL #06-1460
Work Order Number: 175906, 175908
Shipping Container ID: 798538898327 Chain of Custody #: 2006-00647, 2006-00654, 2006-00648

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: Tm Sds Date: 11-10-06
Telephoned to: _____ On _____ By _____

80 cfm



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCO/Work Order: <u>175906, 175908</u>
Date Received: <u>11-10-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>TS</u>	<u>[Signature]</u>

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 #
A Radiological Classification?	<input checked="" type="checkbox"/>			*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>80 cpm</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Comments:
				Hazard Class Shipped:
				UN#:

PM (or PMA) review of Hazard classification:

Initials

Date:

Connecticut Yankee Atomic Power Company 362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556						Chain of Custody Form						No. 2006-00655		
Project Name: Haddam Neck Decommissioning						Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones													<i>Off 11/14/06</i> 175874 - FSSALL FSSGAM 175901 - FSSGAM FSS ALL	
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.														
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code							Comment, Preservation	Lab Sample ID	
9522-003-001F	11/13/06	1255	TS	G	BP	X								
9522-003-002F	11/13/06	1256	TS	G	BP	X								
9522-003-003F	11/13/06	1300	TS	G	BP	X								
9522-003-005F	11/13/06	1303	TS	G	BP	X								
9522-003-004F	11/13/06	1312	TS	G	BP	X								
9522-003-006F	11/13/06	1315	TS	G	BP		X							
9522-003-007F	11/13/06	1316	TS	G	BP	X								
9522-003-008F	11/13/06	1318	TS	G	BP	X								
9522-003-008FS	11/13/06	1318	TS	G	BP	X								

NOTES: PO #: 002332 MSR #: 06-1381-¹⁴⁵⁹ SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

1) Relinquished By *[Signature]* Date/Time *11/14/06 0800*

3) Relinquished By _____ Date/Time _____

2) Received By *Tan Sze* Date/Time *11-10-06 9:15*

4) Received By _____ Date/Time _____

Samples Shipped Via: ☒ Fed Ex ☐ UPS ☐ Hand

☐ Other

Bill of Lading # *7985 3891 5025*

Internal Container Temp.: *18°* Deg. C

Custody Sealed? Y ☒ N ☐

Custody Seal Intact? Y ☒ N ☐

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00656

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments: 175874 - FSSGAM 175901 - FSSALL		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.															
Sample Designation	Date	Time										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 <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: 18° Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>[Signature]</i>			Date/Time 11/9/06 0800			2) Received By <i>Tan [Signature]</i>			Date/Time 11-10-06 9:15			Bill of Lading # 7985 3891 5025			
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 5005 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: Tar Sun Date: 11-10-06

Telephoned to: _____ On _____ By 70 CPar



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCO/Work Order: <u>175874, 175901</u>
Date Received: <u>11-10-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>TS</u>	<u>[Signature]</u>

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				<u>COC # - 2006-00655, 00656</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?	<input checked="" type="checkbox"/>			*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>70CPM</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Comments:
				Hazard Class Shipped:
				UN#:

PM (or PMA) review of Hazard classification: ☒ Initials TS 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			Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested						Lab Use Only	
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL						Comments:
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones													
Priority: <input type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input checked="" type="checkbox"/> 7 D. <input type="checkbox"/> 3 D.													
Sample Designation	Date	Time										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						
9522-0004-005E	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	0748	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 #: 06-13811-15-05 1506 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA						Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other						Internal Container Temp.: _____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By _____ Date/Time _____			2) Received By <u>Charles Lause</u> Date/Time <u>11/30/06 10:10</u>			Bill of Lading # _____							
3) Relinquished By _____ Date/Time _____			4) Received By _____ Date/Time _____										

[illegible]

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 ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☐ No ☒
4. Cooler temperature See continuation sheet
5. Vermiculite/packing materials is: Wet ☐ Dry ☒
6. Number of samples in shipping container: _____
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:	
<input checked="" type="checkbox"/> tape	_____ hazard labels
_____ custody seals	_____ appropriate sample labels

9. Samples are:	
<input checked="" type="checkbox"/> 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): not signed

Sample Custodian/Laboratory: CG Date: 11-30-06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankel Atomic</u>		SDG/ARCOC/Work Order: <u>176890, 176896</u>	
Date Received: <u>11/30/06</u>		PM(A) Review (ensure non-conforming items are resolved prior to signing):	
Received By: <u>[Signature]</u>		<u>[Signature]</u>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Coolant # ice bags blue ice dry ice none other describe <u>See Below</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>not signed</u>
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7928 9092 2742-28°</u> <u>7928 9092 2710-17°</u> <u>7980 5266 8796-18</u>			<u>7980 5266 8785-16°</u> <u>7988 9092 2731-17°</u> <u>7928-9092 2753-17°</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum Counts Observed*: <u>150 CPM</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazard Class Shipped: UN#:
D Regulated as a Foreign Soil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PM (or PMA) review of Hazard classification: [Signature] Initials [Signature] 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

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](mailto:cj@gel.com)  
Web: [www.gel.com](http://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         | <u>9522-0004-001F</u> |           |
| 9522-0001-021-I        | 9522-0004-002F        |           |
| <u>9522-0001-024-I</u> | 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        |           |
| <u>9522-0002-016F</u>  | 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](mailto:cj@gel.com)  
Web: [www.gel.com](http://www.gel.com)

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# **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**

|                                          |                                  |
|------------------------------------------|----------------------------------|
| <b>Product:</b>                          | <b>GFPC, Sr90, solid-ALL FSS</b> |
| 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                           |

| <b>Sample ID</b> | <b>Client ID</b>                                 |
|------------------|--------------------------------------------------|
| 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**

|                                          |                                  |
|------------------------------------------|----------------------------------|
| <b>Product:</b>                          | <b>GFPC, Sr90, solid-ALL FSS</b> |
| 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                           |

| <b>Sample ID</b> | <b>Client ID</b>                                 |
|------------------|--------------------------------------------------|
| 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**

|                                          |                                  |
|------------------------------------------|----------------------------------|
| <b>Product:</b>                          | <b>GFPC, Sr90, solid-ALL FSS</b> |
| 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                           |

| <b>Sample ID</b> | <b>Client ID</b>                                 |
|------------------|--------------------------------------------------|
| 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 repped 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 calculate 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:                      12/22/16

# 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:

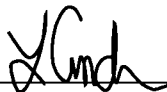
- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- ND The analyte concentration is not detected above the detection limit.

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  
Sample ID: 177540001  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 29.3%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |      |          |      |        |       |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |        |           |        |       |      |          |      |        |       |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-001F  
Sample ID: 177540001

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-002F  
Sample ID: 177540002  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 28.3%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA   | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|-------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |       |       |    |         |          |      |        |   |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-002F  
Sample ID: 177540002

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-003F  
Sample ID: 177540003  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 32.4%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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.

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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: 9522-0001-003F  
Sample ID: 177540003

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-004F  
Sample ID: 177540004  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 42%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC    | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | A |
|-------------------------------------------|-----------|--------|-------------|-------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |       |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |       |           |        |       |    |         |          |      |        |   |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-004F  
Sample ID: 177540004

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-005F  
Sample ID: 177540005  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 38.1%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |   |
| 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

# 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: 9522-0001-005F  
Sample ID: 177540005

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-006F  
Sample ID: 177540006  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 44.9%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC    | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|-------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |       |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |       |           |        |       |    |         |          |      |        |   |
| 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

# 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: 9522-0001-006F  
Sample ID: 177540006

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-009F  
Sample ID: 177540007  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 12.7%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |          |             |        |           |        |       |    |         |          |      |        |   |
| 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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## 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: 9522-0001-009F  
Sample ID: 177540007

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|

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: 9522-0001-010F  
Sample ID: 177540008  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 29.2%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| 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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## 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: 9522-0001-010F  
Sample ID: 177540008

Project: YANK01204  
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: 9522-0001-011F  
Sample ID: 177540009  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 18.5%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |
| 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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## Certificate of Analysis

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-011F  
Sample ID: 177540009

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0001-012F  
Sample ID: 177540010  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 12.5%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA   | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|-------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |       |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |       |       |    |         |          |      |        |
| 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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## Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

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Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-012F  
Sample ID: 177540010

Project: YANK01204  
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: 9522-0001-013F  
Sample ID: 177540011  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 10.1%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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

# GENERAL ENGINEERING LABORATORIES, LLC

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## Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-013F  
Sample ID: 177540011

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

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

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy—Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

# GENERAL ENGINEERING LABORATORIES, LLC

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## Certificate of Analysis

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

East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-015F  
Sample ID: 177540012  
Matrix: TS  
Collect Date: 09-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 12%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |   |
| 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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## 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: 9522-0001-015F  
Sample ID: 177540012

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522–0001–016F  
Sample ID: 177540013  
Matrix: TS  
Collect Date: 15–NOV–06  
Receive Date: 30–NOV–06  
Collector: Client  
Moisture: 23.5%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid–ALL FSS</i>          |           |          |             |        |           |        |       |    |         |          |      |        |
| 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

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Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-016F  
Sample ID: 177540013

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0001-021-I  
Sample ID: 177540014  
Matrix: TS  
Collect Date: 16-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 16.3%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| 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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## 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: 9522-0001-021-I  
Sample ID: 177540014

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|----|

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: 9522-0001-024-I  
Sample ID: 177540015  
Matrix: TS  
Collect Date: 21-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 44.9%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |   |
| 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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## 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: 9522-0001-024-I  
Sample ID: 177540015

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-002F  
Sample ID: 177540016  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 18.1%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | NA |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|----|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |    |         |          |      |        |    |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |        |           |        |       |    |         |          |      |        |    |
| 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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## 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: 9522-0002-002F  
Sample ID: 177540016

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-003F  
Sample ID: 177540017  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 14.1%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |        |           |        |       |    |         |          |      |        |
| 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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## 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: 9522-0002-003F  
Sample ID: 177540017

Project: YANK01204  
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

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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: 9522-0002-005F  
Sample ID: 177540018  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 17.1%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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

# GENERAL ENGINEERING LABORATORIES, LLC

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## Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-005F  
Sample ID: 177540018

Project: YANK01204  
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

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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: 9522-0002-007F  
Sample ID: 177540019  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 20.3%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |      |          |      |        |       |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |        |           |        |       |      |          |      |        |       |
| 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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## 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: 9522-0002-007F  
Sample ID: 177540019

Project: YANK01204  
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

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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: 9522-0002-008F  
Sample ID: 177540020  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 28.1%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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

# 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: 9522-0002-008F  
Sample ID: 177540020

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|---|

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  
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  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-010F  
Sample ID: 177540021

Project: YANK01204  
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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-011F  
Sample ID: 177540022  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 20.3%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC    | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|---------|-------------|-------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |       |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-011F  
Sample ID: 177540022

Project: YANK01204  
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: 9522-0002-012F  
Sample ID: 177540023  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 23%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC    | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|---------|-------------|-------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |       |           |        |       |      |          |      |        |       |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |       |           |        |       |      |          |      |        |       |
| 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 :

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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

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East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-012F  
Sample ID: 177540023

Project: YANK01204  
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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Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-013F  
Sample ID: 177540024  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 22.5%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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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## 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: 9522-0002-013F  
Sample ID: 177540024

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|

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: 9522–0002–014F  
Sample ID: 177540025  
Matrix: TS  
Collect Date: 30–OCT–06  
Receive Date: 10–NOV–06  
Collector: Client  
Moisture: 22.7%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid–ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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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## 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: 9522-0002-014F  
Sample ID: 177540025

Project: YANK01204  
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

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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: 9522-0002-016F  
Sample ID: 177540026  
Matrix: TS  
Collect Date: 30-OCT-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 42.8%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0002-016F  
Sample ID: 177540026

Project: YANK01204  
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: 9522-0003-001F  
Sample ID: 177540027  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 5.5%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |   |
| 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

# 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: 9522-0003-001F  
Sample ID: 177540027

Project: YANK01204  
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: 9522-0003-002F  
Sample ID: 177540028  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 8.78%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU      | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |          |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |          |        |       |    |         |          |      |        |   |
| 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
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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: 9522-0003-002F  
Sample ID: 177540028

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | Notes |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|-------|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|-------|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0003-003F  
Sample ID: 177540029  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 19.8%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU      | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |          |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |          |        |       |    |         |          |      |        |
| 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

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East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-003F  
Sample ID: 177540029

Project: YANK01204  
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: 9522-0003-004F  
Sample ID: 177540030  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 19.6%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA   | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|-------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |       |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |       |       |    |         |          |      |        |   |
| 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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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: 9522-0003-004F  
Sample ID: 177540030

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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

Report Date: December 22, 2006

Client Sample ID: 9522-0003-005F  
Sample ID: 177540031  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 9.28%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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        |
|--------|--------------------|
| I      | 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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Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-005F  
Sample ID: 177540031

Project: YANK01204  
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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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: 9522-0003-007F  
Sample ID: 177540032  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 19.4%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |        |           |        |       |    |         |          |      |        |   |
| 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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East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-007F  
Sample ID: 177540032

Project: YANK01204  
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: 9522-0003-008F  
Sample ID: 177540033  
Matrix: TS  
Collect Date: 03-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 26.9%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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
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Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-008F  
Sample ID: 177540033

Project: YANK01204  
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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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: 9522-0003-009F  
Sample ID: 177540034  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 10.9%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC      | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|---------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |         |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |         |           |        |       |    |         |          |      |        |
| 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

# 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: 9522-0003-009F  
Sample ID: 177540034

Project: YANK01204  
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: 9522-0003-010F  
Sample ID: 177540035  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 4.79%

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

| 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

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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: 9522-0003-010F  
Sample ID: 177540035

Project: YANK01204  
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

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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: 9522-0003-011F  
Sample ID: 177540036  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 8.03%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |          |             |        |           |        |       |    |         |          |      |        |
| 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 :

- \* 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

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Address : 362 Injun Hollow Rd

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

Report Date: December 22, 2006

Client Sample ID: 9522-0003-011F  
Sample ID: 177540036

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|

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

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

Report Date: December 22, 2006

Client Sample ID: 9522-0003-012F  
Sample ID: 177540037  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 12.5%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC      | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|---------|-------------|---------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |         |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |         |           |        |       |    |         |          |      |        |   |
| 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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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: 9522-0003-012F  
Sample ID: 177540037

Project: YANK01204  
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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East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-013F  
Sample ID: 177540038  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 14.2%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC      | TPU        | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|---------|-------------|---------|------------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |         |            |        |       |    |         |          |      |        |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-013F  
Sample ID: 177540038

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|----|

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  
Sample ID: 177540039  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 4.71%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0003-014F  
Sample ID: 177540039

Project: YANK01204  
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: 9522-0003-015F  
Sample ID: 177540040  
Matrix: TS  
Collect Date: 06-NOV-06  
Receive Date: 10-NOV-06  
Collector: Client  
Moisture: 4.81%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |
| 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
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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: 9522-0003-015F  
Sample ID: 177540040

Project: YANK01204  
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

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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  
Sample ID: 177540041  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 6.28%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC    | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|-------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |       |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |       |           |        |       |    |         |          |      |        |
| 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.

# 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: 9522-0004-001F  
Sample ID: 177540041

Project: YANK01204  
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: 9522-0004-002F  
Sample ID: 177540042  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 3.79%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU      | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |          |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |          |        |       |    |         |          |      |        |
| 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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## Certificate of Analysis

Company : Connecticut Yankee Atomic Power  
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East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-002F  
Sample ID: 177540042

Project: YANK01204  
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

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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: 9522-0004-003F  
Sample ID: 177540043  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 3.6%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|------|----------|------|--------|-------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |      |          |      |        |       |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |      |          |      |        |       |   |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-003F  
Sample ID: 177540043

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time Batch | NA |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|----|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|----|

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: 9522-0004-005F  
Sample ID: 177540045  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 5.44%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC    | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|---------|-------------|-------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |       |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |         |             |       |           |        |       |    |         |          |      |        |   |
| 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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## Certificate of Analysis

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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: 9522-0004-005F  
Sample ID: 177540045

Project: YANK01204  
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: 9522-0004-006F  
Sample ID: 177540046  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 4.7%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC     | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|---------|-------------|--------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |        |           |        |       |      |          |      |        |       |
| 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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## 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: 9522-0004-006F  
Sample ID: 177540046

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------------|---|

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: 9522-0004-008F  
Sample ID: 177540047  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 6.58%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU      | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |          |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |          |        |       |    |         |          |      |        |
| 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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## 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: 9522-0004-008F  
Sample ID: 177540047

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

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: 9522-0004-009F  
Sample ID: 177540048  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 9.4%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-009F  
Sample ID: 177540048

Project: YANK01204  
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.

# 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: 9522-0004-010F

Sample ID: 177540049

Matrix: TS

Collect Date: 22-NOV-06

Receive Date: 30-NOV-06

Collector: Client

Moisture: 5.53%

Project: YANK01204

Client ID: YANK001

Vol. Recv.:

| Parameter                                 | Qualifier | Result | Uncertainty | LC    | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|--------|-------------|-------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |       |           |        |       |      |          |      |        |       |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |       |           |        |       |      |          |      |        |       |
| 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

# 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: 9522-0004-010F  
Sample ID: 177540049

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | A |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|---|

Y QC Samples were not spiked with this compound

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

# GENERAL ENGINEERING LABORATORIES, LLC

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## Certificate of Analysis

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

East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-011F  
Sample ID: 177540050  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 8.26%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA   | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|-------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |       |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |       |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-011F  
Sample ID: 177540050

Project: YANK01204  
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**  
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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  
Sample ID: 177540051  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 68.2%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC    | TPU      | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|-------|----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |       |          |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |       |          |        |       |    |         |          |      |        |   |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-012F  
Sample ID: 177540051

Project: YANK01204  
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.

# GENERAL ENGINEERING LABORATORIES, LLC

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## Certificate of Analysis

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

East Hampton, Connecticut 06424  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-013F  
Sample ID: 177540052  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 78.5%

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

| Parameter                                 | Qualifier | Result   | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|----------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |          |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |          |             |        |           |        |       |    |         |          |      |        |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522–0004–013F  
Sample ID: 177540052

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

| Parameter | Qualifier | Result | Uncertainty | LC | TPU | MDA | Units | DF | Analyst | Date | Time | Batch | Notes |
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|-------|
|-----------|-----------|--------|-------------|----|-----|-----|-------|----|---------|------|------|-------|-------|

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: 9522-0004-014F  
Sample ID: 177540053  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 51.1%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  | N |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|---|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |   |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |   |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-014F  
Sample ID: 177540053

Project: YANK01204  
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.

# 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: 9522-0004-015F  
Sample ID: 177540054  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 10.3%

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

| Parameter                                 | Qualifier | Result | Uncertainty | LC     | TPU       | MDA    | Units | DF | Analyst | Date     | Time | Batch  |
|-------------------------------------------|-----------|--------|-------------|--------|-----------|--------|-------|----|---------|----------|------|--------|
| <b>Rad Gas Flow Proportional Counting</b> |           |        |             |        |           |        |       |    |         |          |      |        |
| <i>GFPC, Sr90, solid-ALL FSS</i>          |           |        |             |        |           |        |       |    |         |          |      |        |
| 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  
Contact: Mr. Jack McCarthy  
Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-015F  
Sample ID: 177540054

Project: YANK01204  
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: 9522-0004-016F  
Sample ID: 177540055  
Matrix: TS  
Collect Date: 22-NOV-06  
Receive Date: 30-NOV-06  
Collector: Client  
Moisture: 14.8%

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

| Parameter                                 | Qualifier | Result  | Uncertainty | LC    | TPU       | MDA    | Units | DF   | Analyst  | Date | Time   | Batch |
|-------------------------------------------|-----------|---------|-------------|-------|-----------|--------|-------|------|----------|------|--------|-------|
| <b>Rad Gas Flow Proportional Counting</b> |           |         |             |       |           |        |       |      |          |      |        |       |
| 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

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: December 22, 2006

Client Sample ID: 9522-0004-016F  
Sample ID: 177540055

Project: YANK01204  
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.

# 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

Page 1 of 2

Client : Connecticut Yankee Atomic Power  
362 Injun Hollow Rd

Contact: East Hampton, Connecticut  
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 |           |        | U    | 4.92              | 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          |

# GENERAL ENGINEERING LABORATORIES, LLC

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## QC Summary

Workorder: 177540

Page 2 of 2

| 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 -0.0168         | 3.52      | pCi/g |      | 83   | (75%-125%) |       | 12/21/06 | 20:14 |
|                           |        | Uncert: +/-0.0162 | +/-0.245  |       |      |      |            |       |          |       |
|                           |        | TPU: +/-0.0162    | +/-0.257  |       |      |      |            |       |          |       |

### 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 acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

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SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

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**ATTACHMENT 4 (DQA RESULTS)**

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SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

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**ATTACHMENT 4A  
(PRELIMINARY DATA REVIEW)**

SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD  
Attachment 4

**Survey Unit:** 9522-0003  
**Area Description** Southeast Grounds (non-protected)  
**Classification** 1  
**Survey Media** Surface Soils  
**Type of Survey** Final Status Survey  
**Number of Measurements** 16 Static, 19 Investigative

**STATISTICS on TOTAL  
POPULATION**

|                                    | Cs-137   | Co-60     | Sr-90     |
|------------------------------------|----------|-----------|-----------|
| <b>DCGL<sub>op</sub> (pCi/g):</b>  | 5.38E+00 | 2.59E+00  | 1.05E+00  |
| <b>Minimum Value:</b>              | 0.00E+00 | -1.70E-02 | -2.27E-02 |
| <b>Maximum Value:</b>              | 1.01E+00 | 3.67E-02  | 1.21E-01  |
| <b>Mean:</b>                       | 1.98E-01 | 7.06E-03  | 2.54E-02  |
| <b>Median:</b>                     | 8.98E-02 | 6.70E-03  | 1.76E-02  |
| <b>Standard Deviation:</b>         | 2.38E-01 | 1.10E-02  | 4.02E-02  |
| <b>DCGL<sub>sur</sub> (pCi/g):</b> | 2.90E+00 |           |           |

**STATISTICS on NON-  
PARAMETRIC POPULATION**

|                                   | Cs-137   | Co-60     | Sr-90     |
|-----------------------------------|----------|-----------|-----------|
| <b>DCGL<sub>op</sub> (pCi/g):</b> | 5.38E+00 | 2.59E+00  | 1.05E+00  |
| <b>Minimum Value:</b>             | 2.42E-02 | -1.70E-02 | -2.27E-02 |
| <b>Maximum Value:</b>             | 7.30E-01 | 3.67E-02  | 1.21E-01  |
| <b>Mean:</b>                      | 2.26E-01 | 9.07E-03  | 2.54E-02  |
| <b>Median:</b>                    | 9.65E-02 | 9.20E-03  | 1.76E-02  |
| <b>Standard Deviation:</b>        | 2.41E-01 | 1.38E-02  | 4.02E-02  |
| <b>Nuclide Distribution:</b>      | 0.826    | 0.036     | 0.138     |

| Sample ID       | GPS Coordinates |           | Cs-137   |       |          |            | Co-60     |       |          |            | Sr-90     |         |          |            | Fraction of DCGL |
|-----------------|-----------------|-----------|----------|-------|----------|------------|-----------|-------|----------|------------|-----------|---------|----------|------------|------------------|
|                 |                 |           | Result   | 2σ    | MDA      | Identified | Result    | 2σ    | MDA      | Identified | Result    | 2σ      | MDA      | Identified |                  |
|                 | North           | East      | (pCi/g)  |       | (pCi/g)  |            | (pCi/g)   |       | (pCi/g)  |            |           | (pCi/g) |          |            |                  |
| 9522-0003-001F  | 236413.31       | 669166.75 | 3.11E-02 | 0.037 | 4.51E-02 |            | 6.20E-03  | 0.025 | 4.64E-02 |            | 1.11E-02  | 0.020   | 3.37E-02 |            | 0.019            |
| 9522-0003-002F  | 236379.26       | 669147.10 | 1.59E-01 | 0.030 | 3.06E-02 | +          | -2.91E-03 | 0.018 | 3.28E-02 |            | 1.21E-01  | 0.028   | 3.44E-02 | +          | 0.144            |
| 9522-0003-003F  | 236379.26       | 669186.41 | 3.42E-01 | 0.053 | 4.66E-02 | +          | 1.14E-02  | 0.026 | 4.93E-02 |            | 4.78E-02  | 0.024   | 3.59E-02 | +          | 0.113            |
| 9522-0003-004F  | 236379.26       | 669225.73 | 7.13E-02 | 0.027 | 3.48E-02 | +          | -5.45E-03 | 0.027 | 3.53E-02 |            | 5.04E-02  | 0.026   | 3.80E-02 | +          | 0.059            |
| 9522-0003-005F  | 236345.21       | 669127.44 | 9.08E-02 | 0.033 | 3.56E-02 | +          | -6.60E-03 | 0.015 | 2.67E-02 |            | 3.77E-02  | 0.022   | 3.27E-02 | +          | 0.050            |
| 9522-0003-006F  | 236345.21       | 669166.75 | 1.37E-01 | 0.040 | 2.94E-02 | +          | 8.71E-03  | 0.019 | 3.39E-02 |            | 3.37E-02  | 0.022   | 3.29E-02 | +          | 0.061            |
| 9522-0003-007F  | 236345.21       | 669206.07 | 6.13E-01 | 0.060 | 4.64E-02 | +          | 3.03E-02  | 0.028 | 5.82E-02 | +          | -2.27E-02 | 0.017   | 3.28E-02 |            | 0.104            |
| 9522-0003-008F  | 236345.21       | 669245.39 | 7.30E-01 | 0.049 | 2.93E-02 | +          | 1.18E-02  | 0.017 | 3.16E-02 |            | 4.47E-02  | 0.014   | 2.12E-02 | +          | 0.183            |
| 9522-0003-009F  | 236345.21       | 669284.70 | 6.95E-01 | 0.065 | 4.05E-01 | +          | 9.68E-03  | 0.032 | 4.62E-02 |            | 2.40E-02  | 0.012   | 1.97E-02 | +          | 0.156            |
| 9522-0003-0010F | 236311.16       | 669107.78 | 7.69E-02 | 0.027 | 2.59E-02 | +          | 1.15E-02  | 0.019 | 3.35E-02 |            | -5.79E-03 | 0.011   | 1.98E-02 |            | 0.013            |



SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD  
Attachment 4

| Sample ID        | GPS Coordinates |           | Cs-137   |       |          |            | Co-60     |       |          |            | Sr-90     |       |          |            | Fraction of DCGL |
|------------------|-----------------|-----------|----------|-------|----------|------------|-----------|-------|----------|------------|-----------|-------|----------|------------|------------------|
|                  |                 |           | Result   | 2σ    | MDA      | Identified | Result    | 2σ    | MDA      | Identified | Result    | 2σ    | MDA      | Identified |                  |
|                  | North           | East      | (pCi/g)  |       | (pCi/g)  |            | (pCi/g)   |       | (pCi/g)  |            | (pCi/g)   |       | (pCi/g)  |            |                  |
| 9522-0003-0011F  | 236311.16       | 669147.10 | 2.42E-02 | 0.023 | 3.60E-02 | +          | 9.98E-03  | 0.017 | 3.42E-02 |            | -7.57E-03 | 0.013 | 2.29E-02 |            | 0.001            |
| 9522-0003-0012F  | 236311.16       | 669186.41 | 7.76E-02 | 0.036 | 3.67E-02 | +          | -1.70E-02 | 0.021 | 3.54E-02 |            | -8.30E-03 | 0.011 | 2.04E-02 |            | 0.000            |
| 9522-0003-0013F  | 236311.16       | 669225.73 | 2.87E-01 | 0.049 | 3.67E-02 | +          | 5.72E-03  | 0.021 | 4.11E-02 |            | 7.89E-03  | 0.010 | 1.63E-02 |            | 0.063            |
| 9522-0003-0014F  | 236277.11       | 669127.44 | 9.63E-02 | 0.038 | 2.90E-02 | +          | 2.71E-02  | 0.020 | 4.22E-02 | +          | -1.45E-02 | 0.010 | 1.89E-02 |            | 0.015            |
| 9522-0003-0015F  | 236277.11       | 669166.75 | 9.66E-02 | 0.031 | 3.52E-02 | +          | 3.67E-02  | 0.021 | 4.66E-02 | +          | -6.51E-03 | 0.017 | 2.92E-02 |            | 0.026            |
| 9522-0003-0016F  | 236277.11       | 669206.07 | 8.51E-02 | 0.035 | 2.79E-02 | +          | 7.91E-03  | 0.016 | 3.14E-02 |            | 9.39E-02  | 0.027 | 2.97E-02 | +          | 0.108            |
| 9522-0003-008FS  | 236345.21       | 669245.39 | 1.01E+00 | 0.080 | 5.34E-02 | +          | 1.41E-02  | 0.025 | 5.02E-02 |            |           |       |          |            | 0.354 *          |
| 9522-0003-0017-I | 236316.25       | 669117.09 | 8.88E-02 | 0.024 | 2.75E-02 | +          | 5.45E-03  | 0.017 | 3.26E-02 |            |           |       |          |            | 0.033 *          |
| 9522-0003-0018-I | 236328.54       | 669100.57 | 3.90E-02 | 0.020 | 2.74E-02 | +          | 7.34E-04  | 0.013 | 2.46E-02 |            |           |       |          |            | 0.014 *          |
| 9522-0003-0019-I | 236338.43       | 669144.65 | 2.40E-02 | 0.035 | 3.04E-02 |            | 7.19E-03  | 0.016 | 3.20E-02 |            |           |       |          |            | 0.011 *          |
| 9522-0003-0020-I | 236351.05       | 669122.95 | 4.95E-02 | 0.030 | 3.09E-02 | +          | 9.93E-03  | 0.018 | 3.53E-02 |            |           |       |          |            | 0.021 *          |
| 9522-0003-0021-I | 236357.81       | 669115.82 | 7.95E-02 | 0.033 | 3.02E-02 | +          | 1.10E-02  | 0.021 | 3.92E-02 |            |           |       |          |            | 0.032 *          |
| 9522-0003-0022-I | 236348.54       | 669161.72 | 9.49E-02 | 0.034 | 2.27E-02 | +          | -6.10E-03 | 0.021 | 3.43E-02 |            |           |       |          |            | 0.030 *          |
| 9522-0003-0023-I | 236349.31       | 669158.89 | 1.83E-01 | 0.049 | 3.43E-02 | +          | 2.27E-02  | 0.021 | 4.19E-02 | +          |           |       |          |            | 0.072 *          |
| 9522-0003-0024-I | 236350.76       | 669160.46 | 2.28E-01 | 0.038 | 3.27E-02 | +          | 2.29E-02  | 0.023 | 4.45E-02 | +          |           |       |          |            | 0.087 *          |
| 9522-0003-0025-I | 236345.27       | 669173.54 | 8.49E-02 | 0.037 | 3.51E-02 | +          | 5.41E-03  | 0.019 | 3.50E-02 |            |           |       |          |            | 0.031 *          |
| 9522-0003-0026-I | 236347.81       | 669179.33 | 3.44E-01 | 0.048 | 3.31E-02 | +          | 0.00E+00  | 0.037 | 3.01E-02 |            |           |       |          |            | 0.119 *          |
| 9522-0003-0027-I | 236375.99       | 669156.04 | 2.25E-02 | 0.024 | 3.80E-02 |            | 1.15E-04  | 0.020 | 3.39E-02 |            |           |       |          |            | 0.008 *          |
| 9522-0003-0028-I | 236380.69       | 669158.40 | 1.53E-02 | 0.024 | 4.19E-02 |            | -1.78E-03 | 0.026 | 4.19E-02 |            |           |       |          |            | 0.005 *          |
| 9522-0003-0029-I | 236391.31       | 669162.86 | 0.00E+00 | 0.036 | 3.31E-02 |            | 1.00E-03  | 0.018 | 3.34E-02 |            |           |       |          |            | 0.000 *          |
| 9522-0003-0030-I | 236395.89       | 669163.77 | 2.95E-02 | 0.034 | 6.03E-02 |            | 1.32E-02  | 0.031 | 6.02E-02 |            |           |       |          |            | 0.015 *          |
| 9522-0003-0031-I | 236367.76       | 669210.17 | 4.13E-01 | 0.041 | 3.34E-02 | +          | 0.00E+00  | 0.022 | 3.58E-02 |            |           |       |          |            | 0.142 *          |
| 9522-0003-0032-I | 236399.82       | 669193.00 | 8.20E-02 | 0.034 | 3.96E-02 | +          | -4.98E-03 | 0.022 | 3.71E-02 |            |           |       |          |            | 0.026 *          |
| 9522-0003-0033-I | 236329.17       | 669236.18 | 1.81E-01 | 0.049 | 4.24E-02 | +          | 8.23E-03  | 0.029 | 5.05E-02 |            |           |       |          |            | 0.066 *          |
| 9522-0003-0034-I | 236349.62       | 669249.83 | 4.78E-01 | 0.060 | 3.04E-02 | +          | 0.00E+00  | 0.043 | 3.72E-02 |            |           |       |          |            | 0.165 *          |
| 9522-0003-0035-I | 236252.17       | 669215.01 | 8.35E-02 | 0.032 | 2.54E-02 | +          | 0.00E+00  | 0.017 | 3.14E-02 |            |           |       |          |            | 0.029 *          |

\* The Operational DCGL for Cs-137 has been adjusted to 2.90 pCi/g as a surrogate to account for the potential presence of HTD radionuclide Sr-90.

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SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

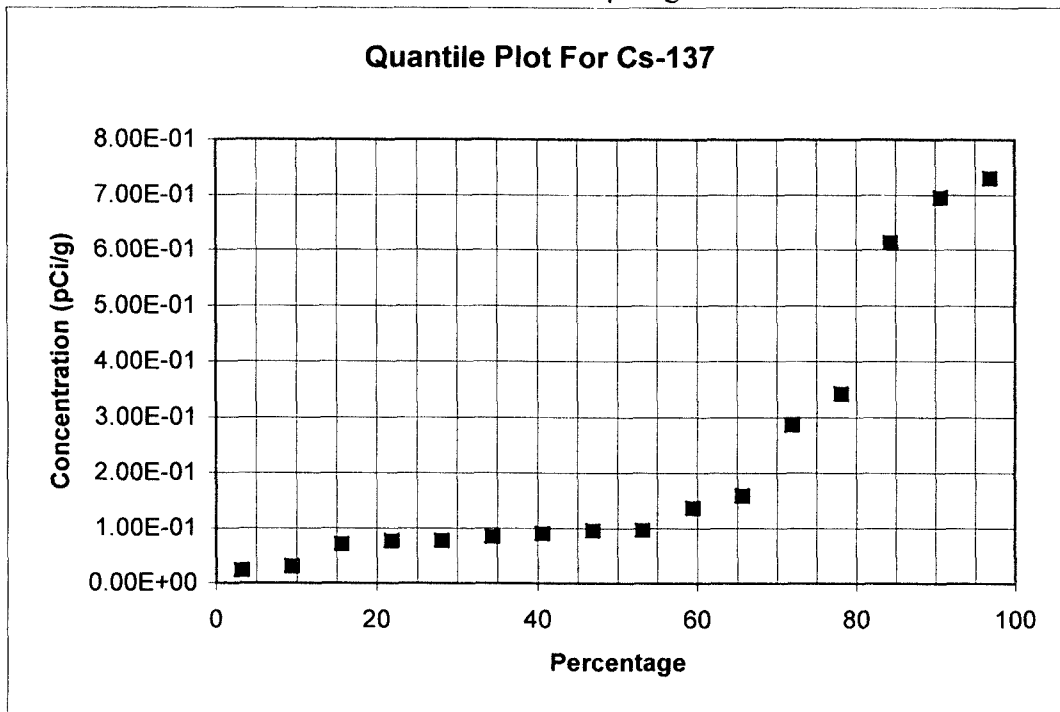
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**ATTACHMENT 4B  
(GRAPHICAL REPRESENTATION OF  
DATA)**


Revision 0

# QUANTILE PLOT FOR CESIUM-137


Survey Unit: 9522-0003  
 Survey Unit Name: Southeast Site Grounds (non-protected area)  
 Mean: 2.26E-01 pCi/g



| Cs-137   | Rank | Percentage |
|----------|------|------------|
| 2.42E-02 | 1    | 3.1%       |
| 3.11E-02 | 2    | 9.4%       |
| 7.13E-02 | 3    | 15.6%      |
| 7.69E-02 | 4    | 21.9%      |
| 7.76E-02 | 5    | 28.1%      |
| 8.51E-02 | 6    | 34.4%      |
| 9.08E-02 | 7    | 40.6%      |
| 9.63E-02 | 8    | 46.9%      |
| 9.66E-02 | 9    | 53.1%      |
| 1.37E-01 | 10   | 59.4%      |
| 1.59E-01 | 11   | 65.6%      |
| 2.87E-01 | 12   | 71.9%      |
| 3.42E-01 | 13   | 78.1%      |
| 6.13E-01 | 14   | 84.4%      |
| 6.95E-01 | 15   | 90.6%      |
| 7.30E-01 | 16   | 96.9%      |

 D. Warkow 1/9/07

Submitted by/Date

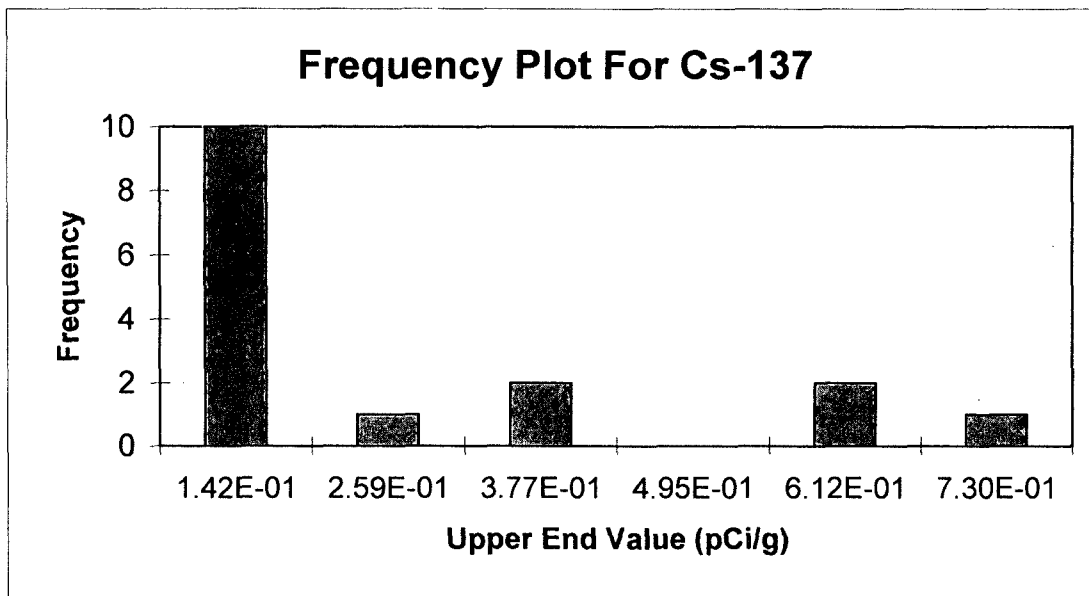
 1/9/07  
 Reviewed by/Date

# FREQUENCY PLOT FOR CESIUM-137

Survey Unit: 9522-0003

Survey Unit Name: Southeast Site Grounds (non-protected area)

Mean: 2.26E-01 pCi/g

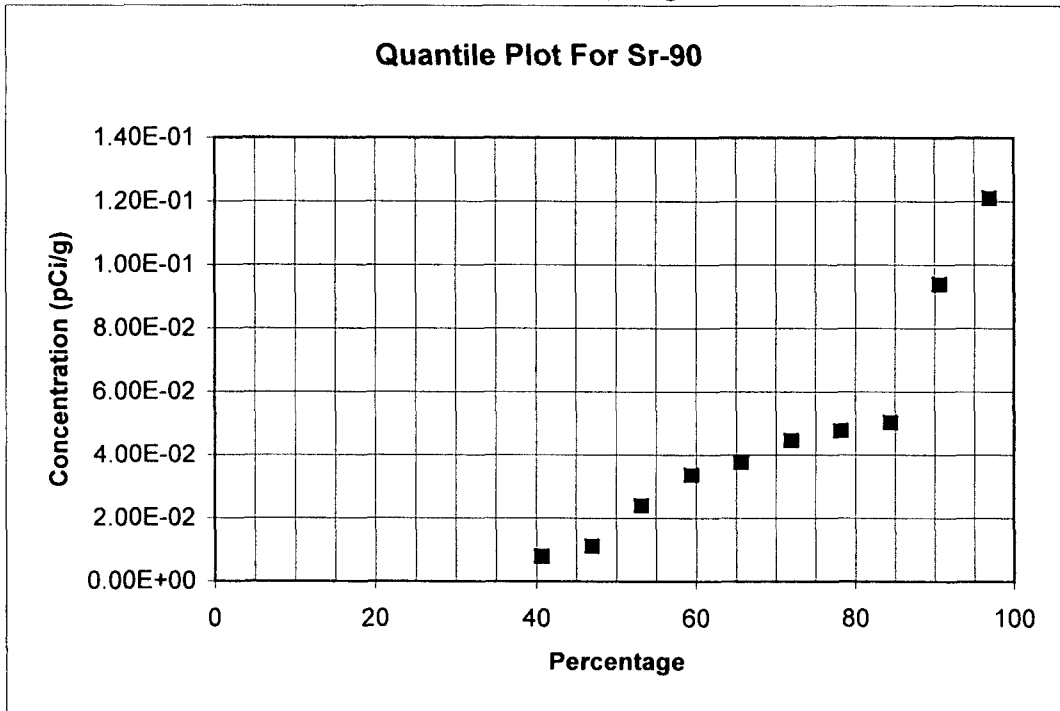


| Upper End Value | Observation Frequency | Observation Frequency |
|-----------------|-----------------------|-----------------------|
| 1.42E-01        | 10                    | 63%                   |
| 2.59E-01        | 1                     | 6%                    |
| 3.77E-01        | 2                     | 13%                   |
| 4.95E-01        | 0                     | 0%                    |
| 6.12E-01        | 2                     | 13%                   |
| 7.30E-01        | 1                     | 6%                    |
| Total:          | 16                    | 100%                  |

100 D. Warkowiak 1/9/07  
Submitted by/Date  
[Signature] 1/9/07  
Reviewed by/Date

# QUANTILE PLOT FOR STRONTIUM-90

Survey Unit: 9522-0003  
 Survey Unit Name: Southeast Site Grounds (non-protected area)  
 Mean: 2.54E-02 pCi/g



| Sr-90     | Rank | Percentage |
|-----------|------|------------|
| -2.27E-02 | 1    | 3.1%       |
| -1.45E-02 | 2    | 9.4%       |
| -8.30E-03 | 3    | 15.6%      |
| -7.57E-03 | 4    | 21.9%      |
| -6.51E-03 | 5    | 28.1%      |
| -5.79E-03 | 6    | 34.4%      |
| 7.89E-03  | 7    | 40.6%      |
| 1.11E-02  | 8    | 46.9%      |
| 2.40E-02  | 9    | 53.1%      |
| 3.37E-02  | 10   | 59.4%      |
| 3.77E-02  | 11   | 65.6%      |
| 4.47E-02  | 12   | 71.9%      |
| 4.78E-02  | 13   | 78.1%      |
| 5.04E-02  | 14   | 84.4%      |
| 9.39E-02  | 15   | 90.6%      |
| 1.21E-01  | 16   | 96.9%      |

*D. Warkowski* 1/9/07  
 Submitted by/Date

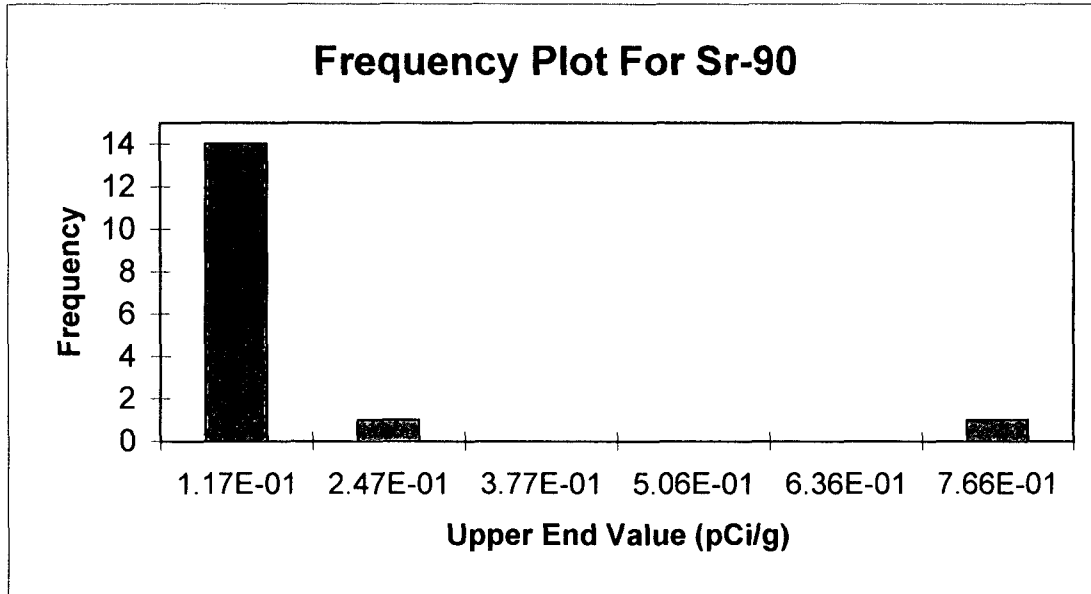
*[Signature]* 1/9/07  
 Reviewed by/Date

## FREQUENCY PLOT FOR STRONTIUM-90

Survey Unit: 9522-0003

Survey Unit Name: Southeast Site Grounds (non-protected area)

Mean: 7.65E-02 pCi/g



| Upper End Value | Observation Frequency | Observation Frequency |
|-----------------|-----------------------|-----------------------|
| 1.17E-01        | 14                    | 88%                   |
| 2.47E-01        | 1                     | 6%                    |
| 3.77E-01        | 0                     | 0%                    |
| 5.06E-01        | 0                     | 0%                    |
| 6.36E-01        | 0                     | 0%                    |
| 7.66E-01        | 1                     | 6%                    |
| Total:          | 16                    | 100%                  |

Submitted by/Date

Reviewed by/Date

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SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

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**ATTACHMENT 4C (SIGN TEST)**

**Sign Test Calculation Sheet for Multiple Radionuclides**

| Survey Area Number: 9522                                         |                                                    | Survey Unit Number: 0003                           |                                                    | WPIR #: 2006-0047                 |                  |      |
|------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-----------------------------------|------------------|------|
| Survey Area Name: Southeast Site Grounds<br>(non-protected area) |                                                    | Classification: 1                                  | TYPE I (α error): 0.05                             | N: 16                             |                  |      |
| Radionuclides:                                                   | 1 <sup>st</sup> Radionuclide<br>Cs-137             | 2 <sup>nd</sup> Radionuclide<br>Co-60              | 3 <sup>rd</sup> Radionuclide<br>Sr-90              | 4 <sup>th</sup> Radionuclide      |                  |      |
| DCGL:                                                            | 5.38E+00                                           | 2.59E+00                                           | 1.05E+00                                           |                                   |                  |      |
| Results 1 <sup>st</sup><br>Radionuclide<br>(pCi/g)               | Results 2 <sup>nd</sup><br>Radionuclide<br>(pCi/g) | Results 3 <sup>rd</sup><br>Radionuclide<br>(pCi/g) | Results 4 <sup>th</sup><br>Radionuclide<br>(pCi/g) | Weighted Sum<br>(W <sub>s</sub> ) | 1-W <sub>s</sub> | Sign |
| 3.11E-02                                                         | 6.20E-03                                           | 1.11E-02                                           |                                                    | 0.02                              | 0.98             | +1   |
| 1.59E-01                                                         | -2.91E-03                                          | 1.21E-01                                           |                                                    | 0.14                              | 0.86             | +1   |
| 3.42E-01                                                         | 1.14E-02                                           | 4.78E-02                                           |                                                    | 0.11                              | 0.89             | +1   |
| 7.13E-02                                                         | -5.45E-03                                          | 5.04E-02                                           |                                                    | 0.06                              | 0.94             | +1   |
| 9.08E-02                                                         | -6.60E-03                                          | 3.77E-02                                           |                                                    | 0.05                              | 0.95             | +1   |
| 1.37E-01                                                         | 8.71E-03                                           | 3.37E-02                                           |                                                    | 0.06                              | 0.94             | +1   |
| 6.13E-01                                                         | 3.03E-02                                           | -2.27E-02                                          |                                                    | 0.10                              | 0.90             | +1   |
| 7.30E-01                                                         | 1.18E-02                                           | 4.47E-02                                           |                                                    | 0.18                              | 0.82             | +1   |
| 6.95E-01                                                         | 9.68E-03                                           | 2.40E-02                                           |                                                    | 0.16                              | 0.84             | +1   |
| 7.69E-02                                                         | 1.15E-02                                           | -5.79E-03                                          |                                                    | 0.01                              | 0.99             | +1   |
| 2.42E-02                                                         | 9.98E-03                                           | -7.57E-03                                          |                                                    | 0.00                              | 1.00             | +1   |
| 7.76E-02                                                         | -1.70E-02                                          | -8.30E-03                                          |                                                    | 0.00                              | 1.00             | +1   |
| 2.87E-01                                                         | 5.72E-03                                           | 7.89E-03                                           |                                                    | 0.06                              | 0.94             | +1   |
| 9.63E-02                                                         | 2.71E-02                                           | -1.45E-02                                          |                                                    | 0.01                              | 0.99             | +1   |
| 9.66E-02                                                         | 3.67E-02                                           | -6.51E-03                                          |                                                    | 0.03                              | 0.97             | +1   |
| 8.51E-02                                                         | 7.91E-03                                           | 9.39E-02                                           |                                                    | 0.11                              | 0.89             | +1   |
|                                                                  |                                                    |                                                    |                                                    |                                   |                  |      |
| Number of positive differences (S+)                              |                                                    |                                                    |                                                    |                                   | 16               |      |

Critical Value 11

Survey Unit Meets the Acceptance Criteria

Performed by: David Wojtkowiak

Date: 1/9/2007

Independent Review by:

Date: 1/9/07



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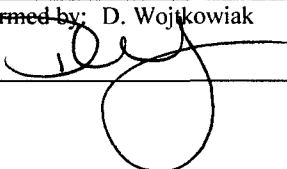
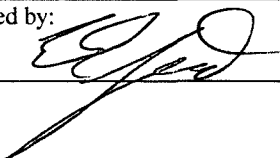
SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

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**ATTACHMENT 4D (QC SPLIT RESULTS)**

## Split Sample Assessment Form

| Survey Area #: 9522                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        | Survey Unit #: 0003 |            | Survey Unit Name: Southeast Site Grounds<br>(non-protected area)                                  |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------|------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|------------------|-------------------|------------------------|-------|-----------|--------|------------|---------|-------------|----------|-------------|------|-------------|
| Sample Plan or WPIR#: 2006-0047                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            | SML#: 9522-0003-008                                                                               |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
| Sample Description: Comparison of split samples collected from sample measurement location #8 and analyzed using gamma spectroscopy by off-site Vendor Laboratory. The standard sample was 9522-0003-008F, the comparison sample was 9522-0003-0008FS.                                                                                                                                                                                                                                                                         |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
| STANDARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        |                     |            |                                                                                                   | COMPARISON                                                                                                                                                                                                                                                                                                                             |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
| Radionuclide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Activity Value         | Standard Error      | Resolution | Agreement Range                                                                                   | Activity Value                                                                                                                                                                                                                                                                                                                         | Standard Error | Comparison Ratio | Acceptable (Y/N) |                   |                        |       |           |        |            |         |             |          |             |      |             |
| Cs-137                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7.30E-01               | 0.025               | 30         | 0.75 - 1.33                                                                                       | 1.01E+00                                                                                                                                                                                                                                                                                                                               | 0.040          | 1.38             | N                |                   |                        |       |           |        |            |         |             |          |             |      |             |
| K-40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.15E+01               | 0.3285              | 35         | 0.75 - 1.33                                                                                       | 1.11E+01                                                                                                                                                                                                                                                                                                                               | 0.51           | 0.97             | Y                |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
| Comments/Corrective Actions: In consideration of the Cs-137 results, Cs-137 has a likelihood to be tightly bound to organic mater in the sample matrix, one would not necessarily expect it to be homogeneously mixed as processing of the sample-split aliquot is not very effective in dispersing the organic material uniformly through the sample aliquot due to the physical form of the organic material itself. Since K-40 was found to be present at an acceptable level of agreement, no further action is warranted. |                        |                     |            |                                                                                                   | Table is provided to show acceptance criteria used to assess split samples.                                                                                                                                                                                                                                                            |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                     |            |                                                                                                   | <table> <tr> <td><u>Resolution</u></td> <td><u>Agreement Range</u></td> </tr> <tr> <td>4 - 7</td> <td>0.5 - 2.0</td> </tr> <tr> <td>8 - 15</td> <td>0.6 - 1.66</td> </tr> <tr> <td>16 - 50</td> <td>0.75 - 1.33</td> </tr> <tr> <td>51 - 200</td> <td>0.80 - 1.25</td> </tr> <tr> <td>&gt;200</td> <td>0.85 - 1.18</td> </tr> </table> |                |                  |                  | <u>Resolution</u> | <u>Agreement Range</u> | 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 |
| <u>Resolution</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <u>Agreement Range</u> |                     |            |                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |                |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |
| 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<br>                                                                                                                                                                                                                                                                                                                                                                                                             |                        | Date: 1/9/2007      |            | Reveiwed by:  |                                                                                                                                                                                                                                                                                                                                        | Date: 1/9/07   |                  |                  |                   |                        |       |           |        |            |         |             |          |             |      |             |

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SOUTHEAST SITE GROUNDS (NON-PROTECTED AREA)  
SURVEY UNIT 9522-0003

RELEASE RECORD

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**ATTACHMENT 4E  
(COMPASS DQA WITH POWER CURVE)**



# DQA Surface Soil Report

## Assessment Summary

|                         |                                                           |              |               |
|-------------------------|-----------------------------------------------------------|--------------|---------------|
| Site:                   | Southeast Grounds (non-protected area) 2                  |              |               |
| Planner(s):             | Wojo                                                      |              |               |
| Survey Unit Name:       | 9522-0003                                                 |              |               |
| 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:  | <b><i>Reject Null Hypothesis (Survey Unit PASSES)</i></b> |              |               |

## Retrospective Power Curve

