



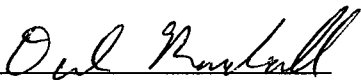
Final Status Survey Final Report Phase IV


**Appendix A9
Survey Unit Release Record
9106-0009, Discharge Canal**

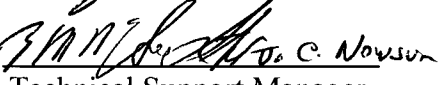
November 2006



CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
DISCHARGE CANAL
SURVEY UNIT 9106-0009

Prepared By:  Date: 11-14-06
FSS Engineer

Reviewed By:  Date: 11/14/06
FSS Engineer

Approved By:  C. Nowson Date: 11/15/06
Technical Support Manager

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9106-0009 (Discharge Canal) is designated as Final Status Survey (FSS) Class 2 and consists of approximately 9,933 m² (2.45 acres) of water covered sediment in an area located approximately 1.02 miles from the reference coordinate system benchmark used at the Haddam Neck Plant (HNP) (see Attachment 1, Figure 1). The Discharge Canal is a man-made mile long waterway that runs parallel to, and ultimately communicates with, the Connecticut River. The Discharge Canal is subdivided into fifteen (15) survey units including two (2) permanent wetland areas for FSS purposes. The survey unit is bounded as follows: Discharge Canal Survey Unit 9106-0008 is to the north (called north as orientated with the north to south flow of the Connecticut River), Survey Area 9523 is to the east, Discharge Canal Survey Unit 9106-0010 is to the south and South Peninsula Survey Area 9531 (formerly a part of 9530) is to the west. The survey unit comprises the canal sediments to the deeper of three (3) feet or the original construction depth and it extends up the canal banks to the mean high water level.

The reference coordinates associated with this survey unit are E018 through E027 by S148 through S161 (refer to License Termination Plan 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 historical information, scoping analyses and characterization results provided sufficient data to designate Survey Unit 9106-0009 as Class 2 in May 2006.

The "Classification Basis Summary" conducted for this survey unit 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 (HSA) Supplement,"
- c) Historic and current survey records review,
- d) Visual inspections and a "walkdown."
- e) Formal or informal interviews with cognizant personnel.

A review of the 10CFR50.75(g)(1) database report identified a number of events that may have impacted this survey unit. In 1986, samples were taken from the legacy dredge spoils removed in 1979 dredged spoils area and from recently dredged canal sediment. The sample analyses indicated that the

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concentrations of Cs-137, Co-60 and other radionuclides were a small fraction of the DCGLs for those nuclides that could be identified by gamma spectroscopy. (refer to NE-86-RA-1142 dated 11-13-86). None the available historical information reviewed would support a conclusion that any residual activity in this survey unit is likely to be present at concentrations greater than the respective DCGLs

Additional information was provided by several historical documents, including the "*Results of Scoping Survey*", (completed 9/1/98), the "*Historical Site Assessment*", and the HSA Supplement (dated 6-30-00). These documents presented the results of several sediment samples taken in 1997. These sample results indicated concentrations of 0.5 pCi/g for Co-60, 0.024pCi/g for Cs-134 and 0.722 pCi/g for Cs-137.

An initial characterization survey was implemented during April and May of 2004. Six (6) samples from three (3) locations were obtained by biased sampling throughout the area. The samples were analyzed off-site by gamma spectroscopy and with radiochemical analyses for Sr-90 and Tritium. Hard-to-Detect analyses were also conducted on one (1) of the six (6) samples. The only plant-related dosimetrically significant radionuclides identified in the samples were Cs-137, Cobalt-60 and Ni-63. No samples indicated radioactive material in quantities above the ten (10) mrem/yr design DCGL. Cobalt-60 accounted for the majority of the dose in these samples with a maximum concentration of 0.57 pCi/g.

A final characterization was performed by Site Closure personnel in April of 2006. Six (6) sediment samples from six (6) locations were taken. All of the samples were analyzed by gamma spectroscopy. Based on the initial and final characterization results, the radionuclides of concern identified in the sample data for FSS planning purposes were Cesium-137, Cobalt-60 and Ni-63. Since HTD analyses were not performed for all radionuclides of interest during characterization, additional HTD analyses were performed as a part of the FSS. The statistics for each of the radionuclides of concern are listed in Table 1.

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Table 1 – Basic Statistical Quantities for Cs-137, Co-60 and Ni-63 from the Characterization Survey

Parameter	Cs-137 (pCi/g)	Co-60 (pCi/g)	Ni-63 (pCi/g)
Minimum Value:	1.99E-03	-1.83E-02	-1.68E+00
Maximum Value:	4.24E-01	3.82E-01	3.47E+01
Mean:	1.34E-01	1.17E-01	1.65E+01
Median:	9.43E-02	8.56E-02	1.65E+01
Standard Deviation:	1.58E-01	1.41E-01	2.57E+01

NOTE: The Operational DCGLs are 6.01 pCi/g for Cs-137, 2.90 pCi/g for Co-60 and 549 pCi/g for Ni-63; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE

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

Based upon the historical information and the results of radiological surveys performed during characterization, it was concluded that there was a low probability for residual radioactivity to be present in this survey unit in concentrations greater than the Operational DCGLs justifying a final survey unit classification of Class 2 (refer to Section 3).

3. DATA QUALITY OBJECTIVES (DQO)

FSS design and planning is based on 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 incorporates 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 satisfy the release criteria objective of the FSS.

The primary objective of the Final Status Survey Plan (FSSP) was to demonstrate that the level of residual radioactivity in Survey Unit 9106-0009 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).

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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 Derived Concentration Guideline Levels (DCGLs). The DCGLs represent the concentration of radioactivity above background, equivalent to a dose-based release criterion and is 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), for existing groundwater radioactivity and for future groundwater radioactivity that will be contributed by building foundations and footings.

As described in detail in the LTP, the dose model applied to the discharge canal presumes that the canal sediments are dredged to a depth of three (3) feet below the top of the sediment layer and spread for the planting of crops per the Resident Farmer Scenario. Consequently, the soil DCGLs are directly applied to the canal sediment media.

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

Equation 1:

$$H_{\text{Total}} = H_{\text{Soil (sediment)}} + H_{\text{Existing GW}} + H_{\text{Future GW}}$$

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

This survey unit is not affected by either existing groundwater or by future groundwater (reference CY memo ISC 06-024). Therefore, dose contribution from both existing and future groundwater is zero (0) mrem/yr TEDE, based on field data.

Equation 2:

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

The allowable dose for sediment in this survey unit is nineteen (19) mrem/yr TEDE as shown by Equation 2 above. The concentration of residual radioactivity resulting in nineteen (19) mrem/yr TEDE is designated as the

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

Note: The survey design used a much smaller value for investigation than the Operational DCGL provided by Table 2 to conservatively account for the contribution to the total dose from existing and future groundwater which had not been established at the time of planning the FSS.

Table 2 – Radionuclide Specific Base Case Soil DCGL, Operational DCGLs and Required Minimum Detectable Concentrations			
Radionuclide ⁽¹⁾	Base Case Soil DCGL (pCi/g) ⁽²⁾	Operational DCGL (pCi/g) ⁽³⁾	Required MDC (pCi/g) ⁽⁴⁾
H-3	4.12E+02	3.13E+02	1.65E+01
C-14	5.66E+00	4.30E+00	2.26E-01
Mn-54	1.74E+01	1.32E+01	6.96E-01
Fe-55	2.74E+04	2.08E+04	1.10E+03
Co-60	3.81E+00	2.90E+00	1.52E-01
Ni-63	7.23E+02	5.49E+02	2.89E+01
Sr-90	1.55E+00	1.18E+00	6.20E-02
Nb-94	7.12E+00	5.41E+00	2.85E-01
Tc-99	1.26E+01	9.58E+00	5.04E-01
Ag-108m	7.14E+00	5.43E+00	2.86E-01
Cs-134	4.67E+00	3.55E+00	1.87E-01
Cs-137	7.91E+00	6.01E+00	3.16E-01
Eu-152	1.01E+01	7.68E+00	4.04E-01
Eu-154	9.29E+00	7.06E+00	3.72E-01
Eu-155	3.92E+02	2.98E+02	1.57E+01
Pu-238	2.96E+01	2.25E+01	1.18E+00
Pu-239/240	2.67E+01	2.03E+01	1.07E+00
Pu-241	8.70E+02	6.61E+02	3.48E+01
Am-241 ⁽⁵⁾	2.58E+01	1.96E+01	1.03E+00
Cm-243/244	2.90E+01	2.20E+01	1.16E+00

(1) **Bold** indicates those radionuclides considered to be Hard to Detect (HTD)

(2) The Base Case Soil DCGLs for soil 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 nineteen (19) mrem/yr TEDE

(4) The required MDC is equivalent to 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. Characterization was completed in April of 2006 as discussed in Section 2. Cesium-137, Cobalt-60 and Nickel-63 were found to be the predominate radionuclides of concern. The basic statistical quantities (i.e., mean, standard deviation, median) for Cs-137, Co-60 and Ni-63 are provided in Table 1.

Laboratory DQOs and analysis results were to be reported as actual calculated results. Results reported as less than Minimum Detectable Concentration (<MDC) would not be accepted for FSS. Sample report summaries were to include unique sample identification, analytical method, radionuclide, result, and uncertainty of two 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"*.

This survey was initially designed to ten (10) mrem/yr TEDE. At the time when the survey was designed, the dose contribution for existing and future groundwater had not yet been determined. Subsequently, a conservative value was chosen for the Operational DCGL. This approach is no longer required as the total dose from existing and future groundwater has been established. The dose for soil used for this survey unit to demonstrate compliance with the LTP criteria is nineteen (19) mrem/yr TEDE, as discussed in Section 2 of this Release Record.

The DQO process determined that Cs-137, Co-60 and Ni-63 were the radionuclides of concern (refer to Section 3). The sum of fractions or unity rule was used with the individual Operational DCGLs because multiple radionuclides (Cs-137, Co-60 and Ni-63) were considered in the survey design.

Surrogate DCGLs were not required for this survey unit based on process knowledge from FSS of nearby adjacent areas and via screening process described in LTP Section 5.4.7.2, "Gross Activity DCGLs". Ni-63 concentrations in sediment and soil were ascertained by direct analysis.

Radionuclide screening or de-selection is a process where an individual radionuclide or aggregate may be considered insignificant and eliminated from the FSS. The criteria for de-selection are concentrations that are less than 5% for individual radionuclides and that are less than 10% for the aggregate of all radionuclides that are de-selected. This process was applied to analysis data for this survey unit.

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The Elevated Measurement Comparison (EMC) did not apply to this survey unit since the survey unit is a Class 2 and discrete, elevated areas of contamination were not expected.

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

The number of sediment samples for FSS was determined in accordance with Procedure RPM 5.1-12, "*Determination of the Number of Samples for Final Status Survey.*" The Lower Bound of the Gray Region (LBGR) was set in accordance with Procedure RPM 5.1-11 to 0.724 to maintain the relative shift (Δ/σ) in the range of 1 and 3. The resulting relative shift was 2.0. 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 (10 CFR 20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design. This indicates that the survey unit has a high probability of rejecting the null hypothesis, assuming that the characterization data are representative of the FSS results. Survey design specified fifteen (15) sediment core samples for non-parametric statistical testing.

The grid pattern and locations of the sediment 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 2 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.

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Table 3—Sample Measurement Locations with Associated GPS Coordinates		
Designation	Northing	Easting
9106-0009-001F	234282.36	673022.88
9106-0009-002F	234282.36	673113.80
9106-0009-003F	234203.62	673068.34
9106-0009-004F	234203.62	673159.25
9106-0009-005F	234124.88	673113.80
9106-0009-007F	234046.15	673159.25
9106-0009-008F	233967.41	673113.80
9106-0009-009F	233967.41	673204.71
9106-0009-010F	233888.68	673159.25
9106-0009-011F	233888.68	673250.17
9106-0009-013F	233809.94	673204.71
9106-0009-014F	233731.21	673159.25
9106-0009-015F	233731.21	673250.17
9106-0009-016F	234078.97	673143.18
9106-0009-017F	234023.32	673157.00

The sample location designations of Table 3 are not sequentially inclusive because of the necessity to relocate some samples due to the accessibility of the original sample locations. Samples locations 9106-0009-006F and 9106-0009-012F were found to be on dry land, consequently, they were randomly relocated using the VSP software to two (2) new locations designated as 9106-0009-016F and 9106-0009-017F. Since sample 9106-0009-006F was randomly selected as a Quality Control (QC) split sample, 9106-0009-016F was designated as the replacement QC sample.

Four (4) sediment samples were analyzed for the full suite of radionuclides specified in Table 1, exceeding the requirement to analyze 5% of the sample population for HTD analysis specified in procedure RPM 5.1-11. Two (2) of the four (4) samples were randomly selected using the Microsoft Excel "RAND" function. The two (2) samples exhibiting the highest observed radionuclide concentrations by gamma analyses were also selected.

The implementation of quality control measures as referenced by Procedure RPM 5.1-24, *"Split Sample Assessment for Final Status Survey,"* required the collection of two (2) soil samples for "split sample" analysis by the off-site laboratory. These locations were selected randomly using the Microsoft Excel "RAND" function. The number of quality control samples exceeded the 5% requirement as specified by the LTP.

Section 5.7.3.2.6 of the LTP specifies that scanning is not required for the FSS of the Discharge Canal. Table 4 provides a synopsis of the survey design.

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Table 4 – Synopsis of the Survey Design ⁽¹⁾		
Feature	Design Criteria	Basis
Survey Unit Land Area	9,933 m ²	Based on AutoCAD-LT and Visual Sample Plan calculations
Number of Measurements	15	Type 1 and Type 2 errors were 0.05, sigma was 0.138 the LBGR was set to 0.724 to maintain Relative Shift in the range of 1 and 3, Relative Shift was 2.0
Grid Spacing	27.4 m	Based on triangular grid
Design DCGL	3.16 pCi/g Cs-137 1.52 pCi/g Co-60 289 pCi/g Ni-63	To achieve ten (10) mrem/yr TEDE
Operational DCGL	6.01 pCi/g Cs-137 2.90 pCi/g Co-60 549 pCi/g Ni-63	To achieve nineteen (19) mrem/yr TEDE ⁽²⁾ to demonstrate compliance with Equation 2 of this Release Record
Scan Coverage	N/A	The LTP exempts this area
Sediment Investigation Level	6.01 pCi/g Cs-137 2.90 pCi/g Co-60 549 pCi/g Ni-63	The Operational DCGL meets the LTP criteria for a Class 2 survey unit

(1) The survey design used a much smaller value for investigation than the Operational DCGL provided by Table 2 as the total dose from existing and future groundwater had not been established at the time of planning the FSS

5. SURVEY IMPLEMENTATION

Final status survey field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0021. The WP&IR package included a detailed FSSP, 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.

Measurement locations were identified in North American Datum (NAD) 1927 coordinates that were supplied to the sampling vendor, Ocean Survey, Inc. (OSI) of Old Saybrook, Connecticut. Discharge Canal sampling was accomplished using direct push technology to collect composite samples of bottom and mean high water mark sediments. Sediment cores from the Discharge Canal were obtained by OSI using a vibrating corer that is platform mounted on a sampling vessel. The core barrel was a three (3) inch diameter thin-walled aluminum tube which also served as a core liner (ten (10) feet or less). A core catcher was available to prevent the sample from sliding out of the bottom of the tube. Vessel positioning and the determination of sample locations were accomplished using a GPS interfaced with a navigation and data logging system.

After extraction, water was drained from above the sample by drilling holes above the sediment. The liner was cut, capped, sealed, labeled and turned over

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to site personnel who processed and controlled the samples under Chain of Custody (COC) protocols in accordance with procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples.*" Rinsing of the barrel and associated equipment was performed between sampling events. New aluminum tubes were used for each sample to prevent cross-contamination of subsequent samples.

The fifteen (15) sediment 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*". Samples were controlled, transported, stored, and transferred to the off-site laboratory using COC protocols.

Four (4) samples (9106-0009-002F, 9106-0009-011F, 9106-0009-014F and 9106-0009-017F) were selected for HTD radionuclide analysis by the off-site laboratory. Two (2) of these samples (011F and 014F) were selected at random. The other two (2) were selected based on being the most dosimetrically significant samples based on spectroscopic gamma analyses.

The implementation of survey specific quality control measures included the collection of two (2) split samples at locations 9106-0009-013F and 9106-0009-016F for "split sample" analysis by the off-site laboratory.

6. SURVEY RESULTS

The off-site laboratory employed for the radiological analyses of samples was General Engineering Laboratories (GEL) – Charleston, South Carolina. The laboratory analyzed the fifteen (15) samples taken for non-parametric statistical testing and the associated duplicates using gamma spectroscopy. Ni-63 was analyzed by liquid scintillation analysis. All analyses were performed to the required MDC.

Cesium-137 was identified in eleven (11), Co-60 was identified in eleven (11), and Ni-63 in none of the fifteen (15) samples. The results reported for the remaining sample analyses indicated that activity was present at levels approaching or below the established detection limits in the remaining samples collected and analyzed for non-parametric testing.

Several other radionuclides which were positively identified (i.e., a result greater than two (2) standard deviations uncertainty) could be de-selected or excluded using the 5% and 10% rule described in Section 5.4.7.2 of the LTP.

The off-site laboratory also processed four (4) samples for full HTD analysis as required by the sample plan. The requested analyses included alpha spectroscopy and liquid scintillation depending upon the radionuclide and the measurement method. All analyses were performed to the required MDC. A number of the HTD radionuclides met the accepted criteria for detection (i.e., a result greater than two (2) standard deviations uncertainty) in more than one (1)

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sample. However, only H-3 and Cm-243/244 could not be de-selected based on the 5% and 10% rules.

None of the sample results exceeded the Operational DCGL or required further investigation. A summary of the sample results is provided in Table 5.

Table 5- Summary of Sediment Sample Results					
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Ni-63 pCi/g	Fraction of the Operational DCGL ⁽¹⁾	
				Nuclides of concern	Unity (Sign Test) ⁽²⁾
9106-0009-001F	1.65E-01	1.18E-01	-1.97E+00	6.46E-02	1.24E-01
9106-0009-002F	5.27E-01	9.04E-01	-1.20E+01	3.78E-01	3.91E-01
9106-0009-003F	0.00E+00	1.52E-02	-7.67E+00	-8.73E-03	5.05E-02
9106-0009-004F	-5.66E-03	1.99E-02	-2.23E+00	1.86E-03	6.11E-02
9106-0009-005F	1.91E-01	1.06E-01	-1.30E+01	4.47E-02	1.04E-01
9106-0009-007F	1.03E-01	6.71E-02	-1.36E+01	1.55E-02	7.48E-02
9106-0009-008F	3.72E-02	4.83E-02	-1.29E+01	-6.52E-04	5.86E-02
9106-0009-009F	3.97E-01	4.58E-01	-7.24E+00	2.11E-01	2.70E-01
9106-0009-010F	1.56E-01	1.53E-01	-4.44E+00	7.06E-02	1.30E-01
9106-0009-011F	2.14E-03	-1.89E-02	-1.23E+01	-2.86E-02	4.64E-02
9106-0009-013F	2.85E-02	0.00E+00	-3.87E+00	-2.31E-03	5.70E-02
9106-0009-014F	2.17E-01	6.26E-02	-1.04E+01	3.87E-02	1.89E-01
9106-0009-015F	1.86E-01	3.34E-01	-8.35E+00	1.31E-01	1.90E-01
9106-0009-016F	1.70E-01	2.39E-01	-6.30E+00	9.92E-02	1.59E-01
9106-0009-017F	3.88E-01	5.37E-01	-5.48E+00	2.40E-01	2.38E-01

(1) The Operational DCGLs from Table 2 are 6.01 pCi/g for Cs-137, 2.90 pCi/g for Co-60 and 549 for Ni-63; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE.

(2) This column is the sum of the DCGL unity fraction from identified radionuclides of concern and HTD isotopes (H-3 and Cm-243/244) exceeding the 5%/10% rule for one or more FSS samples. For those samples not measured for HTD isotopes, an average calculated value of 5.9% of the DCGL was added to each sample. The average was calculated by adding the sample results for H-3 and Cm-243/244 of all the samples analyzed for those HTD isotopes, provided in Table 6 and dividing by the total number of samples analyzed for that radionuclide. This average value was applied to those samples that were not analyzed for HTD isotopes. If the sample was analyzed for HTDs, then the reported value was used instead of the average value.

NOTE: The off-site laboratory reported that all fifteen (15) of the samples analyzed for Ni-63, within this survey unit, had a negative value reported. These negative values when used to determine the fraction of the Operational DCGL for the Radionuclide(s) of Concern had a maximum effect of lowering the fraction of the Operational DCGL present by less than 2.5% and the corresponding assigned dose for this survey unit by less than 0.5* mrem/yr TEDE.

DISCHARGE CANAL
SURVEY UNIT 9106-0009

RELEASE RECORD

*[-13.6 pCi/g (Maximum reported negative value for Ni-63) ÷ 549 pCi/g (Operational DCGL for Ni-63) x 19 mrem/yr TEDE per DCGL = -0.471 mrem/yr TEDE ≈ -0.5 mrem/yr TEDE]

The off-site laboratory also processed four (4) 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 met the required MDC. Four (4) of the HTD radionuclides met the accepted criteria for detection (i.e., a result greater than two standard deviations uncertainty) in more than one sample. Each of the positive results for HTD radionuclides could be de-selected based on the 5% and 10% rules, with the exceptions of Cm-243/244 and H-3. These results are presented in Table 6.

Table 6-Hard-to-Detect Sample Results ⁽¹⁾			
Sample Number	H-3 pCi/g	Cm-243/244 pCi/g	Fraction of the Operational DCGL ⁽²⁾
9106-0009-002F	4.12	0.013	0.0138
9106-0009-011F	3.69	1.39	0.0750
9106-0009-014F	46.9	0.00	0.1498
9106-0009-017F	0.58	-0.073	-0.0015

(1) The Operational DCGL from Table 2 is 313 pCi/g for H-3 and 22.0 pCi/g for Cm-243/244.

(2) This represents the unity fraction of the DCGL from nuclides that are were not considered nuclides of concern from the FSS.

Biased samples were not called for in the sample plan.

7. QUALITY CONTROL

The off-site laboratory processed the split samples and performed gamma spectroscopy analysis. Two (2) of the samples were 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 and as detailed in HNP Procedure RPM 5.1-24, "Split Sample Assessment for Final Status Survey." There was acceptable agreement between the field split results for both of the "split sample" pairs tested.

The sample analysis vendor, General Engineering Laboratories (GEL) – Charleston, South Carolina, maintained quality control and quality assurance plans as part of normal operation. Refer to Attachment 2 for data and data quality analysis results.

8. INVESTIGATIONS AND RESULTS

No investigations were required to be performed since none of the sample results exceeded the investigation levels.

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9. REMEDIATION AND RESULTS

Historically, no radiological remedial action as described by MARSSIM Section 5.4 was performed in this survey unit prior to or as a result of the FSS. 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 to be unnecessary and that the remaining residual radioactivity in soil was ALARA.

10. CHANGES FROM THE FINAL STATUS SURVEY PLAN

The survey was designed to ten (10) mrem/yr TEDE which was conservative and necessary at the time of FSS planning. It is no longer required as the total dose from existing and future groundwater has been established. The dose for sediment used to demonstrate compliance with the LTP criteria is nineteen (19) mrem/yr TEDE as discussed in Section 2 of this Release Record.

11. DATA QUALITY ASSESSMENT (DQA)

The DQO sample design and data were reviewed in accordance with Procedure The DQO sample design and data were reviewed in accordance with Procedure RPM 5.1-23, "*Data Quality Assessment*." The sample 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 indicates that the survey unit passes the unrestricted release criterion, 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 2.

The preliminary data review consisted of calculating basic statistical quantities (e.g., mean, median, standard deviation). The sample standard deviation was slightly more than the value used for the survey design. This is represented by the shift in the retrospective power curve as shown in Attachment 2f. This would indicate a change to the original LBGR to maintain the number of samples at fifteen (15) to meet the Operational DCGL. However, the value of LBGR is less of a critical issue as the survey unit has passed the statistical test, and the mean and median values are well below the Operational DCGL when used in conjunction with the unity rule. 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 release criteria with adequate power as required by the DQOs.

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The range of the data, about 3.58 standard deviations, was not unusually large. The difference between the mean and median was 34% 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 shows some positive skewness as confirmed by the calculated skew of 1.52.

All data, assessments, and graphical representations are provided in Attachment 2.

12. ANOMALIES

The finding of two (2) HTD radionuclides in excess the screening criteria was the only anomaly associated with the FSS of this survey unit. Additionally, the testing of additional samples for HTDs has failed to yield additional positive results for either H-3 or Cm-243/244. For conservatism, the HTD results were factored into all statistical evaluations of the survey data for this survey unit accounting for any possible dose contributions. This action does not alter the conclusion that this survey unit meets the criteria for unconditional release.

No other anomalies were noted in the performance of this FSS.

13. CONCLUSION

Survey Unit 9106-0009 has demonstrated compliance with the dose based, unrestricted release criterion. The sample data passed the Sign Test and the null hypothesis was rejected. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved. Reclassification and remediation of this survey unit was not required.

Graphical representation of data indicates some positive skewness that is probably due to localized differences in particulate deposition rates, hydraulic velocity and sedimentation rates. The Retrospective Power Curve generated using COMPASS shows adequate power was achieved. The survey unit was properly designated as a Class 2 survey unit.

As stated in Section 6, all fifteen (15) sample results reported for Ni-63 were negative values. These negative values were used when determining the sum of the fractions (unity rule) and, therefore, lowered the reported fraction of the Operational DCGL. In the interests of conservatism, the maximum dose contribution from the negative impact of using these values will be added to the total dose for this survey unit. The maximum dose contribution for Ni-63 is less than 0.5 mrem/yr TEDE.

The dose contribution from sediment is 3.2 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

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This survey unit is not affected by existing groundwater (reference CY memo ISC 06-024). It has been determined that the dose contribution from groundwater sources is zero (0) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no 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.

The average total dose from residual radioactivity in this survey unit, including that from sediment, will not exceed 3.2 mrem/yr Total Effective Dose Equivalent (TEDE).

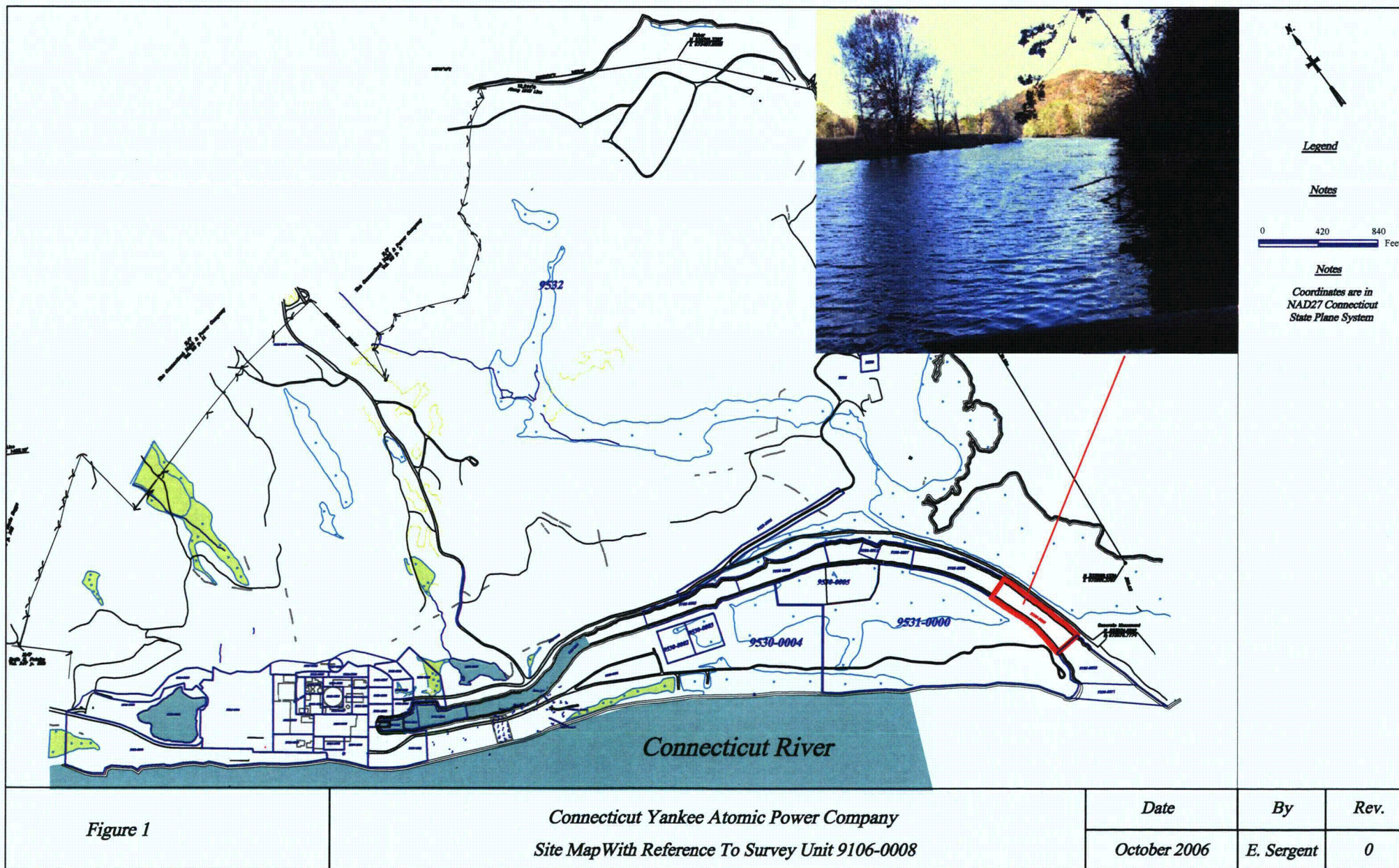
14. ATTACHMENTS

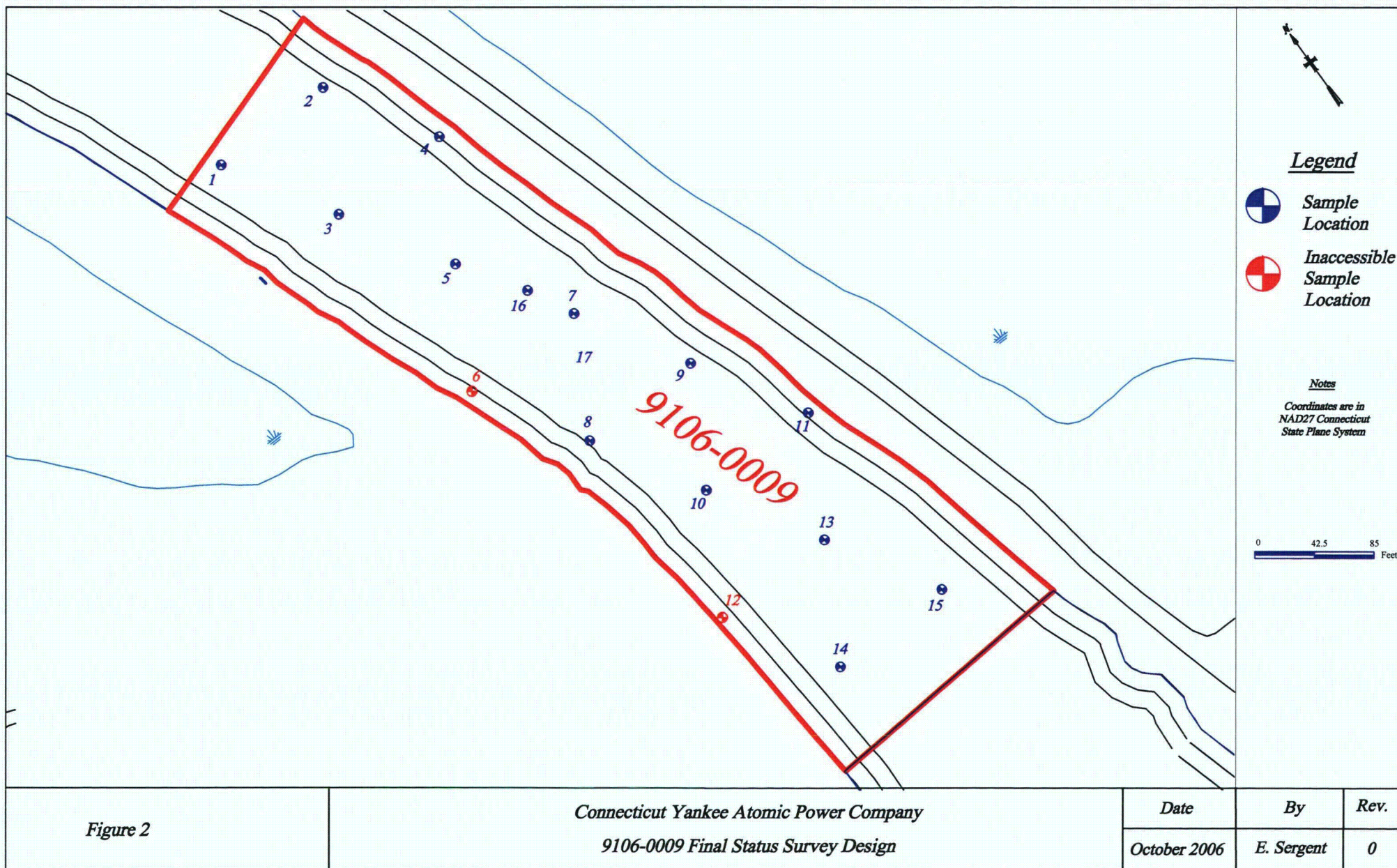
14.1 Attachment 1 – Figures

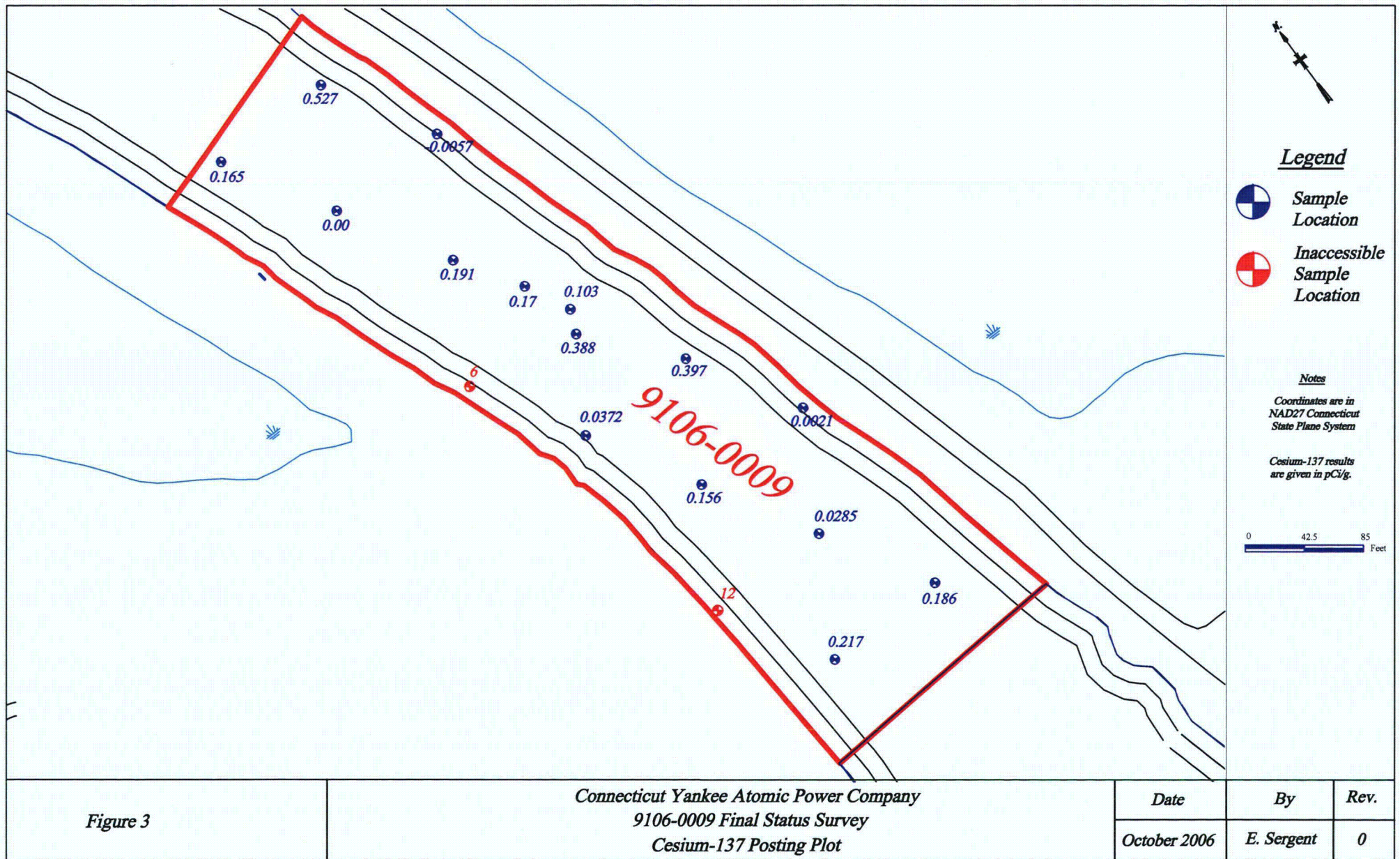
14.2 Attachment 2 – Sample and Statistical Data

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 1
Figures
(5 pages)







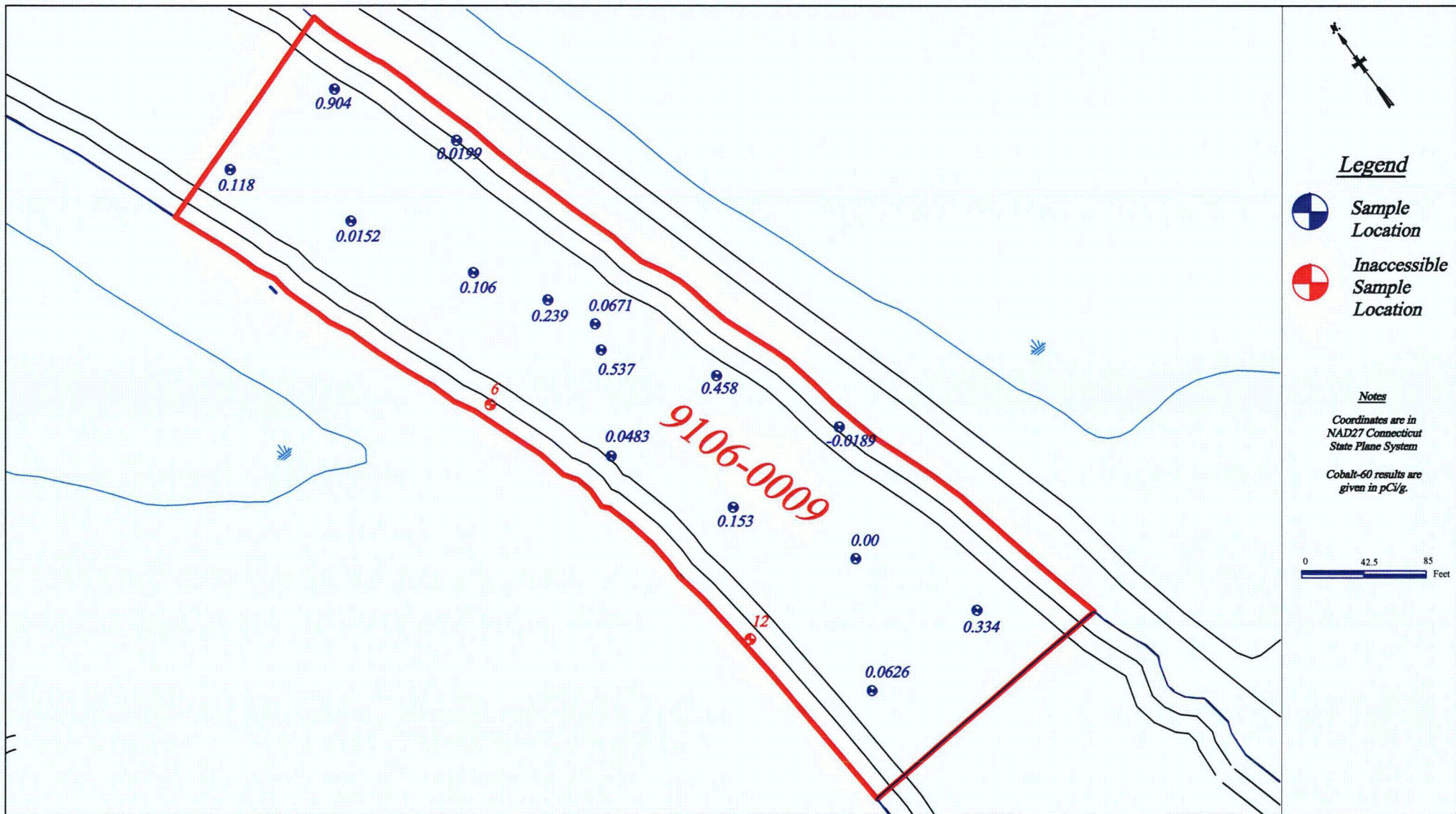


Figure 4

Connecticut Yankee Atomic Power Company
9106-0009 Final Status Survey
Cobalt-60 Posting Plot

Date	By	Rev.
October 2006	E. Sergent	0

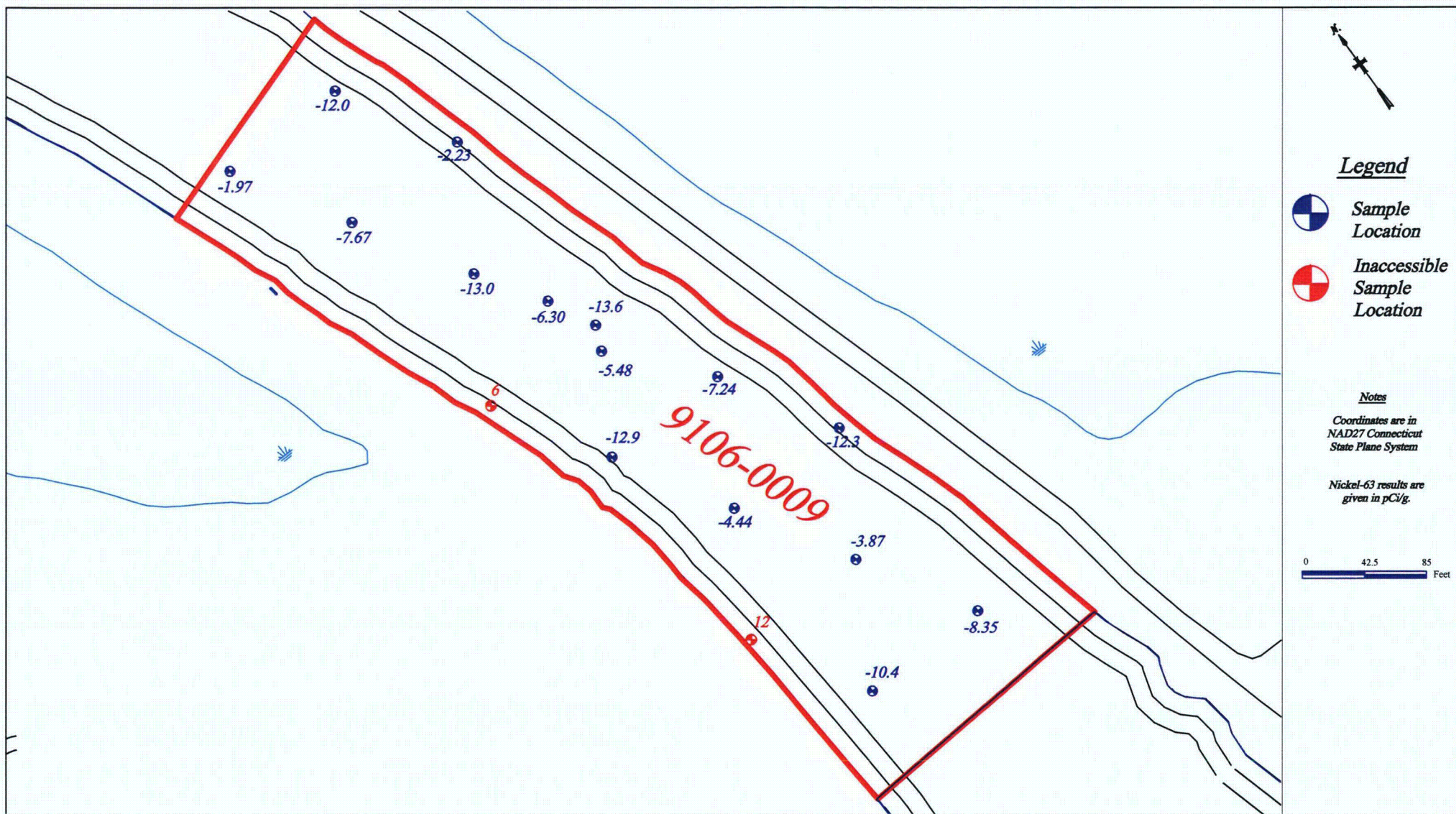


Figure 5

Connecticut Yankee Atomic Power Company
9106-0009 Final Status Survey
Nickel-63 Posting Plot

Date	By	Rev.
October 2006	E. Sergent	0

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 2
Sample and Statistical Data

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 2a
Sample Data
(179 Pages)

General Narrative

**CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soils
PO# 002332
Work Order: 164542
SDG: MSR #06-0818**

June 7, 2006

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on June 8, 2006. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

<u>Sample ID</u>	<u>Client Sample ID</u>
164542001	9106-0009-016F
164542002	9106-0009-016FS
164542003	9106-0009-017F
164542004	9106-0009-013F
164542005	9106-0009-013FS
164542006	9106-0009-015F
164542007	9106-0009-001F
164542008	9106-0009-002F
164542009	9106-0009-003F
164542010	9106-0009-004F
164542011	9106-0009-005F

GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

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

164542012	9106-0009-007F
164542013	9106-0009-008F
164542014	9106-0009-009F
164542015	9106-0009-010F
164542016	9106-0009-011F
164542017	9106-0009-014F

Items of Note:

There are no items of note.

Case Narrative:

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

Analytical Request:

Two soil samples were analyzed for FSSALL. Fifteen soil samples were analyzed for FSSGAM and Ni-63.

Internal Chain of Custody:

Custody was maintained for the sample(s).

Data Package:

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

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



Cheryl Jones
Project Manager

Chain of Custody and Supporting Documentation

164542-1.

Chain of Custody Form

No. 2006-00380

Connecticut Yankee Atomic Power Company

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 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Ni-63					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0009-016F	5/15/06	13:28	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-016FS	5/15/06	13:28	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-017F	5/15/06	14:03	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-011F	5/15/06	08:05	SE	C	BP		X				Transferred from COC 2006-00351			
9106-0009-013F	5/15/06	08:35	SE	C	BP	X		X			Transferred from COC 2006-00351			
9106-0009-013FS	5/15/06	08:35	SE	C	BP	X		X			Transferred from COC 2006-00351			
9106-0009-014F	5/15/06	08:59	SE	C	BP		X				Transferred from COC 2006-00351			
9106-0009-015F	5/15/06	09:36	SE	C	BP	X		X			Transferred from COC 2006-00351			
NOTES: PO #: 002332 MSR #: 06-0818 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 Jane Riccio			Date/Time 6-7-06/11:00			2) Received By [Signature]			Date/Time 6-8-06 9:00			Bill of Lading # 7921-1915 2868		
3) Relinquished By			Date/Time			4) Received By			Date/Time					

92
93
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164542/-

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00381

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Ni-63					Comments:		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID		
9106-0009-001F	5/11/06	13:22	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-002F	5/11/06	13:46	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-003F	5/11/06	14:06	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-004F	5/11/06	14:30	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-005F	5/11/06	14:55	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-007F	5/12/06	07:44	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-008F	5/12/06	08:16	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-009F	5/12/06	08:35	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-010F	5/12/06	09:07	SE	C	BP	X		X				Transferred from COC 2006-00348			
NOTES: PO #: 002332 MSR #: 06- 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 JAMIE RICARTE			Date/Time 6-7-06/11:00			2) Received By A. Maly			Date/Time 6/9/06 900			Bill of Lading # 7921 1915 2858			
3) Relinquished By			Date/Time			4) Received By			Date/Time						

2007
2008
2009
010
011
012
013
014
015

Cheryl 164542%
164551%

CPM 40

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 6-8-06 900

SDG#: MSR# 06-0819, 0818

Work Order Number: _____

Shipping Container ID: 7921-1915-2858 Chain of Custody #: 2006-00332
11-11-8756 2006-00380
2006-00381

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 20°C
5. Vermiculite/packing materials is: Wet ☐ Dry ☒
6. Number of samples in shipping container: _____
7. Sample holding times exceeded? Yes ☒ No ☐

8. Samples have:

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

9. Samples are:

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

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: Amaly Date: 6-8-06 900

Telephoned to: _____ On _____ By _____

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 164542**

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:	542293
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201121832	Method Blank (MB)
1201121833	165557001(1000-0000-119-C-1C-01) Sample Duplicate (DUP)
1201121834	165557001(1000-0000-119-C-1C-01) Matrix Spike (MS)
1201121835	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: 165557001 (1000-0000-119-C-1C-01).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:**NCR Documentation**

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

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The Cm-233/234 blank result is greater than the MDA but less than the detection limit.

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:	542294
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201121836	Method Blank (MB)
1201121837	165557001(1000-0000-119-C-1C-01) Sample Duplicate (DUP)
1201121838	165557001(1000-0000-119-C-1C-01) Matrix Spike (MS)
1201121839	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: 165557001 (1000-0000-119-C-1C-01).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. 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:	542295
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201121840	Method Blank (MB)
1201121841	165557001(1000-0000-119-C-1C-01) Sample Duplicate (DUP)
1201121842	165557001(1000-0000-119-C-1C-01) Matrix Spike (MS)
1201121843	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: 165557001 (1000-0000-119-C-1C-01).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from

referenced SOP or contractual documents. 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
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	537866
Prep Batch Number:	537124

Sample ID	Client ID
164542001	9106-0009-016F
164542002	9106-0009-016FS
164542003	9106-0009-017F
164542004	9106-0009-013F
164542005	9106-0009-013FS
164542006	9106-0009-015F
164542007	9106-0009-001F
164542008	9106-0009-002F
164542009	9106-0009-003F
164542010	9106-0009-004F
164542011	9106-0009-005F
164542012	9106-0009-007F
164542013	9106-0009-008F
164542014	9106-0009-009F
164542015	9106-0009-010F
164542016	9106-0009-011F
164542017	9106-0009-014F
1201111185	Method Blank (MB)
1201111186	164542001(9106-0009-016F) Sample Duplicate (DUP)
1201111187	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# 11.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

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

Sample Geometry

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

Quality Control (QC) Information:**Blank Information**

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

Designated QC

The following sample was used for QC: 164542001 (9106-0009-016F).

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

Samples 164542003 (9106-0009-017F) and 164542008 (9106-0009-002F) were recounted due to high MDAs.

Miscellaneous Information:**NCR Documentation**

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

Additional Comments

The sample and the duplicate, 1201111186 (9106-0009-016F) and 164542001 (9106-0009-016F), did not meet the relative percent difference requirement for Co-60. However, they do meet the relative error ratio requirement with a value of 1.7.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Bismuth-212	164542013
		Cesium-134	164542008
		Cesium-137	164542009
UI	Data rejected due to interference.	Europium-155	164542009
UI	Data rejected due to low abundance.	Bismuth-214	164542008
			164542015
		Cesium-134	164542003
			164542007
		Cobalt-60	164542004
UI	data rejected due to high peak width	Manganese-54	164542010
		Potassium-40	1201111185
UI	data rejected due to low abundance	Cesium-134	164542002
			164542004
			164542005
			164542016
			1201111186
		Niobium-94	164542005

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:	541208
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201119317	Method Blank (MB)
1201119318	164551004(9106-0002-019F) Sample Duplicate (DUP)
1201119319	164551004(9106-0002-019F) Matrix Spike (MS)
1201119320	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: 164551004 (9106-0002-019F).

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: 540445

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201117552	Method Blank (MB)
1201117553	165011005(1000-0000-125-C-1C-01) Sample Duplicate (DUP)
1201117554	165011005(1000-0000-125-C-1C-01) Matrix Spike (MS)
1201117555	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: 165011005 (1000-0000-125-C-1C-01).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. 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:	538969
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201113887	Method Blank (MB)
1201113888	163741008(9106-0008-007F) Sample Duplicate (DUP)
1201113889	163741008(9106-0008-007F) Matrix Spike (MS)
1201113890	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: 163741008 (9106-0008-007F).

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:	541424
Prep Batch Number:	537131
Dry Soil Prep GL-RAD-A-021 Batch Number:	537124

Sample ID	Client ID
164542001	9106-0009-016F
164542002	9106-0009-016FS
164542003	9106-0009-017F
164542004	9106-0009-013F
164542005	9106-0009-013FS
164542006	9106-0009-015F
164542007	9106-0009-001F
164542008	9106-0009-002F
164542009	9106-0009-003F
164542010	9106-0009-004F
164542011	9106-0009-005F
164542012	9106-0009-007F
164542013	9106-0009-008F
164542014	9106-0009-009F
164542015	9106-0009-010F
164542016	9106-0009-011F
164542017	9106-0009-014F
1201119883	Method Blank (MB)
1201119884	164542011(9106-0009-005F) Sample Duplicate (DUP)
1201119885	164542011(9106-0009-005F) Matrix Spike (MS)
1201119886	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: 164542011 (9106-0009-005F).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:**NCR Documentation**

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

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	LSC, Tritium Dist, Solid-HTD2,ALL FSS
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	542573

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201122404	Method Blank (MB)
1201122405	165702005(9106-0011-009F) Sample Duplicate (DUP)
1201122406	165702005(9106-0011-009F) Matrix Spike (MS)
1201122407	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# 12.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

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

Sample Geometry

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

Quality Control (QC) Information:

Blank Information

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

Designated QC

The following sample was used for QC: 165702005 (9106-0011-009F).

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: 545141

Sample ID	Client ID
164542016	9106-0009-011F
164542017	9106-0009-014F
1201128388	Method Blank (MB)
1201128389	165011012(1000-0000-120-C-1C-02) Sample Duplicate (DUP)
1201128390	165011012(1000-0000-120-C-1C-02) Matrix Spike (MS)
1201128391	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: 165011012 (1000-0000-120-C-1C-02).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Samples were 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.

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: _____

 7/11/06

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#06-0818 GEL Work Order: 164542

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: July 10, 2006

Client Sample ID: 9106-0009-016F
Sample ID: 164542001
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 32.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.865	+/-0.203	0.0598	+/-0.203	0.129	pCi/g						
Americium-241	U	0.0409	+/-0.0866	0.0774	+/-0.0866	0.159	pCi/g		MJH1	06/26/06	1925	537866	1
Bismuth-212		0.562	+/-0.221	0.149	+/-0.221	0.315	pCi/g						
Bismuth-214		0.556	+/-0.116	0.0341	+/-0.116	0.072	pCi/g						
Cesium-134	U	0.0263	+/-0.0382	0.0263	+/-0.0382	0.0553	pCi/g						
Cesium-137		0.170	+/-0.0433	0.0185	+/-0.0433	0.0392	pCi/g						
Cobalt-60		0.239	+/-0.0465	0.0197	+/-0.0465	0.0428	pCi/g						
Europium-152	U	0.0167	+/-0.0586	0.0506	+/-0.0586	0.105	pCi/g						
Europium-154	U	-0.0172	+/-0.0755	0.0623	+/-0.0755	0.134	pCi/g						
Europium-155	U	0.0597	+/-0.0887	0.0526	+/-0.0887	0.108	pCi/g						
Lead-212		0.938	+/-0.0991	0.0287	+/-0.0991	0.0594	pCi/g						
Lead-214		0.688	+/-0.114	0.0321	+/-0.114	0.0672	pCi/g						
Manganese-54	U	0.0262	+/-0.025	0.0225	+/-0.025	0.0474	pCi/g						
Niobium-94	U	-0.00291	+/-0.0206	0.0173	+/-0.0206	0.0366	pCi/g						
Potassium-40		14.4	+/-1.33	0.169	+/-1.33	0.372	pCi/g						
Radium-226		0.556	+/-0.116	0.0341	+/-0.116	0.072	pCi/g						
Silver-108m	U	-0.00368	+/-0.0205	0.0169	+/-0.0205	0.0355	pCi/g						
Thallium-208		0.327	+/-0.0551	0.0182	+/-0.0551	0.0384	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-6.3	+/-8.63	7.41	+/-8.63	15.2	pCi/g		SLN1	07/06/06	0552	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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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: July 10, 2006

Client Sample ID: 9106-0009-016F
Sample ID: 164542001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			93		(25%-125%)						

Notes:

The Qualifiers in this report are defined as follows :

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

The above sample is reported on a dry weight basis.

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: July 10, 2006

Client Sample ID: 9106-0009-016FS
Sample ID: 164542002
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 26.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.878	+/-0.189	0.0564	+/-0.189	0.122	pCi/g		MJH1	06/26/06	1925	537866	1
Americium-241	U	-0.0346	+/-0.106	0.081	+/-0.106	0.168	pCi/g						
Bismuth-212		0.587	+/-0.254	0.137	+/-0.254	0.292	pCi/g						
Bismuth-214		0.544	+/-0.0981	0.0327	+/-0.0981	0.0692	pCi/g						
Cesium-134	UI	0.00	+/-0.0439	0.0244	+/-0.0439	0.0514	pCi/g						
Cesium-137		0.231	+/-0.0415	0.0159	+/-0.0415	0.0339	pCi/g						
Cobalt-60		0.277	+/-0.061	0.0187	+/-0.061	0.0409	pCi/g						
Europium-152	U	0.0343	+/-0.0509	0.0443	+/-0.0509	0.0928	pCi/g						
Europium-154	U	-0.031	+/-0.0614	0.0487	+/-0.0614	0.107	pCi/g						
Europium-155	U	0.0255	+/-0.0856	0.0484	+/-0.0856	0.100	pCi/g						
Lead-212		0.856	+/-0.0896	0.0244	+/-0.0896	0.0508	pCi/g						
Lead-214		0.647	+/-0.105	0.0294	+/-0.105	0.0619	pCi/g						
Manganese-54	U	0.0155	+/-0.0227	0.0199	+/-0.0227	0.0423	pCi/g						
Niobium-94	U	-0.00637	+/-0.0187	0.0154	+/-0.0187	0.0327	pCi/g						
Potassium-40		13.0	+/-1.25	0.163	+/-1.25	0.361	pCi/g						
Radium-226		0.544	+/-0.0981	0.0327	+/-0.0981	0.0692	pCi/g						
Silver-108m	U	0.0129	+/-0.0157	0.0161	+/-0.0157	0.0337	pCi/g						
Thallium-208		0.285	+/-0.0473	0.0177	+/-0.0473	0.0374	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-11.8	+/-9.16	8.00	+/-9.17	16.4	pCi/g		SLN1	07/06/06	0614	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	88	(25%-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: July 10, 2006

Client Sample ID: 9106-0009-016FS
Sample ID: 164542002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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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
- 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: July 10, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 164542003
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 28.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.965	+/-0.265	0.082	+/-0.265	0.176	pCi/g		MJH1	07/06/06	1801	537866	1
Americium-241	U	0.0107	+/-0.0295	0.0256	+/-0.0295	0.0529	pCi/g						
Bismuth-212		0.823	+/-0.358	0.173	+/-0.358	0.370	pCi/g						
Bismuth-214		0.590	+/-0.108	0.0387	+/-0.108	0.0823	pCi/g						
Cesium-134	UI	0.00	+/-0.0622	0.0311	+/-0.0622	0.0659	pCi/g						
Cesium-137		0.388	+/-0.0535	0.0225	+/-0.0535	0.048	pCi/g						
Cobalt-60		0.537	+/-0.0744	0.0246	+/-0.0744	0.0541	pCi/g						
Europium-152	U	-0.0211	+/-0.062	0.0502	+/-0.062	0.106	pCi/g						
Europium-154	U	-0.00189	+/-0.0847	0.0701	+/-0.0847	0.153	pCi/g						
Europium-155	U	0.0848	+/-0.0505	0.0451	+/-0.0505	0.0933	pCi/g						
Lead-212		0.899	+/-0.0714	0.0289	+/-0.0714	0.0602	pCi/g						
Lead-214		0.693	+/-0.112	0.0345	+/-0.112	0.0728	pCi/g						
Manganese-54	U	0.00193	+/-0.0296	0.0244	+/-0.0296	0.0522	pCi/g						
Niobium-94	U	-0.00651	+/-0.0298	0.0212	+/-0.0298	0.0451	pCi/g						
Potassium-40		14.0	+/-1.07	0.158	+/-1.07	0.365	pCi/g						
Radium-226		0.590	+/-0.108	0.0387	+/-0.108	0.0823	pCi/g						
Silver-108m	U	0.0213	+/-0.0214	0.0198	+/-0.0214	0.0416	pCi/g						
Thallium-208		0.289	+/-0.0556	0.0197	+/-0.0556	0.0421	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-5.48	+/-9.76	8.34	+/-9.76	17.1	pCi/g		SLN1	07/06/06	0635	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	90	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 164542003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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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
- 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: July 10, 2006

Client Sample ID: 9106-0009-013F
Sample ID: 164542004
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 24.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.878	+/-0.180	0.0626	+/-0.180	0.135	pCi/g		MJH1	06/26/06	1925	537866	1
Americium-241	U	-0.047	+/-0.0919	0.0775	+/-0.0919	0.160	pCi/g						
Bismuth-212		0.870	+/-0.329	0.135	+/-0.329	0.288	pCi/g						
Bismuth-214		0.579	+/-0.0876	0.0328	+/-0.0876	0.0695	pCi/g						
Cesium-134	UI	0.00	+/-0.0372	0.0246	+/-0.0372	0.0519	pCi/g						
Cesium-137	U	0.0285	+/-0.0289	0.0185	+/-0.0289	0.0392	pCi/g						
Cobalt-60	UI	0.00	+/-0.0348	0.0197	+/-0.0348	0.0429	pCi/g						
Europium-152	U	0.0122	+/-0.0578	0.0497	+/-0.0578	0.104	pCi/g						
Europium-154	U	-0.00728	+/-0.0629	0.0533	+/-0.0629	0.116	pCi/g						
Europium-155	U	0.0493	+/-0.0549	0.0521	+/-0.0549	0.107	pCi/g						
Lead-212		0.976	+/-0.0702	0.0313	+/-0.0702	0.0645	pCi/g						
Lead-214		0.708	+/-0.0991	0.0337	+/-0.0991	0.0705	pCi/g						
Manganese-54	U	-0.0103	+/-0.0211	0.0171	+/-0.0211	0.0367	pCi/g						
Niobium-94	U	0.0208	+/-0.0204	0.0187	+/-0.0204	0.0394	pCi/g						
Potassium-40		14.9	+/-0.995	0.211	+/-0.995	0.457	pCi/g						
Radium-226		0.579	+/-0.0876	0.0328	+/-0.0876	0.0695	pCi/g						
Silver-108m	U	-0.00488	+/-0.0196	0.0161	+/-0.0196	0.0338	pCi/g						
Thallium-208		0.318	+/-0.0428	0.0166	+/-0.0428	0.0354	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-3.87	+/-9.05	7.70	+/-9.05	15.8	pCi/g		SLN1	07/06/06	0657	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	90	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-013F
Sample ID: 164542004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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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
- 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: July 10, 2006

Client Sample ID: 9106-0009-013FS
Sample ID: 164542005
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 25.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.08	+/-0.247	0.0754	+/-0.247	0.164	pCi/g		MJH1	06/26/06	1926	537866	1
Americium-241	U	-0.0339	+/-0.120	0.0907	+/-0.120	0.188	pCi/g						
Bismuth-212		0.626	+/-0.363	0.200	+/-0.363	0.426	pCi/g						
Bismuth-214		0.787	+/-0.144	0.0454	+/-0.144	0.0963	pCi/g						
Cesium-134	UI	0.00	+/-0.0439	0.0285	+/-0.0439	0.0608	pCi/g						
Cesium-137	U	0.0462	+/-0.0552	0.0241	+/-0.0552	0.0514	pCi/g						
Cobalt-60	U	-0.0278	+/-0.0303	0.0217	+/-0.0303	0.0482	pCi/g						
Europium-152	U	-0.0132	+/-0.0736	0.0615	+/-0.0736	0.130	pCi/g						
Europium-154	U	0.0371	+/-0.0932	0.0794	+/-0.0932	0.172	pCi/g						
Europium-155	U	0.145	+/-0.113	0.0744	+/-0.113	0.154	pCi/g						
Lead-212		1.13	+/-0.128	0.0357	+/-0.128	0.0747	pCi/g						
Lead-214		0.940	+/-0.149	0.045	+/-0.149	0.0947	pCi/g						
Manganese-54	U	0.00369	+/-0.0305	0.026	+/-0.0305	0.0556	pCi/g						
Niobium-94	UI	0.00	+/-0.0696	0.019	+/-0.0696	0.0409	pCi/g						
Potassium-40		18.6	+/-1.66	0.206	+/-1.66	0.459	pCi/g						
Radium-226		0.787	+/-0.144	0.0454	+/-0.144	0.0963	pCi/g						
Silver-108m	U	0.0214	+/-0.0237	0.021	+/-0.0237	0.0445	pCi/g						
Thallium-208		0.370	+/-0.0703	0.0216	+/-0.0703	0.0463	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-9.09	+/-8.91	7.72	+/-8.91	15.8	pCi/g		SLN1	07/06/06	0754	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	89	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-013FS
Sample ID: 164542005

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

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

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: July 10, 2006

Client Sample ID: 9106-0009-015F
Sample ID: 164542006
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 29.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.750	+/-0.165	0.069	+/-0.165	0.149	pCi/g		MJH1	06/26/06	1926	537866	1
Americium-241	U	0.0322	+/-0.123	0.0837	+/-0.123	0.173	pCi/g						
Bismuth-212		0.554	+/-0.339	0.154	+/-0.339	0.328	pCi/g						
Bismuth-214		0.469	+/-0.0923	0.0348	+/-0.0923	0.0741	pCi/g						
Cesium-134	U	0.0282	+/-0.0277	0.0257	+/-0.0277	0.0545	pCi/g						
Cesium-137		0.186	+/-0.0599	0.0185	+/-0.0599	0.0397	pCi/g						
Cobalt-60		0.334	+/-0.0531	0.0185	+/-0.0531	0.0412	pCi/g						
Europium-152	U	-0.0216	+/-0.0531	0.0465	+/-0.0531	0.098	pCi/g						
Europium-154	U	-0.0217	+/-0.0697	0.0571	+/-0.0697	0.125	pCi/g						
Europium-155	U	0.0396	+/-0.0659	0.0536	+/-0.0659	0.111	pCi/g						
Lead-212		0.872	+/-0.0677	0.0275	+/-0.0677	0.0573	pCi/g						
Lead-214		0.602	+/-0.103	0.034	+/-0.103	0.0716	pCi/g						
Manganese-54	U	0.0235	+/-0.0254	0.0229	+/-0.0254	0.0488	pCi/g						
Niobium-94	U	-0.00451	+/-0.0206	0.0172	+/-0.0206	0.0367	pCi/g						
Potassium-40		12.8	+/-0.916	0.172	+/-0.916	0.385	pCi/g						
Radium-226		0.469	+/-0.0923	0.0348	+/-0.0923	0.0741	pCi/g						
Silver-108m	U	-0.0106	+/-0.0194	0.0165	+/-0.0194	0.035	pCi/g						
Thallium-208		0.282	+/-0.0509	0.0187	+/-0.0509	0.0398	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-8.35	+/-12.6	10.8	+/-12.6	22.2	pCi/g		SLN1	07/06/06	0816	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-I, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	72	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-015F
Sample ID: 164542006

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

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

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: July 10, 2006

Client Sample ID: 9106-0009-001F
Sample ID: 164542007
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 38.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.947	+/-0.162	0.0626	+/-0.162	0.136	pCi/g		MJH1	06/26/06	2131	537866	1
Americium-241	U	-0.0496	+/-0.0955	0.0742	+/-0.0955	0.153	pCi/g						
Bismuth-212		0.584	+/-0.331	0.146	+/-0.331	0.313	pCi/g						
Bismuth-214		0.642	+/-0.110	0.0346	+/-0.110	0.0734	pCi/g						
Cesium-134	UI	0.00	+/-0.0515	0.0279	+/-0.0515	0.0589	pCi/g						
Cesium-137		0.165	+/-0.0351	0.0181	+/-0.0351	0.0387	pCi/g						
Cobalt-60		0.118	+/-0.0475	0.0219	+/-0.0475	0.048	pCi/g						
Europium-152	U	-0.0188	+/-0.0592	0.0474	+/-0.0592	0.0995	pCi/g						
Europium-154	U	-0.013	+/-0.0795	0.0666	+/-0.0795	0.144	pCi/g						
Europium-155	U	0.052	+/-0.0744	0.0472	+/-0.0744	0.0979	pCi/g						
Lead-212		1.04	+/-0.0711	0.0275	+/-0.0711	0.0571	pCi/g						
Lead-214		0.766	+/-0.0898	0.0323	+/-0.0898	0.0681	pCi/g						
Manganese-54	U	0.0113	+/-0.0265	0.0228	+/-0.0265	0.0485	pCi/g						
Niobium-94	U	0.0108	+/-0.0212	0.0185	+/-0.0212	0.0393	pCi/g						
Potassium-40		15.6	+/-1.05	0.164	+/-1.05	0.369	pCi/g						
Radium-226		0.642	+/-0.110	0.0346	+/-0.110	0.0734	pCi/g						
Silver-108m	U	0.0094	+/-0.0195	0.0174	+/-0.0195	0.0366	pCi/g						
Thallium-208		0.375	+/-0.056	0.0164	+/-0.056	0.0353	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-1.97	+/-9.30	7.86	+/-9.30	16.1	pCi/g		SLN1	07/06/06	0837	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1335	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	97	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-001F
Sample ID: 164542007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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Notes:

The Qualifiers in this report are defined as follows :

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 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
 - UI Gamma Spectroscopy—Uncertain identification
 - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
 - Y QC Samples were not spiked with this compound
 - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
 - h Preparation or preservation holding time was exceeded
- The above sample is reported on a dry weight basis.

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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: July 10, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 164542008
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 36.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.933	+/-0.325	0.132	+/-0.325	0.282	pCi/g		MJH1	07/06/06	1801	537866	1
Americium-241	U	0.0584	+/-0.0515	0.0426	+/-0.0515	0.0878	pCi/g						
Bismuth-212		0.963	+/-0.481	0.261	+/-0.481	0.558	pCi/g						
Bismuth-214	UI	0.00	+/-0.157	0.122	+/-0.157	0.252	pCi/g						
Cesium-134	UI	0.00	+/-0.090	0.0391	+/-0.090	0.0836	pCi/g						
Cesium-137		0.527	+/-0.0887	0.0329	+/-0.0887	0.070	pCi/g						
Cobalt-60		0.904	+/-0.124	0.0357	+/-0.124	0.0783	pCi/g						
Europium-152	U	-0.00341	+/-0.0841	0.0727	+/-0.0841	0.153	pCi/g						
Europium-154	U	0.0363	+/-0.117	0.101	+/-0.117	0.220	pCi/g						
Europium-155	U	0.00509	+/-0.0767	0.0659	+/-0.0767	0.136	pCi/g						
Lead-212		1.04	+/-0.102	0.0392	+/-0.102	0.0819	pCi/g						
Lead-214		0.872	+/-0.160	0.0543	+/-0.160	0.114	pCi/g						
Manganese-54	U	-0.00711	+/-0.0458	0.0369	+/-0.0458	0.0789	pCi/g						
Niobium-94	U	0.0283	+/-0.0342	0.0302	+/-0.0342	0.0643	pCi/g						
Potassium-40		15.1	+/-1.36	0.285	+/-1.36	0.638	pCi/g						
Radium-226		0.864	+/-0.157	0.0544	+/-0.157	0.116	pCi/g						
Silver-108m	U	0.0067	+/-0.0301	0.0261	+/-0.0301	0.0551	pCi/g						
Thallium-208		0.313	+/-0.0898	0.0353	+/-0.0898	0.0748	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-12	+/-9.86	8.60	+/-9.87	17.6	pCi/g		SLN1	07/06/06	0859	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	86	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 164542008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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Notes:

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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: July 10, 2006

Client Sample ID: 9106-0009-003F
Sample ID: 164542009
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 46.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.831	+/-0.208	0.0672	+/-0.208	0.146	pCi/g		MJH1	06/26/06	2131	537866	1
Americium-241	U	-0.0139	+/-0.109	0.0816	+/-0.109	0.168	pCi/g						
Bismuth-212		0.915	+/-0.395	0.154	+/-0.395	0.330	pCi/g						
Bismuth-214		0.479	+/-0.140	0.0406	+/-0.140	0.0859	pCi/g						
Cesium-134	U	0.051	+/-0.0395	0.0275	+/-0.0395	0.0583	pCi/g						
Cesium-137	UI	0.00	+/-0.0699	0.0204	+/-0.0699	0.0434	pCi/g						
Cobalt-60	U	0.0152	+/-0.0258	0.0228	+/-0.0258	0.0499	pCi/g						
Europium-152	U	-0.00268	+/-0.0629	0.052	+/-0.0629	0.109	pCi/g						
Europium-154	U	-0.0552	+/-0.0912	0.0716	+/-0.0912	0.155	pCi/g						
Europium-155	UI	0.00	+/-0.154	0.0554	+/-0.154	0.115	pCi/g						
Lead-212		0.989	+/-0.112	0.0314	+/-0.112	0.0653	pCi/g						
Lead-214		0.777	+/-0.126	0.0373	+/-0.126	0.0784	pCi/g						
Manganese-54	U	0.0118	+/-0.0292	0.0248	+/-0.0292	0.0528	pCi/g						
Niobium-94	U	-0.0184	+/-0.0231	0.0181	+/-0.0231	0.0385	pCi/g						
Potassium-40		13.5	+/-1.42	0.214	+/-1.42	0.472	pCi/g						
Radium-226		0.479	+/-0.140	0.0406	+/-0.140	0.0859	pCi/g						
Silver-108m	U	-0.0159	+/-0.0225	0.0174	+/-0.0225	0.0368	pCi/g						
Thallium-208		0.320	+/-0.0617	0.0201	+/-0.0617	0.0428	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-7.67	+/-9.42	8.11	+/-9.42	16.6	pCi/g		SLN1	07/06/06	0920	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	84	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-003F
Sample ID: 164542009

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

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

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Certificate of Analysis

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-004F
Sample ID: 164542010
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 39.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.627	+/-0.164	0.0613	+/-0.164	0.132	pCi/g		MJH1	06/26/06	2132	537866	1
Americium-241	U	-0.0965	+/-0.143	0.0901	+/-0.143	0.187	pCi/g						
Bismuth-212		0.708	+/-0.249	0.136	+/-0.249	0.290	pCi/g						
Bismuth-214		0.564	+/-0.084	0.027	+/-0.084	0.0576	pCi/g						
Cesium-134	U	0.00218	+/-0.0433	0.0201	+/-0.0433	0.0428	pCi/g						
Cesium-137	U	-0.00566	+/-0.0197	0.0162	+/-0.0197	0.0346	pCi/g						
Cobalt-60	U	0.0199	+/-0.026	0.0211	+/-0.026	0.0457	pCi/g						
Europium-152	U	0.0303	+/-0.0491	0.0422	+/-0.0491	0.0887	pCi/g						
Europium-154	U	0.0292	+/-0.0621	0.0547	+/-0.0621	0.119	pCi/g						
Europium-155	U	0.0584	+/-0.0685	0.0477	+/-0.0685	0.0988	pCi/g						
Lead-212		0.641	+/-0.0581	0.0256	+/-0.0581	0.0533	pCi/g						
Lead-214		0.603	+/-0.0845	0.031	+/-0.0845	0.065	pCi/g						
Manganese-54	UI	0.00	+/-0.0295	0.0141	+/-0.0295	0.0308	pCi/g						
Niobium-94	U	-0.000263	+/-0.018	0.0151	+/-0.018	0.0321	pCi/g						
Potassium-40		12.7	+/-0.870	0.127	+/-0.870	0.290	pCi/g						
Radium-226		0.564	+/-0.084	0.027	+/-0.084	0.0576	pCi/g						
Silver-108m	U	-0.000165	+/-0.0166	0.0145	+/-0.0166	0.0306	pCi/g						
Thallium-208		0.204	+/-0.044	0.0167	+/-0.044	0.0355	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-2.23	+/-9.09	7.69	+/-9.10	15.8	pCi/g		SLN1	07/06/06	0942	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	87	(25%-125%)

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-004F
Sample ID: 164542010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
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East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: July 10, 2006

Client Sample ID: 9106-0009-005F
Sample ID: 164542011
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 37.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.810	+/-0.177	0.0514	+/-0.177	0.110	pCi/g		MJH1	06/26/06	2352	537866	1
Americium-241	U	-0.0635	+/-0.0844	0.0694	+/-0.0844	0.143	pCi/g						
Bismuth-212		0.572	+/-0.216	0.118	+/-0.216	0.251	pCi/g						
Bismuth-214		0.563	+/-0.0915	0.0261	+/-0.0915	0.0552	pCi/g						
Cesium-134	U	0.00	+/-0.0319	0.0209	+/-0.0319	0.0438	pCi/g						
Cesium-137		0.191	+/-0.0424	0.0143	+/-0.0424	0.0303	pCi/g						
Cobalt-60		0.106	+/-0.0417	0.0169	+/-0.0417	0.0366	pCi/g						
Europium-152	U	0.0201	+/-0.0463	0.0396	+/-0.0463	0.0825	pCi/g						
Europium-154	U	0.0417	+/-0.0763	0.0437	+/-0.0763	0.0949	pCi/g						
Europium-155	U	0.0655	+/-0.0642	0.0423	+/-0.0642	0.0871	pCi/g						
Lead-212		0.847	+/-0.0862	0.0217	+/-0.0862	0.0449	pCi/g						
Lead-214		0.593	+/-0.090	0.026	+/-0.090	0.0544	pCi/g						
Manganese-54	U	0.0171	+/-0.0157	0.0135	+/-0.0157	0.0289	pCi/g						
Niobium-94	U	-0.00235	+/-0.0154	0.0129	+/-0.0154	0.0273	pCi/g						
Potassium-40		12.5	+/-1.17	0.107	+/-1.17	0.242	pCi/g						
Radium-226		0.563	+/-0.0915	0.0261	+/-0.0915	0.0552	pCi/g						
Silver-108m	U	0.00649	+/-0.0144	0.013	+/-0.0144	0.0273	pCi/g						
Thallium-208		0.259	+/-0.0444	0.0143	+/-0.0444	0.0302	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-13	+/-9.02	7.92	+/-9.03	16.3	pCi/g		SLN1	07/06/06	1003	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
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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: July 10, 2006

Client Sample ID: 9106-0009-005F
Sample ID: 164542011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			93		(25%-125%)						

Notes:

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- 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: July 10, 2006

Client Sample ID: 9106-0009-007F
Sample ID: 164542012
Matrix: SE
Collect Date: 12-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 26.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.843	+/-0.157	0.060	+/-0.157	0.130	pCi/g		MJH1	06/26/06	2132	537866	1
Americium-241	U	0.0298	+/-0.0903	0.0777	+/-0.0903	0.160	pCi/g						
Bismuth-212		0.329	+/-0.305	0.137	+/-0.305	0.294	pCi/g						
Bismuth-214		0.499	+/-0.102	0.0344	+/-0.102	0.0728	pCi/g						
Cesium-134	U	0.00886	+/-0.0266	0.0231	+/-0.0266	0.049	pCi/g						
Cesium-137		0.103	+/-0.048	0.0176	+/-0.048	0.0376	pCi/g						
Cobalt-60		0.0671	+/-0.0364	0.0187	+/-0.0364	0.0413	pCi/g						
Europium-152	U	0.0806	+/-0.0694	0.0476	+/-0.0694	0.0998	pCi/g						
Europium-154	U	0.020	+/-0.0702	0.0617	+/-0.0702	0.134	pCi/g						
Europium-155	U	0.0584	+/-0.0521	0.0494	+/-0.0521	0.102	pCi/g						
Lead-212		0.752	+/-0.0686	0.0291	+/-0.0686	0.0602	pCi/g						
Lead-214		0.660	+/-0.0977	0.0328	+/-0.0977	0.0689	pCi/g						
Manganese-54	U	0.0129	+/-0.0245	0.0215	+/-0.0245	0.0457	pCi/g						
Niobium-94	U	-0.00677	+/-0.0196	0.0163	+/-0.0196	0.0348	pCi/g						
Potassium-40		12.7	+/-0.968	0.139	+/-0.968	0.316	pCi/g						
Radium-226		0.499	+/-0.102	0.0344	+/-0.102	0.0728	pCi/g						
Silver-108m	U	0.00329	+/-0.0197	0.0165	+/-0.0197	0.0347	pCi/g						
Thallium-208		0.272	+/-0.0473	0.0175	+/-0.0473	0.0372	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-13.6	+/-9.31	8.18	+/-9.32	16.8	pCi/g		SLN1	07/06/06	1025	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	87	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-007F
Sample ID: 164542012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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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
- 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: July 10, 2006

Client Sample ID: 9106-0009-008F
Sample ID: 164542013
Matrix: SE
Collect Date: 12-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 21%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.400	+/-0.170	0.0803	+/-0.170	0.176	pCi/g		MJH1	06/26/06	2132	537866	1
Americium-241	U	0.0209	+/-0.089	0.085	+/-0.089	0.178	pCi/g						
Bismuth-212	UI	0.00	+/-0.369	0.166	+/-0.369	0.361	pCi/g						
Bismuth-214		0.384	+/-0.0728	0.0346	+/-0.0728	0.0753	pCi/g						
Cesium-134	U	0.0266	+/-0.0264	0.0252	+/-0.0264	0.0548	pCi/g						
Cesium-137	U	0.0372	+/-0.0247	0.0193	+/-0.0247	0.0422	pCi/g						
Cobalt-60	U	0.0483	+/-0.0265	0.0275	+/-0.0265	0.0607	pCi/g						
Europium-152	U	-0.0559	+/-0.0623	0.0511	+/-0.0623	0.109	pCi/g						
Europium-154	U	0.014	+/-0.0855	0.0647	+/-0.0855	0.145	pCi/g						
Europium-155	U	0.00754	+/-0.062	0.0566	+/-0.062	0.118	pCi/g						
Lead-212		0.624	+/-0.0725	0.031	+/-0.0725	0.0652	pCi/g						
Lead-214		0.362	+/-0.0776	0.0329	+/-0.0776	0.0708	pCi/g						
Manganese-54	U	0.00129	+/-0.0255	0.0219	+/-0.0255	0.0479	pCi/g						
Niobium-94	U	-0.0174	+/-0.0227	0.0182	+/-0.0227	0.0396	pCi/g						
Potassium-40		10.5	+/-1.01	0.184	+/-1.01	0.425	pCi/g						
Radium-226		0.384	+/-0.0728	0.0346	+/-0.0728	0.0753	pCi/g						
Silver-108m	U	0.0113	+/-0.018	0.0181	+/-0.018	0.0389	pCi/g						
Thallium-208		0.160	+/-0.0447	0.0201	+/-0.0447	0.0436	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-12.9	+/-9.03	7.92	+/-9.04	16.3	pCi/g		SLN1	07/06/06	1046	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	90	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-008F
Sample ID: 164542013

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

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

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-009F
Sample ID: 164542014
Matrix: SE
Collect Date: 12-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 31.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.760	+/-0.142	0.0393	+/-0.142	0.0821	pCi/g		MJH1	06/26/06	2358	537866	1
Americium-241	U	0.0365	+/-0.0489	0.0459	+/-0.0489	0.0937	pCi/g						
Bismuth-212		0.474	+/-0.180	0.081	+/-0.180	0.169	pCi/g						
Bismuth-214		0.563	+/-0.080	0.0203	+/-0.080	0.0422	pCi/g						
Cesium-134	U	0.00	+/-0.0352	0.015	+/-0.0352	0.0311	pCi/g						
Cesium-137		0.397	+/-0.0495	0.0113	+/-0.0495	0.0235	pCi/g						
Cobalt-60		0.458	+/-0.0512	0.0108	+/-0.0512	0.0229	pCi/g						
Europium-152	U	0.00306	+/-0.033	0.0293	+/-0.033	0.0605	pCi/g						
Europium-154	U	-0.0266	+/-0.0415	0.033	+/-0.0415	0.0695	pCi/g						
Europium-155	U	0.0544	+/-0.0564	0.0349	+/-0.0564	0.0715	pCi/g						
Lead-212		0.817	+/-0.0755	0.018	+/-0.0755	0.037	pCi/g						
Lead-214		0.630	+/-0.0768	0.0202	+/-0.0768	0.0418	pCi/g						
Manganese-54	U	0.0157	+/-0.0198	0.0108	+/-0.0198	0.0227	pCi/g						
Niobium-94	U	0.00147	+/-0.0115	0.0102	+/-0.0115	0.0211	pCi/g						
Potassium-40		13.2	+/-0.946	0.0857	+/-0.946	0.184	pCi/g						
Radium-226		0.563	+/-0.080	0.0203	+/-0.080	0.0422	pCi/g						
Silver-108m	U	0.0022	+/-0.0118	0.0103	+/-0.0118	0.0213	pCi/g						
Thallium-208		0.236	+/-0.0379	0.0112	+/-0.0379	0.0233	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-7.24	+/-8.52	7.35	+/-8.53	15.1	pCi/g		SLN1	07/06/06	1108	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	94	(25%-125%)

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-009F
Sample ID: 164542014

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

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

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Certificate of Analysis

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-010F
Sample ID: 164542015
Matrix: SE
Collect Date: 12-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 24.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.886	+/-0.280	0.109	+/-0.280	0.235	pCi/g		MJH1	06/26/06	2133	537866	1
Americium-241	U	0.0401	+/-0.0443	0.0427	+/-0.0443	0.0881	pCi/g						
Bismuth-212	U	0.345	+/-0.308	0.216	+/-0.308	0.465	pCi/g						
Bismuth-214	UI	0.00	+/-0.117	0.104	+/-0.117	0.214	pCi/g						
Cesium-134	U	0.0774	+/-0.0559	0.0375	+/-0.0559	0.0798	pCi/g						
Cesium-137		0.156	+/-0.0589	0.0307	+/-0.0589	0.0654	pCi/g						
Cobalt-60		0.153	+/-0.0827	0.0293	+/-0.0827	0.0648	pCi/g						
Europium-152	U	0.00473	+/-0.0824	0.073	+/-0.0824	0.153	pCi/g						
Europium-154	U	0.117	+/-0.161	0.104	+/-0.161	0.225	pCi/g						
Europium-155	U	0.0356	+/-0.0726	0.0668	+/-0.0726	0.138	pCi/g						
Lead-212		0.640	+/-0.0741	0.0404	+/-0.0741	0.0842	pCi/g						
Lead-214		0.528	+/-0.123	0.0492	+/-0.123	0.104	pCi/g						
Manganese-54	U	0.0199	+/-0.0374	0.0335	+/-0.0374	0.0716	pCi/g						
Niobium-94	U	-0.0113	+/-0.031	0.0263	+/-0.031	0.0562	pCi/g						
Potassium-40		12.5	+/-1.19	0.255	+/-1.19	0.570	pCi/g						
Radium-226		0.527	+/-0.117	0.0544	+/-0.117	0.116	pCi/g						
Silver-108m	U	-0.00285	+/-0.0268	0.023	+/-0.0268	0.0489	pCi/g						
Thallium-208		0.170	+/-0.0791	0.0318	+/-0.0791	0.0673	pCi/g						
Rad Liquid Scintillation Analysis													
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-4.44	+/-8.42	7.19	+/-8.43	14.8	pCi/g		SLN1	07/06/06	1129	541424	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	DOE RESL Ni-1, Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	96	(25%-125%)

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-010F
Sample ID: 164542015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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Notes:

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 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
 - UI Gamma Spectroscopy--Uncertain identification
 - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
 - Y QC Samples were not spiked with this compound
 - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
 - h Preparation or preservation holding time was exceeded
- The above sample is reported on a dry weight basis.

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Certificate of Analysis

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

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-011F
Sample ID: 164542016
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 19.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0337	+/-0.0307	0.00784	+/-0.0311	0.0343	pCi/g	LCW1	06/29/06	1420	542293	1	
Curium-242	U	0.00634	+/-0.0168	0.00951	+/-0.0168	0.0416	pCi/g						
Curium-243/244		1.39	+/-0.192	0.00787	+/-0.268	0.0344	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00347	+/-0.015	0.0116	+/-0.015	0.0429	pCi/g	LCW1	06/28/06	1831	542294	2	
Plutonium-239/240	U	0.00	+/-0.0142	0.00	+/-0.0142	0.0196	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	0.137	+/-0.947	0.914	+/-0.947	1.87	pCi/g	LCW1	07/03/06	0815	542295	3	
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.638	+/-0.158	0.0456	+/-0.158	0.0992	pCi/g	MJH1	06/26/06	2133	537866	4	
Americium-241	U	0.0559	+/-0.064	0.0573	+/-0.064	0.119	pCi/g						
Bismuth-212		0.415	+/-0.242	0.104	+/-0.242	0.224	pCi/g						
Bismuth-214		0.449	+/-0.087	0.0259	+/-0.087	0.0554	pCi/g						
Cesium-134	UI	0.00	+/-0.0377	0.0191	+/-0.0377	0.0406	pCi/g						
Cesium-137	U	0.00214	+/-0.0184	0.0138	+/-0.0184	0.0297	pCi/g						
Cobalt-60	U	-0.0233	+/-0.017	0.0112	+/-0.017	0.0254	pCi/g						
Europium-152	U	-0.0189	+/-0.045	0.0394	+/-0.045	0.083	pCi/g						
Europium-154	U	-0.0121	+/-0.0562	0.0459	+/-0.0562	0.0999	pCi/g						
Europium-155	U	0.036	+/-0.0542	0.051	+/-0.0542	0.106	pCi/g						
Lead-212		0.691	+/-0.0767	0.0239	+/-0.0767	0.050	pCi/g						
Lead-214		0.473	+/-0.0774	0.0271	+/-0.0774	0.0572	pCi/g						
Manganese-54	U	-0.00471	+/-0.017	0.0145	+/-0.017	0.0313	pCi/g						
Niobium-94	U	0.00946	+/-0.0154	0.0142	+/-0.0154	0.0303	pCi/g						
Potassium-40		12.5	+/-1.07	0.124	+/-1.07	0.278	pCi/g						
Radium-226		0.449	+/-0.087	0.0259	+/-0.087	0.0554	pCi/g						
Silver-108m	U	-0.00842	+/-0.0138	0.0115	+/-0.0138	0.0246	pCi/g						
Thallium-208		0.209	+/-0.0433	0.0129	+/-0.0433	0.0277	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00446	+/-0.0171	0.0187	+/-0.0171	0.0408	pCi/g	BXF1	07/05/06	1218	541208	5	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	3.69	+/-6.09	4.96	+/-6.09	10.3	pCi/g	EGD1	07/04/06	2212	542573	6	
<i>Liquid Scint C14, Solid All, FSS</i>													

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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: July 10, 2006

Client Sample ID: 9106-0009-011F
Sample ID: 164542016

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
<i>Liquid Scint C14, Solid-ALL FSS</i>													
Carbon-14	U	-0.104	+/-0.106	0.0938	+/-0.106	0.196	pCi/g		ATH2	07/07/06	0636	545141	7
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-1.14	+/-17.3	13.2	+/-17.3	27.7	pCi/g		SLN1	06/21/06	0918	538969	9
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	-12.3	+/-10.3	8.94	+/-10.3	18.3	pCi/g		SLN1	07/06/06	1151	541424	10
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.0332	+/-0.224	0.189	+/-0.224	0.391	pCi/g		EGD1	06/25/06	1429	540445	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

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	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	82	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	86	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	53	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	88	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	87	(25%-125%)

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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: July 10, 2006

Client Sample ID: 9106-0009-011F
Sample ID: 164542016

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			80		(15%-125%)						

Notes:

The Qualifiers in this report are defined as follows :

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

The above sample is reported on a dry weight basis.

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Certificate of Analysis

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

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-014F
Sample ID: 164542017
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-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	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241		0.0409	+/-0.0368	0.00926	+/-0.0372	0.0405	pCi/g		LCW1	06/29/06	1420	542293	1
Curium-242	U	0.00987	+/-0.0193	0.00	+/-0.0194	0.0267	pCi/g						
Curium-243/244	U	0.00	+/-0.016	0.00	+/-0.016	0.0221	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.00477	+/-0.035	0.0355	+/-0.035	0.0888	pCi/g		LCW1	06/28/06	1831	542294	2
Plutonium-239/240	U	0.0122	+/-0.0276	0.0227	+/-0.0276	0.0632	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	0.178	+/-0.928	0.894	+/-0.928	1.83	pCi/g		LCW1	07/03/06	0916	542295	3
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.630	+/-0.140	0.0406	+/-0.140	0.0868	pCi/g		MJH1	06/26/06	2358	537866	4
Americium-241	U	-0.0604	+/-0.101	0.0856	+/-0.101	0.177	pCi/g						
Bismuth-212		0.354	+/-0.240	0.0907	+/-0.240	0.192	pCi/g						
Bismuth-214		0.425	+/-0.0691	0.0249	+/-0.0691	0.0521	pCi/g						
Cesium-134	U	0.0297	+/-0.0188	0.0155	+/-0.0188	0.0326	pCi/g						
Cesium-137		0.217	+/-0.0362	0.0124	+/-0.0362	0.0262	pCi/g						
Cobalt-60		0.0626	+/-0.0272	0.0132	+/-0.0272	0.0286	pCi/g						
Europium-152	U	0.00425	+/-0.0405	0.0348	+/-0.0405	0.0723	pCi/g						
Europium-154	U	-0.0165	+/-0.0486	0.0402	+/-0.0486	0.0862	pCi/g						
Europium-155	U	0.0508	+/-0.041	0.0398	+/-0.041	0.0819	pCi/g						
Lead-212		0.657	+/-0.076	0.0186	+/-0.076	0.0385	pCi/g						
Lead-214		0.466	+/-0.0758	0.0237	+/-0.0758	0.0495	pCi/g						
Manganese-54	U	-0.00251	+/-0.0156	0.013	+/-0.0156	0.0276	pCi/g						
Niobium-94	U	-0.000424	+/-0.0148	0.0111	+/-0.0148	0.0234	pCi/g						
Potassium-40		11.4	+/-0.985	0.110	+/-0.985	0.242	pCi/g						
Radium-226		0.425	+/-0.0691	0.0249	+/-0.0691	0.0521	pCi/g						
Silver-108m	U	-0.00822	+/-0.0128	0.0111	+/-0.0128	0.0232	pCi/g						
Thallium-208		0.207	+/-0.037	0.0121	+/-0.037	0.0255	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.0285	+/-0.0137	0.0197	+/-0.0137	0.0423	pCi/g		BXF1	07/05/06	1218	541208	5
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium		46.9	+/-8.04	5.06	+/-8.08	10.5	pCi/g		EGD1	07/04/06	2244	542573	6
<i>Liquid Scint C14, Solid All, FSS</i>													

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

Report Date: July 10, 2006

Client Sample ID: 9106-0009-014F
Sample ID: 164542017

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
<i>Liquid Scint C14, Solid ALL FSS</i> Carbon-14	U	0.00873	+/-0.113	0.0948	+/-0.113	0.198	pCi/g		ATH2	07/07/06	0724	545141	7
<i>Liquid Scint Fe55, Solid-ALL FSS</i> Iron-55	U	5.21	+/-16.9	12.5	+/-16.9	26.3	pCi/g		SLN1	06/21/06	0934	538969	9
<i>Liquid Scint Ni63, Solid-ALL FSS</i> Nickel-63	U	-10.4	+/-10.9	9.41	+/-10.9	19.3	pCi/g		SLN1	07/06/06	1212	541424	10
<i>Liquid Scint Tc99, Solid-ALL FSS</i> Technetium-99	U	-0.0446	+/-0.211	0.178	+/-0.211	0.368	pCi/g		EGD1	06/25/06	1446	540445	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXP2	06/08/06	1336	537124

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	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	69	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	101	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	86	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	66	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	82	(25%-125%)

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Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: July 10, 2006

Client Sample ID: 9106-0009-014F
Sample ID: 164542017

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			83		(15%-125%)						

Notes:

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- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
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- 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

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Report Date: July 10, 2006
Page 1 of 9

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 164542

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	542293										
QC1201121833	165557001	DUP									
Americium-241	U	0.0069		0.0442	pCi/g	146		(0% - 100%)	LCW1	06/29/06	14:20
	Uncert:	+/-0.013		+/-0.0412							
	TPU:	+/-0.013		+/-0.0417							
Curium-242	U	0.00685	U	-0.00258	pCi/g	442		(0% - 100%)			
	Uncert:	+/-0.0134		+/-0.0217							
	TPU:	+/-0.0135		+/-0.0217							
Curium-243/244	U	0.00332	U	0.0176	pCi/g	137		(0% - 100%)			
	Uncert:	+/-0.0132		+/-0.0282							
	TPU:	+/-0.0132		+/-0.0283							
QC1201121835	LCS										
Americium-241	2.68			2.84	pCi/g		106	(75%-125%)			
	Uncert:			+/-0.266							
	TPU:			+/-0.426							
Curium-242			U	0.00	pCi/g						
	Uncert:			+/-0.0129							
	TPU:			+/-0.0129							
Curium-243/244	3.26			3.05	pCi/g		94	(75%-125%)			
	Uncert:			+/-0.276							
	TPU:			+/-0.452							
QC1201121832	MB										
Americium-241			U	0.0049	pCi/g						
	Uncert:			+/-0.0157							
	TPU:			+/-0.0157							
Curium-242			U	0.00	pCi/g						
	Uncert:			+/-0.0141							
	TPU:			+/-0.0141							
Curium-243/244				0.0424	pCi/g						
	Uncert:			+/-0.034							
	TPU:			+/-0.0343							
QC1201121834	165557001	MS									
Americium-241	2.73	U	0.0069	2.70	pCi/g		99	(75%-125%)			
	Uncert:		+/-0.013	+/-0.250							
	TPU:		+/-0.013	+/-0.398							
Curium-242		U	0.00685	0.00644	pCi/g						
	Uncert:		+/-0.0134	+/-0.0126							
	TPU:		+/-0.0135	+/-0.0126							
Curium-243/244	3.33	U	0.00332	3.12	pCi/g		94	(75%-125%)			
	Uncert:		+/-0.0132	+/-0.269							
	TPU:		+/-0.0132	+/-0.447							
Batch	542294										
QC1201121837	165557001	DUP									
Plutonium-238	U	0.0117	U	0.0162	pCi/g	32		(0% - 100%)	LCW1	06/28/06	23:03

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time							
Rad Alpha Spec																		
Batch	542294																	
Plutonium-239/240	U	Uncert:	+/-0.0336	+/-0.0281	pCi/g	125	(0% - 100%)											
		TPU:	+/-0.0336	+/-0.0281														
		0.00369	U	0.0159														
		Uncert:	+/-0.0147	+/-0.0221														
		TPU:	+/-0.0147	+/-0.0221														
QC1201121839	LCS																	
Plutonium-238			U	0.00893	pCi/g		(75%-125%)			06/28/06	23:03							
Plutonium-239/240	2.48	Uncert:		+/-0.0143	pCi/g		85	(75%-125%)										
		TPU:		+/-0.0143														
		Uncert:		+/-0.202														
		TPU:		+/-0.302														
		QC1201121836	MB															
Plutonium-238			U	-0.00137	pCi/g					06/28/06	23:03							
Plutonium-239/240		Uncert:		+/-0.0115	pCi/g													
		TPU:		+/-0.0115														
		Uncert:		+/-0.0115														
		TPU:		+/-0.0115														
		QC1201121838	165557001	MS														
Plutonium-238		U	0.0117	0.0336	pCi/g		(75%-125%)			06/28/06	23:03							
Plutonium-239/240	2.52	Uncert:	+/-0.0336	+/-0.0295	pCi/g		91	(75%-125%)										
		TPU:	+/-0.0336	+/-0.0297														
		Uncert:	0.00369	2.28														
		Uncert:	+/-0.0147	+/-0.242														
		TPU:	+/-0.0147	+/-0.355														
Batch	542295																	
QC1201121841	165557001	DUP																
Plutonium-241		U	0.395	U	1.16	pCi/g	0	(0% - 100%)	LCW1	07/03/06	16:27							
Plutonium-241		Uncert:	+/-1.29	+/-1.89	pCi/g		78	(75%-125%)										
		TPU:	+/-1.29	+/-1.89														
		QC1201121843	LCS															
		35.0		27.3										07/03/06	18:31			
		Uncert:		+/-1.43														
Plutonium-241		TPU:		+/-3.02	pCi/g													
		QC1201121840	MB															
		U	0.499											07/03/06	15:26			
		Uncert:		+/-0.891														
		TPU:		+/-0.893														
QC1201121842	165557001	MS																
Plutonium-241		U	0.395	31.7	pCi/g		90	(75%-125%)		07/03/06	17:29							
Plutonium-241		Uncert:	+/-1.29	+/-1.58	pCi/g													
		TPU:	+/-1.29	+/-3.43														
		Uncert:		+/-0.191														
		TPU:		+/-0.191														
		Batch	537866															
QC1201111186	164542001	DUP																
Actinium-228			0.865	1.05	pCi/g	19	(0% - 100%)	MJH1	06/28/06	22:50								
Actinium-228		Uncert:	+/-0.203	+/-0.191	pCi/g													
		TPU:		+/-0.191														
		Uncert:		+/-0.191														
		TPU:		+/-0.191														
		Batch	537866															

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 537866											
Americium-241	U	TPU:	+/-0.203								
			0.0409	U	-0.00664	pCi/g	277	(0% - 100%)			
		Uncert:	+/-0.0866		+/-0.123						
Bismuth-212		TPU:	+/-0.0866		+/-0.123						
			0.562		0.777	pCi/g	32	(0% - 100%)			
		Uncert:	+/-0.221		+/-0.333						
Bismuth-214		TPU:	+/-0.221		+/-0.333						
			0.556		0.668	pCi/g	18	(0% - 100%)			
		Uncert:	+/-0.116		+/-0.0991						
Cesium-134	U	TPU:	+/-0.116		+/-0.0991						
			0.0263	UI	0.00	pCi/g	104	(0% - 100%)			
		Uncert:	+/-0.0382		+/-0.0355						
Cesium-137		TPU:	+/-0.0382		+/-0.0355						
			0.170		0.173	pCi/g	2	(0% - 100%)			
		Uncert:	+/-0.0433		+/-0.0473						
Cobalt-60		TPU:	+/-0.0433		+/-0.0473						
			0.239		0.175	pCi/g	31	(0% - 100%)			
		Uncert:	+/-0.0465		+/-0.0566						
Europium-152	U	TPU:	+/-0.0465		+/-0.0566						
			0.0167	U	0.0185	pCi/g	10	(0% - 100%)			
		Uncert:	+/-0.0586		+/-0.0562						
Europium-154	U	TPU:	+/-0.0586		+/-0.0562						
			-0.0172	U	-0.00751	pCi/g	78	(0% - 100%)			
		Uncert:	+/-0.0755		+/-0.0707						
Europium-155	U	TPU:	+/-0.0755		+/-0.0707						
			0.0597	U	0.0287	pCi/g	70	(0% - 100%)			
		Uncert:	+/-0.0887		+/-0.0603						
Lead-212		TPU:	+/-0.0887		+/-0.0603						
			0.938		0.904	pCi/g	4	(0% - 20%)			
		Uncert:	+/-0.0991		+/-0.0688						
Lead-214		TPU:	+/-0.0991		+/-0.0688						
			0.688		0.671	pCi/g	3	(0% - 20%)			
		Uncert:	+/-0.114		+/-0.0836						
Manganese-54	U	TPU:	+/-0.114		+/-0.0836						
			0.0262	U	0.0253	pCi/g	3	(0% - 100%)			
		Uncert:	+/-0.025		+/-0.0234						
Niobium-94	U	TPU:	+/-0.025		+/-0.0234						
			-0.00291	U	0.0118	pCi/g	331	(0% - 100%)			
		Uncert:	+/-0.0206		+/-0.0201						
Potassium-40		TPU:	+/-0.0206		+/-0.0201						
			14.4		14.3	pCi/g	1	(0% - 20%)			
		Uncert:	+/-1.33		+/-1.02						
Radium-226		TPU:	+/-1.33		+/-1.02						
			0.556		0.668	pCi/g	18	(0% - 100%)			
		Uncert:	+/-0.116		+/-0.0991						
Silver-108m	U	TPU:	+/-0.116		+/-0.0991						
			-0.00368	U	-0.0118	pCi/g	105	(0% - 100%)			
		Uncert:	+/-0.0205		+/-0.0182						

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	537866										
Thallium-208		TPU:	+/-0.0205	+/-0.0182							
			0.327	0.317	pCi/g	3		(0% - 100%)			
		Uncert:	+/-0.0551	+/-0.0499							
		TPU:	+/-0.0551	+/-0.0499							
QC1201111187	LCS										
Actinium-228				U	-0.00725	pCi/g				06/26/06	20:54
		Uncert:		+/-0.547							
		TPU:		+/-0.547							
Americium-241		23.4		25.4	pCi/g		109	(75%-125%)			
		Uncert:		+/-4.04							
		TPU:		+/-4.04							
Bismuth-212				U	0.122	pCi/g					
		Uncert:		+/-1.02							
		TPU:		+/-1.02							
Bismuth-214				U	-0.0901	pCi/g					
		Uncert:		+/-0.245							
		TPU:		+/-0.245							
Cesium-134				U	0.0536	pCi/g					
		Uncert:		+/-0.148							
		TPU:		+/-0.148							
Cesium-137		9.63		9.82	pCi/g		102	(75%-125%)			
		Uncert:		+/-0.782							
		TPU:		+/-0.782							
Cobalt-60		14.9		15.0	pCi/g		100	(75%-125%)			
		Uncert:		+/-1.13							
		TPU:		+/-1.13							
Europium-152				U	-0.193	pCi/g					
		Uncert:		+/-0.334							
		TPU:		+/-0.334							
Europium-154				U	0.107	pCi/g					
		Uncert:		+/-0.334							
		TPU:		+/-0.334							
Europium-155				U	-0.15	pCi/g					
		Uncert:		+/-0.350							
		TPU:		+/-0.350							
Lead-212				U	-0.0252	pCi/g					
		Uncert:		+/-0.185							
		TPU:		+/-0.185							
Lead-214				U	-0.025	pCi/g					
		Uncert:		+/-0.223							
		TPU:		+/-0.223							
Manganese-54				U	0.0331	pCi/g					
		Uncert:		+/-0.154							
		TPU:		+/-0.154							
Niobium-94				U	0.0941	pCi/g					
		Uncert:		+/-0.127							
		TPU:		+/-0.127							
Potassium-40				U	1.25	pCi/g					

GENERAL ENGINEERING LABORATORIES, LLC

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	537866									
			Uncert:							
			TPU:							
Radium-226		U	-0.0901	pCi/g			(75%-125%)			
			Uncert:							
			TPU:							
Silver-108m		U	-0.0742	pCi/g						
			Uncert:							
			TPU:							
Thallium-208		U	0.0403	pCi/g						
			Uncert:							
			TPU:							
QC1201111185 MB										
Actinium-228		U	0.0114	pCi/g					06/28/06	22:49
			Uncert:							
			TPU:							
Americium-241		U	-0.0051	pCi/g						
			Uncert:							
			TPU:							
Bismuth-212		U	0.078	pCi/g						
			Uncert:							
			TPU:							
Bismuth-214		U	0.0244	pCi/g						
			Uncert:							
			TPU:							
Cesium-134		U	0.00203	pCi/g						
			Uncert:							
			TPU:							
Cesium-137		U	0.0037	pCi/g						
			Uncert:							
			TPU:							
Cobalt-60		U	-0.00123	pCi/g						
			Uncert:							
			TPU:							
Europium-152		U	-0.00865	pCi/g						
			Uncert:							
			TPU:							
Europium-154		U	0.016	pCi/g						
			Uncert:							
			TPU:							
Europium-155		U	-0.0182	pCi/g						
			Uncert:							
			TPU:							
Lead-212		U	0.0187	pCi/g						
			Uncert:							
			TPU:							
Lead-214		U	0.0118	pCi/g						
			Uncert:							
			TPU:							

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	537866										
Manganese-54			U	-0.00601	pCi/g						
		Uncert:		+/-0.0127							
		TPU:		+/-0.0127							
Niobium-94			U	-0.00535	pCi/g						
		Uncert:		+/-0.0123							
		TPU:		+/-0.0123							
Potassium-40			UI	0.00	pCi/g						
		Uncert:		+/-0.246							
		TPU:		+/-0.246							
Radium-226			U	0.0244	pCi/g						
		Uncert:		+/-0.0241							
		TPU:		+/-0.0241							
Silver-108m			U	-0.0068	pCi/g						
		Uncert:		+/-0.0102							
		TPU:		+/-0.0102							
Thallium-208			U	0.013	pCi/g						
		Uncert:		+/-0.0121							
		TPU:		+/-0.0121							
Rad Gas Flow											
Batch	541208										
QC1201119318	164551004	DUP									
Strontium-90			U	-0.0131	U	-0.0114	pCi/g	0	(0% - 100%)	BXF1	07/05/06 12:18
		Uncert:		+/-0.0146		+/-0.0131					
		TPU:		+/-0.0146		+/-0.0131					
QC1201119320	LCS										
Strontium-90		1.38			1.27	pCi/g		92	(75%-125%)		07/05/06 14:24
		Uncert:			+/-0.0859						
		TPU:			+/-0.0943						
QC1201119317	MB										
Strontium-90			U	0.00252	pCi/g						07/05/06 12:18
		Uncert:		+/-0.0114							
		TPU:		+/-0.0114							
QC1201119319	164551004	MS									
Strontium-90		2.55	U	-0.0131		2.38	pCi/g		93	(75%-125%)	07/05/06 14:25
		Uncert:		+/-0.0146		+/-0.153					
		TPU:		+/-0.0146		+/-0.169					
Rad Liquid Scintillation											
Batch	538969										
QC1201113888	163741008	DUP									
Iron-55			U	21.1	U	-1.03	pCi/g	0	(0% - 100%)	SLN1	06/21/06 10:23
		Uncert:		+/-18.3		+/-16.3					
		TPU:		+/-18.5		+/-16.3					
QC1201113890	LCS										
Iron-55		575			529	pCi/g		92	(75%-125%)		06/21/06 10:40
		Uncert:			+/-44.0						
		TPU:			+/-86.2						
QC1201113887	MB										
Iron-55			U	5.38	pCi/g						06/21/06 09:51

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QC Summary

Workorder: 164542

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Parmname				NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation														
Batch		538969												
				Uncert:										
				TPU:										
QC1201113889	163741008	MS												
Iron-55				594	U	21.1		546	pCi/g		92	(75%-125%)		06/21/06 10:07
				Uncert:										
				TPU:										
Batch		540445												
QC1201117553	165011005	DUP												
Technetium-99					U	-0.151	U	0.0323	pCi/g	0		(0% - 100%)	EGD1	06/25/06 18:35
				Uncert:										
				TPU:										
QC1201117555	LCS													
Technetium-99				12.7				12.1	pCi/g		96	(75%-125%)		06/25/06 19:07
				Uncert:										
				TPU:										
QC1201117552	MB													
Technetium-99							U	0.0683	pCi/g					06/25/06 18:18
				Uncert:										
				TPU:										
QC1201117554	165011005	MS												
Technetium-99				22.4	U	-0.151		20.2	pCi/g		90	(75%-125%)		06/25/06 18:51
				Uncert:										
				TPU:										
Batch		541424												
QC1201119884	164542011	DUP												
Nickel-63					U	-13	U	-11.5	pCi/g	0		(0% - 100%)	SLN1	07/06/06 12:55
				Uncert:										
				TPU:										
QC1201119886	LCS													
Nickel-63				512				408	pCi/g		80	(75%-125%)		07/06/06 13:38
				Uncert:										
				TPU:										
QC1201119883	MB													
Nickel-63							U	-7.86	pCi/g					07/06/06 12:34
				Uncert:										
				TPU:										
QC1201119885	164542011	MS												
Nickel-63				553	U	-13		474	pCi/g		86	(75%-125%)		07/06/06 13:17
				Uncert:										
				TPU:										
Batch		542573												
QC1201122405	165702005	DUP												
Tritium					U	2.71	U	4.56	pCi/g	0		(0% - 100%)	EGD1	07/05/06 04:00
				Uncert:										
				TPU:										
QC1201122407	LCS													
Tritium				61.0				62.7	pCi/g		103	(75%-125%)		07/05/06 05:03
				Uncert:										
				TPU:										

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QC Summary

Workorder: 164542

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	542573										
QC1201122404	MB										
Tritium			U	8.19	pCi/g					07/05/06	03:28
		Uncert:		+/-6.12							
		TPU:		+/-6.12							
QC1201122406	165702005	MS									
Tritium		63.4	U	2.71	71.0	pCi/g	112	(75%-125%)		07/05/06	04:32
		Uncert:		+/-6.22	+/-8.48						
		TPU:		+/-6.22	+/-8.57						
Batch	545141										
QC1201128389	165011012	DUP									
Carbon-14			U	-0.20	-0.23	pCi/g	0	(0% - 100%)	ATH2	07/07/06	18:35
		Uncert:		+/-0.313	+/-0.300						
		TPU:		+/-0.313	+/-0.300						
QC1201128391	LCS										
Carbon-14		7.13		6.63	pCi/g	93	(75%-125%)			07/07/06	19:40
		Uncert:		+/-0.504							
		TPU:		+/-0.514							
QC1201128388	MB										
Carbon-14			U	-0.0833	pCi/g					07/07/06	17:48
		Uncert:		+/-0.098							
		TPU:		+/-0.098							
QC1201128390	165011012	MS									
Carbon-14		21.5	U	-0.20	20.9	pCi/g	97	(75%-125%)		07/07/06	19:23
		Uncert:		+/-0.313	+/-1.56						
		TPU:		+/-0.313	+/-1.59						

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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QC Summary

Workorder: 164542

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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

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil
PO# 002332

Work Order: 168404

SDG: MSR #06-0652, 06-0675, 06-0687, 06-0688, 06-0707, 06-0743, 06-0755

August 15, 2006

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712

Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road

Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on May 5, May 9, May 12, May 17, May 26, June 2, June 8, 2006. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

<u>Sample ID</u>	<u>Client Sample ID</u>
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F

GENERAL ENGINEERING LABORATORIES, LLC

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

168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F

Items of Note:

At the request of Dale Randall on July 20, 2006, GEL analyzed the above samples according to the spreadsheet in the attached email.

Case Narrative:

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

Analytical Request:

Seven soil samples were reanalyzed for FSSALL, except gamma and Sr-90.
Four soil samples were reanalyzed for FSSALL, except gamma and Ni-63.
Two soil samples were reanalyzed for FSSALL, except gamma.
Two soil samples were reanalyzed for FSALL, except gamma, Sr-90 and Ni-63.

Internal Chain of Custody:

Custody was maintained for the sample(s).

Data Package:

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

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



Cheryl Jones
Project Manager

1684041

Subject: Additional HTD analyses

From: "Dale Randall" <randall@cyapco.com>

Date: Thu, 20 Jul 2006 11:04:54 -0400

To: "Cheryl Jones" <cj@gel.com>

CC: "Clyde Newson" <Newson@CYAPCO.com>, "John McCarthy" <McCarthy@CYAPCO.com>

Cheryl:

Per our earlier discussion, attached is a list of samples that we would like to have analyzed to the FSSALL protocol. I have included a list of test protocols performed on each sample to date. Once you have had an opportunity to determine our options for each sample please call or e-mail me at your convenience.

Thank You,

Dale

(860) 267-3133

GEL FSSALL analyses request.xls

Content-Description: GEL FSSALL analyses request.xls

Content-Type: application/vnd.ms-excel

Content-Encoding: base64

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		Done			To be done								
Previous													
GEL ID	CY sample location IDs	FSS Gam	Sr-90	Ni-63	Am	Pu	Sr90	Pu241	Fe55	Ni63	Tc99	H3	C14
164220008	9106-0002-007F	x	x		x	x		x	x	x	x	x	x
164220012	9106-0002-011F	x	x		x	x		x	x	x	x	x	x
162335004	9106-0003-004F	x			x	x	x	x	x	x	x	x	x
162335014	9106-0003-015F	x			x	x	x	x	x	x	x	x	x
162832015	9106-0004-005F	x	x		x	x		x	x	x	x	x	x
162832009	9106-0004-015F	x	x		x	x		x	x	x	x	x	x
162485008	9106-0005-010F	x	x		x	x		x	x	x	x	x	x
162485011	9106-0005-014F	x	x		x	x		x	x	x	x	x	x
162850014	9106-0006-005F	x	x		x	x		x	x	x	x	x	x
163741005	9106-0008-006F	x	x	x	x	x		x	x		x	x	x
163741009	9106-0008-008F	x	x	x	x	x		x	x		x	x	x
164542008	9106-0009-002F	x		x	x	x	x	x	x		x	x	x
164542003	9106-0009-017F	x		x	x	x	x	x	x		x	x	x
163105009	9106-0010-001F	x		x	x	x	x	x	x		x	x	x
163105016	9106-0010-012F	x		x	x	x	x	x	x		x	x	x

Chain of Custody and Supporting Documentation

Relog 168404

Health Physics Procedure

GPP-GGGR-R5104-003-Attachment B-CY-001 Major

Chain of Custody Form

No. 2006-00371

Connecticut Yankee Atomic Power Company

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

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.

Analyses Requested

Lab Use Only

Comments:

164220%

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
9106-0002-001F	5/17/06	10:42	SE	C	BP	X		X				Transferred from COC 2006-00357	
9106-0002-002F	5/18/06	09:43	SE	C	BP		X					Transferred from COC 2006-00361	
9106-0002-003F	5/18/06	10:14	SE	C	BP	X		X				Transferred from COC 2006-00361	
9106-0002-004F	5/18/06	10:39	SE	C	BP	X		X				Transferred from COC 2006-00361	
9106-0002-005F	5/18/06	12:49	SE	C	BP	X		X				Transferred from COC 2006-00364	
9106-0002-006F	5/18/06	13:14	SE	C	BP	X		X				Transferred from COC 2006-00364	
9106-0002-006FS	5/18/06	13:14	SE	C	BP	X		X				Transferred from COC 2006-00364	
9106-0002-007F	5/18/06	13:37	SE	C	BP	X		X				Transferred from COC 2006-00364	
9106-0002-008F	5/18/06	14:04	SE	C	BP	X		X				Transferred from COC 2006-00364	

NOTES: PO #: 002332 MSR #: 06- SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA
0755

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7909 4145 5710

Internal Container Temp.: _____

Deg. C

Custody

Sealed?

Custody Seal Intact?

Y ☐ N ☐

1) Relinquished By

Date/Time

6-1-06 0815

2) Received By

Date/Time

6-02-06 9:20

3) Relinquished By

Date/Time

4) Received By

Date/Time

5) Relinquished By

Date/Time

6) Received By

Date/Time

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

No. 2006-00372


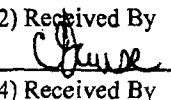
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID	
9106-0002-009F	5/18/06	14:28	SE	C	BP		X					Transferred from COC 2006-00364		
9106-0002-010F	5/18/06	14:50	SE	C	BP	X		X				Transferred from COC 2006-00364		
9106-0002-011F	5/19/06	08:10	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-012F	5/19/06	08:31	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-013F	5/19/06	09:00	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-014F	5/19/06	09:58	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-014FS	5/19/06	09:58	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-015F	5/19/06	10:29	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-016F	5/19/06	13:19	SE	C	BP	X		X				Transferred from COC 2006-00365		
NOTES: PO #: 002332 MSR #: 06- SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA 0755											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? Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By 			Date/Time 6/10/06 0815			2) Received By 			Date/Time 6-2-06 9:20			Bill of Lading # 7909 4145 5709		
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: 6-2-06 9:20

SDG#: MSR# 06-0755

Work Order Number: 1642201

Shipping Container ID: 7909 41455710 Chain of Custody #: 2006-00321

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 23°
5. Vermiculite/packing materials is: Wet ☐ Dry ☐ no packing Bot wet
6. Number of samples in shipping container: 9
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: C. Gause Date: 6-2-06

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 6-2-06 9:20

SDG#: MSR#06-0755

Work Order Number: 1642201

Shipping Container ID: 1909 4145 5109 Chain of Custody #: 2006-00372

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 23°

5. Vermiculite/packing materials is: Wet ☐ Dry ☐ no packing
bot wet

6. Number of samples in shipping container: 9

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: Conducta Date: 6-2-06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

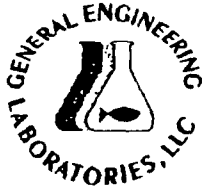
PM use only

Client: <u>Connecticut Yankee</u>			SDG/ARCO/Work Order: <u>164220</u>		
Date Received: <u>6-2-06</u>			PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>Cheryl Jones</u>		
Received By: <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?				<u>COC # 2006-00371</u>
14 Air Bill ,Tracking #'s, & Additional Comments				

Suspected Hazard Information		Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?				Maximum Counts Observed*: <u>25 CPM</u>
B	PCB Regulated?	✓			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	✓			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification:	Initials <u>[Signature]</u>	Date: <u>6/2/06</u>
--	-----------------------------	---------------------



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCOC/Work Order: <u>164220</u>
Date Received: <u>6-2-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>CF</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?				COC # <u>2006-00372</u> <u>00372</u> <u>06/2/06</u>
14 Air Bill, Tracking #'s, & Additional Comments				

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?				*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?				Maximum Counts Observed*: <u>200 CPM</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Comments:
				Hazard Class Shipped:
				UN#:
PM (or PMA) review of Hazard classification:				Initials <u>CF</u> Date: <u>6/2/06</u>

Chain of Custody Form

No. 2006-00312

Connecticut Yankee Atomic Power Company

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

162334% 162335% CD 5/5/06

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested				Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments:
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC, 29407 843 556 8171. Attn. Cheryl Jones													
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.													
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID	
9106-0003-001F	4/24/06	14:13	SE	C	BP	X					Transferred from COC2006-00221		
9106-0003-002F	4/24/06	14:39	SE	C	BP	X					Transferred from COC2006-00221		
9106-0003-003F	4/24/06	15:01	SE	C	BP	X					Transferred from COC2006-00221		
9106-0003-004F	4/25/06	08:41	SE	C	BP	X					Transferred from COC2006-00223		
9106-0003-004FS	4/25/06	08:41	SE	C	BP	X					Transferred from COC2006-00223		
9106-0003-005F	4/25/06	09:21	SE	C	BP	X					Transferred from COC2006-00223		
9106-0003-006F	4/25/06	09:46	SE	C	BP	X					Transferred from COC2006-00223		
9106-0003-007F	4/25/06	10:28	SE	C	BP	X					Transferred from COC2006-00223		
9106-0003-008F	4/25/06	11:15	SE	C	BP		X				Transferred from COC2006-00223		
NOTES: PO #: 002332 MSR #: 06-0652 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA Combined samples 9106-0003-003F taken on 4/25/06 @08:19 and 9106-0003-003FB taken on 4/25/06 @ 08:19 in order to have sufficient sample for counting.										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 JAMIE RICARTE			Date/Time 5-4-06 / 13:30			2) Received By C. Demicetto			Date/Time 5/5/06 / 10:15			Bill of Lading # 7920-8920-0240	
3) Relinquished By			Date/Time			4) Received By			Date/Time				
5) Relinquished By			Date/Time			6) Received By			Date/Time				

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00313

~~162334~~ 162335

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

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.

Analyses Requested

Lab Use Only

Comments:

FSSGAM

FSSALL

Sr-90

Media
CodeSample
Type
CodeContainer
Size-
& Type
Code

Comment, Preservation

Lab Sample ID

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- & Type Code	FSSGAM	FSSALL	Sr-90	Comment, Preservation	Lab Sample ID
9106-0003-009F	4/25/06	13:00	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-010F	4/25/06	13:23	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-010FS	4/25/06	13:23	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-012F	4/25/06	15:12	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-013F	4/25/06	14:21	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-014F	4/25/06	14:48	SE	C	BP		X		Transferred from COC 2006-00236	
9106-0003-015F	4/26/06	08:16	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-016F	4/26/06	09:41	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-017F	4/26/06	09:18	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-018F	4/26/06	08:59	SE	C	BP	X			Transferred from COC 2006-00237	

NOTES: PO #: 002332 MSR #: 06-0652 SSWP#NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex
☐ UPS
☐ Hand☐ Other

Bill of Lading #

7920-8920-0261

Internal Container
Temp. _____ Deg. C

Custody Sealed?

Y ☒ N ☐

Custody Seal Intact?

Y ☒ N ☐

1) Relinquished By

JAMES RICHIE

Date/Time

5-1-06 / 1330

2) Received By

C. Derricott

Date/Time

5/5/06 / 1015

3) Relinquished By

Date/Time

4) Received By

Date/Time

Cheryl

162335

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 5/5/06 1015

SDG#: MSR#06-0652

Work Order Number: 162335

Shipping Container ID: 7920 8920 0241 Chain of Custody # 2006-00312

1. Custody Seals on shipping container intact? Yes ☐ No ☒ 2006-00313

2. Custody Seals dated and signed? Yes ☐ No ☒

3. Chain-of-Custody record present? Yes ☒ No ☐

4. Cooler temperature 19°C

5. Vermiculite/packing materials is: Wet ☐ Dry ☐ n/a

6. Number of samples in shipping container: [10] ten / [9] nine

7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:	
<input checked="" type="checkbox"/> tape	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input type="checkbox"/> appropriate sample labels
9. Samples are:	
<input checked="" type="checkbox"/> in good condition	<input checked="" type="checkbox"/> leaking
<input type="checkbox"/> broken	<input type="checkbox"/> have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒

11. Description of anomalies (include sample numbers):

Sample Custodian/Laboratory: C. Derricotte Date: 5/5/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only 162335

Client: <u>Yankel</u>	SDG/ARCOC/Work Order:
Date Received: <u>05/5/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Derricotte</u>	<u>Clyde</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 <u>other describe</u> <u>1900</u> <u>Peanutts</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?				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"/>			
14 Air Bill ,Tracking #'s, & Additional Comments				<u>FedEx #</u> <u>7920 8920 0261</u> <u>" " 0240</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>30 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:				Initials <u>DAJ</u> Date: <u>5/5/06</u>

Chain of Custody Form

No. 2006-00336

Connecticut Yankee Atomic Power Company

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories

2040 Savage Road, Charleston SC. 29407

843 556 8171. Attn. Cheryl Jones

Priority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only

Comments

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
9106-0004-001F	05/3/06	09:37	SE	C	BP		X	X				Transferred from COC 2006-00316	
9106-0004-002F	05/3/06	09:56	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0004-003F	05/3/06	10:28	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0004-004F	05/3/06	10:48	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0004-004FS	05/3/06	10:48	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0004-005F	05/3/06	11:07	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0004-006F	05/3/06	12:46	SE	C	BP	X		X				Transferred from COC 2006-00317	
9106-0004-007F	05/4/06	07:55	SE	C	BP	X		X				Transferred from COC 2006-00320	
9106-0004-017F	05/4/06	09:27	SE	C	BP	X		X				Transferred from COC 2006-00320	

NOTES: PO #: 002332 MSR #: 06-0688 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7919-3895-8881

1) Relinquished By Date/Time

2) Received By Date/Time

C. Dewi Cotto

5/12/06 0920

3) Relinquished By Date/Time

4) Received By Date/Time

Internal Container

Temp: 72 Deg C

Custody Sealed?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Page 18 of 105

Chain of Custody Form

No. 2006-00337

Connecticut Yankee Atomic Power Company

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories

2040 Savage Road, Charleston SC, 29407

843 556 8171. Attn. Cheryl Jones

Priority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90						Comments:

NOTES: PO #: 002332 MSR #: 06-0688 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7919 3875 8892

Internal Container Temp: 77 Deg. C

Custody Sealed? ☒ YES ☐ NOCustody Seal Intact? ☒ YES ☐ NO

1) Relinquished By

Date/Time

2) Received By

Date/Time

3) Relinquished By

Date/Time

4) Received By

Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 5.12.06 09:20

SDG#: MSR#06-0688

Work Order Number: 1628321

Shipping Container ID: 7914 3895 8892 Chain of Custody #: 2006-00337

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 N/A
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: 9
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: Emily Martin Date: 5.12.06 09:20

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 5/12/06 @ 0920

SDG#: MSR #06-0688

Work Order Number: 1628321

Shipping Container ID: 7919 3895 8892
1970 Chain of Custody # 2006-00337

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°C
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): soil was busting out
of container bag

Sample Custodian/Laboratory: C. Demicco Date: 5/12/06
Telephoned to: _____ On _____ By _____

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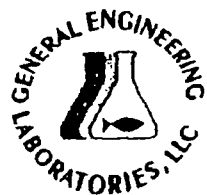
SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>CT Yankee</u>	SDG/ARCOC/Work Order: <u>162832</u>
Date Received: <u>5.12.06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>E. Martin</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		X		Circle Coolant # ice bags blue ice dry ice none other (describe)
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?			X	Circle Applicable: seals broken damaged container <u>leaking container</u> other (describe) <u>SN: 9106-0004-014F</u>
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			X	
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	X			Sample ID's affected:
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?			X	<u>Coc Not Relinquished</u>
14 Air Bill ,Tracking #'s, & Additional Comments				<u>7919 3895 8892</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?		X		*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?	X			Maximum Counts Observed*: <u>< Bkgd.</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Comments: <u>Bkgd = 40 cpm</u> Hazard Class Shipped: <u>N/A</u> UN#: <u>N/A</u>
PM (or PMA) review of Hazard classification:				Initials <u>[Signature]</u> Date: <u>5/12/06</u>



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Vankel</u>	SDG/ARCO/Work Order: <u>162832</u>
Date Received: <u>5/12/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Derricotte</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 <u>none</u> other (describe) <u>17°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>COGs are wet</u>
4 Sample containers intact and sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe) <u>busted bag w/ RSOs cooler 7920 9480 6038 (1)</u>
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: <u>8892</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<u>no COGs are relinquished</u>
14 Air Bill, Tracking #'s, & Additional Comments	<u>FedEx #'s</u> <u>see continuation sheet</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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum Counts Observed*: <u>10000 40 cpm</u>
B PCB Regulated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Comments:
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#:

PM (or PMA) review of Hazard classification: _____ Initials CD Date: 5/12/06

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424

860-267-2556

Chain of Custody Form

No. 2006-00319

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories

2040 Savage Road, Charleston SC. 29407

843 556 8171. Attn. Cheryl Jones

Priority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only

Comments

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
9106-0005-010F	5/02/06	13:16	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-011F	5/02/06	13:39	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-013F	5/02/06	14:35	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-014F	5/02/06	15:04	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-016F	5/02/06	13:59	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-015F	5/03/06	08:03	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-017F	5/03/06	08:13	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-018F	5/03/06	09:09	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-018FS	5/03/06	09:09	SE	C	BP	X		X				Transferred from COC 2006-00316	

NOTES: PO #: 002332 MSR #: 06-0675 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7920 9195 4352

1) Relinquished By

Date/Time

5-8-06 1440

2) Received By

Date/Time

5/9/06 0930

3) Relinquished By

Date/Time

4) Received By

Date/Time

Internal Container

Temp. Deg. C

Custody Sealed?

Y ☐ N ☐

Custody Seal Intact?

Y ☐ N ☐Y ☐ N ☐

Figure 1. Sample Check-in List

Date/Time Received: 5/9/06 0930

SDG#: MSR#06-0675

Work Order Number: 1624851

Shipping Container ID: 7920 9195 4352, 4363 Chain of Custody #: 2006-00318/00319

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°C, 19°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
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 (some bags)
☐ broken ☐ have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: Berle Date: 5/9/06 0930

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>ATMC</u>	SDG/ARCOC/Work Order: <u>162485</u>
Date Received: <u>5/9/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>BHC</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)				<u>BHC 5/9/06</u>
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>Fed 7920 9195 4352 → 19°C</u> <u>Ex 4363 → 18°C</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>80 cpm</u>
B PCB Regulated?				Comments:
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification:

Initials CAJ

Date: 5/9/06

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Chain of Custody Form

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

No. 2006-00332

Project Name: Haddam Neck Decommissioning						Analyses Requested					Lab Use Only				
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones													Comment, Preservation		Lab Sample ID
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- & Type Code										
9106-0006-004F	4/28/06	12:46	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-005F	4/28/06	13:03	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-006F	4/28/06	13:22	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-007F	4/28/06	13:41	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-007FS	4/28/06	13:41	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-012F	5/01/06	13:40	SE	C	BP	X		X				Transferred from COC 2006-00317			
9106-0006-017F	5/01/06	14:03	SE	C	BP	X		X				Transferred from COC 2006-00317			

NOTES: PO #: 002332 MSR #: 06-0687 SSWP#NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

1) Relinquished By	Date/Time	2) Received By	Date/Time
		<i>C. DeWitt</i>	5/12/06 0920
3) Relinquished By	Date/Time	4) Received By	Date/Time

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

Bill of Lading #
 7920-9480-6688

Internal Container Temp: 72° Deg C

Custody Sealed? *YES*

Custody Seal Intact? *YES*

Figure 1. Sample Check-in List

- Date/Time Received: 5/12/06 @ 0920
- SDG#: 1152#06-0687
- Work Order Number: 1628501
- Shipping Container ID: See cont sheet Chain of Custody #: See cont 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 1700
 5. Vermiculite/packing materials is: Wet ☒ Dry ☐
 6. Number of samples in shipping container: See: cont sheet
 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): N/A

Sample Custodian/Laboratory: C. Duricotte Date: 5/12/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

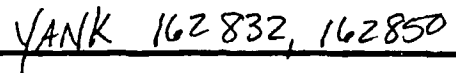
PM use only

Client: <u>Yankel</u>	SDG/ARCOC/Work Order: <u>162832, 162850</u>
Date Received: <u>5/12/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>[Signature]</u>
Received By: <u>C. Derricotte</u>	

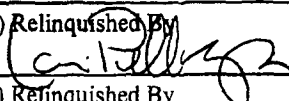
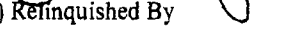
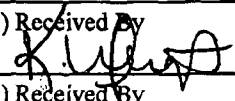
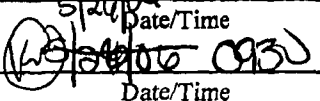
Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice <u>none</u> other (describe) <u>17°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			<u>COCs are wet</u>
4 Sample containers intact and sealed?			<input checked="" type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe) <u>busted bag w/ RSDs</u> <u>cooler 7970 9480 6038 (C)</u>
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH: <u>8.92</u>
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>no COCs are relinquished</u>
14 Air Bill ,Tracking #'s, & Additional Comments	<u>FedEx #'s</u> <u>see continuation sheet</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>100 @ 40 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:	Initials <u>[Signature]</u>	Date: <u>5/12/06</u>
--	-----------------------------	----------------------



<u>Fed Ex Trk #</u>	<u>COC #</u>	<u># of containers</u>
7920 9480 6688	2006-00332	(7) Seven
- - 6611	2006-00331	(6) Six
- - 6655	2006-00330	(6) Six
7919 3895 8881	2006-00336	(9) nine
- - 8892	2006-00337	(9) nine
(this cooler had a busted sample cooler & COC is w/ RSO Emily Martin)		

Connecticut Yankee Atomic Power Company						Chain of Custody Form						No. 2006-00367		
362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556						163741%								
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90	Ni-63	Comments:				
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0008-001F	5/05/06	11:13	SE	C	BP	X		X	X		Transferred from COC # 2006-00324			
9106-0008-003F	5/5/06	13:35	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
9106-0008-004F	5/5/06	13:51	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
9106-0008-005F	5/5/06	14:17	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
9106-0008-006F	5/5/06	14:36	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
9106-0008-006FS	5/5/06	14:36	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
9106-0008-007F	5/5/06	15:03	SE	C	BP		X				Transferred from COC # 2006-00325			
9106-0008-002F	5/5/06	13:10	SE	C	BP	X		X	X		Transferred from COC # 2006-00325			
NOTES: PO #: 002332 MSR #: 06-0743 SSWP#NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA														
1) Relinquished By  Date/Time 5-25-06 09:50											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														2) Received By  Date/Time 5/26/06 09:30 4) Received By  Date/Time
Bill of Lading # R275154 1162														

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

No. 2006-00366

163741%

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90	Ni-63	Comments:				
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
009 9106-0008-008F	5/08/06	08:01	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
010 9106-0008-009F	5/08/06	08:32	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
011 9106-0008-010F	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
012 9106-0008-010FS	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
013 9106-0008-011F	5/08/06	09:30	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
014 9106-0008-012F	5/08/06	09:53	SE	C	BP		X				Transferred from COC # 2006-00327			
015 9106-0008-013F	5/08/06	10:16	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-014F	5/08/06	10:47	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
NOTES: PO #: 002332 MSR #: 06-0743 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>21</u> Deg. C Custody Sealed? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By _____ Date/Time _____			2) Received By <u>C. Ben. 1070</u> Date/Time <u>5/26/06 0930</u>			Bill of Lading # _____								
3) Relinquished By _____ Date/Time _____			4) Received By _____ Date/Time _____											

Figure 1. Sample Check-in List

Date/Time Received: 5/24/06 0930

SDG#: _____

Work Order Number: _____

Shipping Container ID: 79275154 1162 Chain of Custody # 2006-00367

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☐ No ☒
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 19°C
5. Vermiculite/packing materials is: Wet ☐ Dry ☒ NA
6. Number of samples in shipping container: 8
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. L. [Signature] Date: 5/24/06
Telephoned to: _____ On _____ By _____

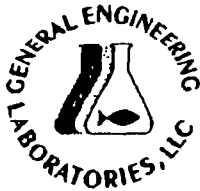


SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Conn. Yankee</u>	SDG/ARCOC/Work Order: <u>1637417</u>
Date Received: <u>5/26/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>[Signature]</u>
Received By: <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>19°C</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>7927 SF54 1162</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? <u>U</u>	/	/		Maximum Counts Observed*: <u>cpm 20</u> Per R50
B PCB Regulated?	/			Comments:
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	/			Hazard Class Shipped: UN#:
PM (or PMA) review of Hazard classification: <u>[Signature]</u> Initials <u>5/26/06</u> Date:				



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankee</u>	SDG/ARCOC/Work Order: <u>163741'1</u>
Date Received: <u>5/26/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>EM</u>
Received By: <u>C. Duricato</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 <u>none</u> other (describe) <u>21°C</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 vials 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"/>		<input checked="" type="checkbox"/>	<u>not relinquished</u>
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7927 5154 1173</u> <u>COC # 2604 - 00364</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"/>	<input checked="" type="checkbox"/>		Maximum Counts Observed*: <u>40 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: <u>EM</u> Initials <u>5/26/06</u> Date:				

1637417

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 5/26/06 @ 0930

SDG#: _____

Work Order Number: _____

Shipping Container ID: 79215K41173 Chain of Custody #: 2006-083640

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 21°
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: (9) eight
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

- | | |
|---|---------------------------------|
| <input checked="" type="checkbox"/> tape | _____ hazard labels |
| <input checked="" type="checkbox"/> 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): 2/1

Sample Custodian/Laboratory: C. Duick Date: 5/26/06

Telephoned to: _____ On _____ By _____

164542-1.

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Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00380

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Ni-63					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID	
9106-0009-016F	5/15/06	13:28	SE	C	BP	X		X				Transferred from COC 2006-00352		
9106-0009-016FS	5/15/06	13:28	SE	C	BP	X		X				Transferred from COC 2006-00352		
9106-0009-017F	5/15/06	14:03	SE	C	BP	X		X				Transferred from COC 2006-00352		
9106-0009-011F	5/15/06	08:05	SE	C	BP		X					Transferred from COC 2006-00351		
9106-0009-013F	5/15/06	08:35	SE	C	BP	X		X				Transferred from COC 2006-00351		
9106-0009-013FS	5/15/06	08:35	SE	C	BP	X		X				Transferred from COC 2006-00351		
9106-0009-014F	5/15/06	08:59	SE	C	BP		X					Transferred from COC 2006-00351		
9106-0009-015F	5/15/06	09:36	SE	C	BP	X		X				Transferred from COC 2006-00351		
NOTES: PO #: 002332 MSR #: 06-0818 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA														
1) Relinquished By James Riccio		Date/Time 6-7-06/11:00		2) Received By [Signature]		Date/Time 6-8-06 9:00		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 # 7921-1915 2869						

164542-1.

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

No. 2006-00381

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Ni-63					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0009-001F	5/11/06	13:22	SE	C	BP	X		X			Transferred from COC 2006-00347			
9106-0009-002F	5/11/06	13:46	SE	C	BP	X		X			Transferred from COC 2006-00347			
9106-0009-003F	5/11/06	14:06	SE	C	BP	X		X			Transferred from COC 2006-00347			
9106-0009-004F	5/11/06	14:30	SE	C	BP	X		X			Transferred from COC 2006-00347			
9106-0009-005F	5/11/06	14:55	SE	C	BP	X		X			Transferred from COC 2006-00347			
9106-0009-007F	5/12/06	07:44	SE	C	BP	X		X			Transferred from COC 2006-00348			
9106-0009-008F	5/12/06	08:16	SE	C	BP	X		X			Transferred from COC 2006-00348			
9106-0009-009F	5/12/06	08:35	SE	C	BP	X		X			Transferred from COC 2006-00348			
9106-0009-010F	5/12/06	09:07	SE	C	BP	X		X			Transferred from COC 2006-00348			
NOTES: PO #: 002332 MSR #: 06- 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 JIMMIE RICHARTE			Date/Time 6-7-06/11:00		2) Received By A. Maly			Date/Time 6/8/06 900						
3) Relinquished By			Date/Time		4) Received By			Date/Time		Bill of Lading # 7921 1915 2858				

Cheryl 1645517

CPM 40

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 6-8-06 900

SDG#: MSR# 06-0819, 0818

Work Order Number:

Shipping Container ID: 7921-1915-2858 Chain of Custody #: 2008-00382
11-11-8186 2006-00380
2008-00381

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 20°C
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	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input type="checkbox"/> appropriate sample labels
9. Samples are:	
<input checked="" type="checkbox"/> in good condition	<input type="checkbox"/> leaking
<input type="checkbox"/> broken	<input type="checkbox"/> have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒
11. Description of anomalies (include sample numbers):

Sample Custodian/Laboratory: A. Maly Date: 6-8-06 900

Telephoned to: On By

No. 2006-00349

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 860-267-2556 Ext. 3024							FSSGAM	FSSALL	Ni-63	Comments:									
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones																			
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.																			
Sample Designation			Date	Time	Media Code	Sample Type Code	Container Size & Type Code												
9106-0010-001F			5/04/06	10:49	SE	C	BP	X		X			Transferred from COC 2006-00321	Lab Sample ID					
9106-0010-002F			5/04/06	11:12	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-004F			5/04/06	12:48	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-006F			5/04/06	13:34	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-007F			5/04/06	13:21	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-009F			5/04/06	14:01	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-010F			5/04/06	14:21	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-012F			5/04/06	14:44	SE	C	BP	X		X			Transferred from COC 2006-00321						
9106-0010-013F			5/04/06	15:06	SE	C	BP		X				Transferred from COC 2006-00321						
NOTES: PO #: 002332 MSR #: 06- 0707 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 JAMES REARDE					Date/Time 5-16-06 / 1150					2) Received By A. Moley					Date/Time 5/17/06 945				
3) Relinquished By					Date/Time					4) Received By					Date/Time				
Bill of Lading # 12 2-21																			

Figure 1. Sample Check-in List

Date/Time Received: 945 5/17/06

SDG#: MARK 06-0707

Work Order Number: 1631051

Shipping Container ID: 7904 3113 8541 Chain of Custody #: 2006-60349

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°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

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

9. Samples are:

☒ in good condition ☒ ^{AM} leaking
☐ broken ☐ have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒
11. Description of anomalies (include sample numbers): _____

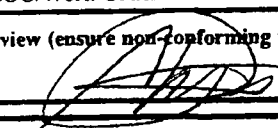
Sample Custodian/Laboratory: AMaly Date: 5-17-06
Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

CHERYL

PM use only

Client: <u>CONN. YANKEE</u>		SDG/ARCOC/Work Order:	
Date Received: <u>5-17-06</u>		PM(A) Review (ensure non-conforming items are resolved prior to signing):	
Received By: <u>ALM</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 <u>none</u> other (describe)
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"/>			
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7904 3113 8541</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"/>	<input checked="" type="checkbox"/>		Maximum Counts Observed*: <u>CPM 60</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:	Initials <u>CD</u>	Date: <u>5/17/06</u>
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List of current GEL Certifications as of 15 August 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)
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	N/A
Virginia	00151
Washington	C223

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 168404**

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:	555696
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153129	Method Blank (MB)
1201153130	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153131	168340011(9304-01-005C) Matrix Spike (MS)
1201153132	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: 168340011 (9304-01-005C).

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 168404003 (9106-0003-004F) was recounted due to high MDA.

Miscellaneous Information:

NCR Documentation

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

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Alphaspec 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:	557837
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404009	9106-0006-005F
168404010	9106-0008-006F
1201158316	Method Blank (MB)
1201158317	168404009(9106-0006-005F) Sample Duplicate (DUP)
1201158318	168404009(9106-0006-005F) Matrix Spike (MS)
1201158319	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: 168404009 (9106-0006-005F).

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:	555697
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153133	Method Blank (MB)
1201153134	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153135	168340011(9304-01-005C) Matrix Spike (MS)
1201153136	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: 168340011 (9304-01-005C).

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:	555698
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153137	Method Blank (MB)
1201153138	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153139	168340011(9304-01-005C) Matrix Spike (MS)
1201153140	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: 168340011 (9304-01-005C).

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:	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:	556350
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404003	9106-0003-004F
168404004	9106-0003-015F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201154644	Method Blank (MB)
1201154645	168404003(9106-0003-004F) Sample Duplicate (DUP)
1201154646	168404003(9106-0003-004F) Matrix Spike (MS)
1201154647	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: 168404003 (9106-0003-004F).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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 1201154644 (MB), 1201154645 (9106-0003-004F), 1201154646 (9106-0003-004F), 1201154647 (LCS), 168404003 (9106-0003-004F), 168404004 (9106-0003-015F), 168404012 (9106-0009-002F), 168404013 (9106-0009-017F), 168404014 (9106-0010-001F) and 168404015 (9106-0010-012F) were dried and reweighed due to low matrix spike/laboratory control sample recovery.

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:	554580

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150561	Method Blank (MB)
1201150562	168340012(9304-02-003C) Sample Duplicate (DUP)
1201150563	168340012(9304-02-003C) Matrix Spike (MS)
1201150564	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: 168340012 (9304-02-003C).

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:	555722
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153222	Method Blank (MB)
1201153223	168340012(9304-02-003C) Sample Duplicate (DUP)
1201153224	168340012(9304-02-003C) Matrix Spike (MS)
1201153225	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: 168340012 (9304-02-003C).

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:	555723
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
1201153226	Method Blank (MB)
1201153227	168340012(9304-02-003C) Sample Duplicate (DUP)
1201153228	168340012(9304-02-003C) Matrix Spike (MS)
1201153229	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: 168340012 (9304-02-003C).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:**NCR Documentation**

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

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	LSC, Tritium Dist, Solid-HTD2,ALL FSS
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	554582

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150569	Method Blank (MB)
1201150570	168340011(9304-01-005C) Sample Duplicate (DUP)
1201150571	168340011(9304-01-005C) Matrix Spike (MS)
1201150572	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# 12.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

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

Sample Geometry

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

Quality Control (QC) Information:**Blank Information**

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

Designated QC

The following sample was used for QC: 168340011 (9304-01-005C).

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 168404010 (9106-0008-006F) was recounted due to high MDA.

Miscellaneous Information:**NCR Documentation**

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

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: 554583

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150573	Method Blank (MB)
1201150574	168404003(9106-0003-004F) Sample Duplicate (DUP)
1201150575	168404003(9106-0003-004F) Matrix Spike (MS)
1201150576	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: 168404003 (9106-0003-004F).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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:

Kath Bellatt 8/22/66

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: 168404 GEL Work Order: 168404

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

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

Report Date: August 21, 2006

Client Sample ID:	9106-0002-007F	Project:	YANK01204
Sample ID:	168404001	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	18-MAY-06		
Receive Date:	02-JUN-06		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0762	+/-0.102	0.00	+/-0.102	0.0956	pCi/g		BXL1	08/11/06	1336	555696	1
Curium-242	U	0.00	+/-0.0995	0.00	+/-0.0995	0.138	pCi/g						
Curium-243/244	U	-0.00853	+/-0.0717	0.0405	+/-0.0717	0.177	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.199	+/-0.228	0.181	+/-0.229	0.444	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0341	+/-0.129	0.120	+/-0.129	0.323	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	10.0	+/-6.64	5.08	+/-6.72	10.7	pCi/g		BXL1	08/16/06	1220	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	4.17	+/-6.67	5.28	+/-6.67	11.4	pCi/g		DFA1	08/09/06	1128	554582	4
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.0813	+/-0.0797	0.0634	+/-0.0797	0.132	pCi/g		ATH2	08/09/06	0324	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	9.90	+/-48.1	32.0	+/-48.1	65.9	pCi/g		MXP1	08/12/06	1633	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.02	+/-6.39	5.18	+/-6.40	10.6	pCi/g		MXP1	08/11/06	0738	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.139	+/-0.213	0.173	+/-0.213	0.360	pCi/g		EGD1	08/11/06	2027	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified

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

Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0002-007F
Sample ID: 168404001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA EERF C-01 Modified												
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	80	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	100	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	98	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	75	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	74	(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

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: August 21, 2006

Client Sample ID: 9106-0002-011F
Sample ID: 168404002
Matrix: SE
Collect Date: 19-MAY-06
Receive Date: 02-JUN-06
Collector: Client
Moisture: 17.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.120	+/-0.154	0.0683	+/-0.155	0.251	pCi/g		BXL1	08/11/06	1336	555696	1
Curium-242	U	-0.0146	+/-0.122	0.0692	+/-0.123	0.303	pCi/g						
Curium-243/244	U	-0.0103	+/-0.0861	0.0487	+/-0.0862	0.213	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0121	+/-0.125	0.127	+/-0.125	0.344	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0254	+/-0.0675	0.0381	+/-0.0675	0.167	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.72	+/-7.02	5.56	+/-7.05	11.7	pCi/g		BXL1	08/16/06	1237	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	-0.521	+/-7.03	5.94	+/-7.03	12.8	pCi/g		DFA1	08/09/06	1143	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.023	+/-0.0828	0.0685	+/-0.0828	0.143	pCi/g		ATH2	08/09/06	0426	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	3.93	+/-47.7	31.9	+/-47.7	65.7	pCi/g		MXP1	08/12/06	1649	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.52	+/-5.81	4.68	+/-5.81	9.60	pCi/g		MXP1	08/11/06	0825	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.173	+/-0.203	0.164	+/-0.203	0.341	pCi/g		EGD1	08/11/06	2043	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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

Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0002-011F
Sample ID: 168404002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	76	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	100	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	88	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	79	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003
Matrix: SE
Collect Date: 25-APR-06
Receive Date: 05-MAY-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	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.027	+/-0.117	0.153	+/-0.117	0.488	pCi/g		BXL1	08/13/06	0819	555696	1
Curium-242	U	0.112	+/-0.315	0.245	+/-0.315	0.781	pCi/g						
Curium-243/244	U	0.0217	+/-0.206	0.205	+/-0.206	0.594	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.061	+/-0.189	0.176	+/-0.189	0.449	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0551	+/-0.103	0.0584	+/-0.103	0.215	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	8.31	+/-5.73	4.40	+/-5.78	9.25	pCi/g		BXL1	08/16/06	1253	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00343	+/-0.0203	0.0172	+/-0.0203	0.036	pCi/g		BXF1	08/14/06	0834	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.603	+/-8.25	6.87	+/-8.25	14.8	pCi/g		DFA1	08/09/06	1159	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0937	+/-0.0813	0.0642	+/-0.0813	0.134	pCi/g		ATH2	08/09/06	0529	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	7.68	+/-51.2	34.2	+/-51.2	70.4	pCi/g		MXP1	08/12/06	1706	555722	7
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	5.74	+/-7.12	6.58	+/-7.13	13.6	pCi/g		MXP1	08/11/06	0912	555723	8
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.0643	+/-0.198	0.169	+/-0.198	0.351	pCi/g		EGD1	08/11/06	2059	554580	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
3		DOE EML HASL-300, Pu-11-RC Modified											
4		EPA 905.0 Modified											
5		EPA 906.0 Modified											
6		EPA EERF C-01 Modified											
7		DOE RESL Fe-1, Modified											
8		DOE RESL Ni-1, Modified											
9		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	42	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	92	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	113	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	59	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	71	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	83	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	76	(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

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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: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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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: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004
Matrix: SE
Collect Date: 25-APR-06
Receive Date: 05-MAY-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	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0456	+/-0.155	0.139	+/-0.155	0.387	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	0.113	+/-0.181	0.0733	+/-0.182	0.321	pCi/g						
Curium-243/244	U	0.180	+/-0.239	0.181	+/-0.240	0.472	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0196	+/-0.121	0.118	+/-0.121	0.324	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0326	+/-0.0639	0.00	+/-0.064	0.0884	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.63	+/-6.19	4.86	+/-6.22	10.2	pCi/g		BXL1	08/16/06	1309	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00477	+/-0.0216	0.0179	+/-0.0216	0.0375	pCi/g		BXF1	08/14/06	0834	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	1.03	+/-7.06	5.85	+/-7.06	12.6	pCi/g		DFA1	08/09/06	1215	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.156	+/-0.0912	0.0699	+/-0.0913	0.146	pCi/g		ATH2	08/09/06	0632	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-9.99	+/-42.7	28.7	+/-42.7	59.2	pCi/g		MXP1	08/12/06	1722	555722	7
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	0.939	+/-10.1	10.3	+/-10.1	21.6	pCi/g		MXP1	08/11/06	1001	555723	8
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.237	+/-0.213	0.170	+/-0.213	0.353	pCi/g		EGD1	08/11/06	2115	554580	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified

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

Report Date: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
3		DOE EML HASL-300, Pu-11-RC Modified											
4		EPA 905.0 Modified											
5		EPA 906.0 Modified											
6		EPA EERF C-01 Modified											
7		DOE RESL Fe-1, Modified											
8		DOE RESL Ni-1, Modified											
9		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	78	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	94	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	101	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	58	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	75	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	62	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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

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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: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004

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

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0004-005F
Sample ID: 168404005
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 15.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.036	+/-0.123	0.157	+/-0.123	0.437	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0169	+/-0.033	0.080	+/-0.0331	0.350	pCi/g						
Curium-243/244	U	-0.0129	+/-0.227	0.247	+/-0.227	0.619	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0217	+/-0.163	0.181	+/-0.163	0.444	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	-0.0708	+/-0.0791	0.128	+/-0.0795	0.337	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	9.52	+/-6.00	4.57	+/-6.07	9.61	pCi/g		BXL1	08/16/06	1326	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.854	+/-5.88	4.87	+/-5.88	10.5	pCi/g		DFA1	08/09/06	1231	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.347	+/-0.097	0.0674	+/-0.0972	0.141	pCi/g		ATH2	08/09/06	0734	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-1.57	+/-46.0	30.7	+/-46.0	63.2	pCi/g		MXP1	08/12/06	1738	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	6.39	+/-7.62	7.40	+/-7.62	15.5	pCi/g		MXP1	08/11/06	1017	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0198	+/-0.187	0.156	+/-0.187	0.324	pCi/g		EGD1	08/11/06	2131	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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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: August 21, 2006

Client Sample ID: 9106-0004-005F
Sample ID: 168404005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	65	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	95	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	105	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	78	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	80	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0004-015F
Sample ID: 168404006
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 26.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0823	+/-0.203	0.178	+/-0.203	0.469	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0154	+/-0.0301	0.0729	+/-0.0302	0.319	pCi/g						
Curium-243/244	U	-0.0994	+/-0.251	0.300	+/-0.251	0.713	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0466	+/-0.213	0.210	+/-0.213	0.521	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	-0.142	+/-0.108	0.191	+/-0.109	0.483	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.64	+/-6.53	5.16	+/-6.57	10.8	pCi/g		BXL1	08/16/06	1342	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	-2.9	+/-7.59	6.60	+/-7.59	14.2	pCi/g		DFA1	08/09/06	1247	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0352	+/-0.0868	0.0713	+/-0.0868	0.149	pCi/g		ATH2	08/09/06	0837	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	1.88	+/-46.8	31.3	+/-46.8	64.4	pCi/g		MXP1	08/12/06	1754	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	3.88	+/-7.46	7.40	+/-7.46	15.5	pCi/g		MXP1	08/11/06	1033	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0894	+/-0.198	0.163	+/-0.198	0.338	pCi/g		EGD1	08/11/06	2147	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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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: August 21, 2006

Client Sample ID: 9106-0004-015F
Sample ID: 168404006

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	72	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	94	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	73	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	78	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 168404007
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 56.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.128	+/-0.0939	0.142	+/-0.0942	0.385	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0115	+/-0.128	0.147	+/-0.128	0.450	pCi/g						
Curium-243/244	U	-0.0333	+/-0.122	0.149	+/-0.122	0.401	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0548	+/-0.169	0.158	+/-0.170	0.403	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0195	+/-0.121	0.117	+/-0.121	0.322	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	10.4	+/-6.89	5.27	+/-6.97	11.1	pCi/g		BXL1	08/16/06	1358	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.00	+/-6.86	5.76	+/-6.86	12.4	pCi/g		DFA1	08/09/06	1303	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0636	+/-0.0801	0.0644	+/-0.0801	0.135	pCi/g		ATH2	08/09/06	1017	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	36.1	+/-44.1	28.7	+/-44.1	59.0	pCi/g		MXP1	08/12/06	1811	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.26	+/-10.2	10.0	+/-10.2	20.9	pCi/g		MXP1	08/11/06	1049	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.05	+/-0.199	0.169	+/-0.199	0.351	pCi/g		EGD1	08/11/06	2203	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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

Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 168404007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
6		DOE RESL Fe-1, Modified										
7		DOE RESL Ni-1, Modified										
8		DOE EML HASL-300, Tc-02-RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	85	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	92	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	81	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	64	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	77	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 168404008
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 32.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.00591	+/-0.219	0.231	+/-0.219	0.608	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.04	+/-0.0554	0.134	+/-0.0557	0.494	pCi/g						
Curium-243/244	U	0.0634	+/-0.261	0.249	+/-0.261	0.646	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0694	+/-0.106	0.160	+/-0.106	0.434	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	-0.0287	+/-0.098	0.127	+/-0.0981	0.369	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	4.68	+/-8.01	6.48	+/-8.02	13.6	pCi/g		BXL1	08/16/06	1415	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	6.02	+/-6.38	4.90	+/-6.38	10.6	pCi/g		DFA1	08/09/06	1319	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0892	+/-0.0827	0.0655	+/-0.0827	0.137	pCi/g		ATH2	08/09/06	1424	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	19.8	+/-46.3	30.6	+/-46.3	62.9	pCi/g		MXP1	08/12/06	1827	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	5.41	+/-7.91	7.77	+/-7.91	16.2	pCi/g		MXP1	08/11/06	1106	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.134	+/-0.192	0.167	+/-0.192	0.346	pCi/g		EGD1	08/11/06	2218	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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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: August 21, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 168404008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	50	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	61	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	76	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0006-005F
Sample ID: 168404009
Matrix: SE
Collect Date: 28-APR-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 16.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.0851	+/-0.136	0.106	+/-0.136	0.390	pCi/g		BXL1	08/16/06	0949	557837	1
Curium-242	U	-0.0253	+/-0.0495	0.120	+/-0.0496	0.525	pCi/g						
Curium-243/244	U	-0.0479	+/-0.0542	0.131	+/-0.0545	0.443	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0183	+/-0.113	0.110	+/-0.113	0.303	pCi/g		BXL1	08/11/06	1633	555697	3
Plutonium-239/240	U	0.00122	+/-0.0662	0.0694	+/-0.0662	0.221	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	4.43	+/-5.83	4.67	+/-5.85	9.82	pCi/g		BXL1	08/16/06	1431	555698	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	-2.02	+/-6.67	5.76	+/-6.67	12.4	pCi/g		DFA1	08/09/06	1335	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.142	+/-0.0798	0.061	+/-0.0799	0.127	pCi/g		ATH2	08/09/06	1719	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	12.6	+/-47.6	31.7	+/-47.6	65.3	pCi/g		MXP1	08/12/06	1843	555722	7
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.70	+/-9.56	9.31	+/-9.56	19.5	pCi/g		MXP1	08/11/06	1122	555723	8
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.00659	+/-0.185	0.156	+/-0.185	0.323	pCi/g		EGD1	08/11/06	2234	554580	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EPA 906.0 Modified

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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: August 21, 2006

Client Sample ID: 9106-0006-005F
Sample ID: 168404009

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE RESL Ni-1, Modified												
9	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	76	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	93	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	105	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	64	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	81	(15%-125%)

Notes:

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- * A quality control analyte recovery is outside of specified acceptance criteria
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B Target analyte was detected in the associated blank
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
 - UI Gamma Spectroscopy—Uncertain identification
 - X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
 - Y QC Samples were not spiked with this compound
 - ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
 - h Preparation or preservation holding time was exceeded
- 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: August 21, 2006

Client Sample ID: 9106-0008-006F
Sample ID: 168404010
Matrix: SE
Collect Date: 05-MAY-06
Receive Date: 26-MAY-06
Collector: Client
Moisture: 34.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.129	+/-0.195	0.0758	+/-0.196	0.332	pCi/g		BXL1	08/16/06	0949	557837	1
Curium-242	U	0.103	+/-0.202	0.00	+/-0.203	0.280	pCi/g						
Curium-243/244	U	-0.0161	+/-0.0316	0.0766	+/-0.0317	0.335	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0276	+/-0.0711	0.0967	+/-0.0712	0.275	pCi/g		BXL1	08/11/06	1633	555697	3
Plutonium-239/240	U	0.00359	+/-0.113	0.118	+/-0.113	0.317	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		14.9	+/-6.37	4.64	+/-6.51	9.75	pCi/g		BXL1	08/16/06	1447	555698	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.00	+/-6.06	5.09	+/-6.06	10.7	pCi/g		DFA1	08/10/06	2150	554582	5
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.107	+/-0.0846	0.0664	+/-0.0846	0.139	pCi/g		ATH2	08/09/06	1822	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	15.1	+/-41.4	27.5	+/-41.4	56.6	pCi/g		MXP1	08/12/06	1900	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.258	+/-0.225	0.179	+/-0.225	0.373	pCi/g		EGD1	08/11/06	2251	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EPA 906.0 Modified
6	EPA EERF C-01 Modified
7	DOE RESL Fe-1, Modified

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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: August 21, 2006

Client Sample ID: 9106-0008-006F
Sample ID: 168404010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
8	DOE EML HASL-300, Tc-02-RC Modified												
Surrogate/Tracer recovery	Test		Recovery%		Acceptable Limits								
Americium-243	Alphaspec Am241, Cm, Solid ALL		77		(15%-125%)								
Plutonium-242	Alphaspec Pu, Solid-ALL FSS		94		(15%-125%)								
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS		103		(25%-125%)								
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS		72		(15%-125%)								
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS		71		(15%-125%)								

Notes:

The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
 - < Result is less than value reported
 - > Result is greater than value reported
 - A The TIC is a suspected aldol-condensation product
 - B Target analyte was detected in the associated blank
 - BD Results are either below the MDC or tracer recovery is low
 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - R Sample results are rejected
 - 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: August 21, 2006

Client Sample ID: 9106-0008-008F
Sample ID: 168404011
Matrix: SE
Collect Date: 08-MAY-06
Receive Date: 26-MAY-06
Collector: Client
Moisture: 35.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0969	+/-0.192	0.152	+/-0.193	0.426	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	-0.0482	+/-0.142	0.132	+/-0.142	0.446	pCi/g						
Curium-243/244	U	-0.0576	+/-0.202	0.240	+/-0.203	0.603	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0397	+/-0.096	0.125	+/-0.096	0.328	pCi/g	BXL1	08/11/06	1633	555697	2	
Plutonium-239/240	U	-0.0315	+/-0.114	0.137	+/-0.114	0.353	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		11.5	+/-6.72	5.08	+/-6.80	10.7	pCi/g	BXL1	08/16/06	1504	555698	3	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.00	+/-5.92	4.97	+/-5.92	10.7	pCi/g	DFA1	08/09/06	1407	554582	4	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	-0.0238	+/-0.0745	0.0636	+/-0.0745	0.133	pCi/g	ATH2	08/09/06	1924	554583	5	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-10.7	+/-40.9	27.5	+/-40.9	56.8	pCi/g	MXPI	08/12/06	1916	555722	6	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0956	+/-0.211	0.174	+/-0.211	0.361	pCi/g	EGD1	08/11/06	2307	554580	7	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified
6	DOE RESL Fe-1, Modified

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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: August 21, 2006

Client Sample ID: 9106-0008-008F
Sample ID: 168404011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
7		DOE EML HASL-300, Tc-02-RC Modified											
Surrogate/Tracer recovery	Test	Recovery%		Acceptable Limits									
Americium-243	Alphaspec Am241, Cm, Solid ALL	65		(15%-125%)									
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	98		(15%-125%)									
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	96		(25%-125%)									
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	76		(15%-125%)									
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	74		(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: August 21, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 168404012
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 33%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.00144	+/-0.155	0.166	+/-0.155	0.458	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	0.0192	+/-0.145	0.135	+/-0.145	0.455	pCi/g						
Curium-243/244	U	0.013	+/-0.268	0.281	+/-0.268	0.687	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00587	+/-0.0493	0.0279	+/-0.0494	0.122	pCi/g		BXL1	08/11/06	1632	555697	2
Plutonium-239/240	U	0.0186	+/-0.0492	0.0278	+/-0.0493	0.122	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.6	+/-6.90	5.13	+/-7.01	10.8	pCi/g		BXL1	08/16/06	1520	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0151	+/-0.0146	0.0114	+/-0.0146	0.0242	pCi/g		BXF1	08/14/06	0834	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	4.12	+/-8.36	6.70	+/-8.36	14.5	pCi/g		DFA1	08/09/06	1422	554582	5
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.046	+/-0.0755	0.0613	+/-0.0755	0.128	pCi/g		ATH2	08/09/06	2027	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	12.9	+/-40.6	26.8	+/-40.6	55.2	pCi/g		MXP1	08/12/06	1932	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.078	+/-0.203	0.168	+/-0.203	0.348	pCi/g		EGD1	08/11/06	2323	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 168404012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA 906.0 Modified												
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	61	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	98	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	94	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	69	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	81	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(15%-125%)

Notes:

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 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - 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: August 21, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 168404013
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 28.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0755	+/-0.242	0.230	+/-0.243	0.574	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	0.0957	+/-0.220	0.171	+/-0.220	0.509	pCi/g						
Curium-243/244	U	-0.073	+/-0.214	0.256	+/-0.214	0.627	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00629	+/-0.0529	0.0299	+/-0.0529	0.131	pCi/g		BXL1	08/11/06	1632	555697	2
Plutonium-239/240	U	0.0262	+/-0.0513	0.00	+/-0.0514	0.0709	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.3	+/-6.66	4.95	+/-6.77	10.4	pCi/g		BXL1	08/16/06	1536	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0205	+/-0.0151	0.0116	+/-0.0151	0.0246	pCi/g		BXF1	08/14/06	0833	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.583	+/-7.98	6.65	+/-7.98	14.4	pCi/g		DFA1	08/09/06	1438	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0271	+/-0.0759	0.0625	+/-0.0759	0.131	pCi/g		ATH2	08/09/06	2129	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-61.9	+/-150	102	+/-150	210	pCi/g		MXP1	08/12/06	1949	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0628	+/-0.200	0.165	+/-0.200	0.343	pCi/g		EGD1	08/11/06	2338	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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Certificate of Analysis

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

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

Report Date: August 21, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 168404013

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
5	EPA 906.0 Modified											
6	EPA EERF C-01 Modified											
7	DOE RESL Fe-1, Modified											
8	DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	64	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	96	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	72	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	73	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	79	(15%-125%)

Notes:

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 - 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: August 21, 2006

Client Sample ID: 9106-0010-001F
Sample ID: 168404014
Matrix: SE
Collect Date: 04-MAY-06
Receive Date: 17-MAY-06
Collector: Client
Moisture: 27.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.00677	+/-0.227	0.238	+/-0.227	0.628	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	0.0854	+/-0.167	0.00	+/-0.168	0.231	pCi/g						
Curium-243/244	U	0.0361	+/-0.242	0.241	+/-0.242	0.634	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.173	+/-0.181	0.143	+/-0.182	0.331	pCi/g		BXL1	08/11/06	2250	555697	2
Plutonium-239/240	U	-0.0342	+/-0.0865	0.0951	+/-0.0866	0.235	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.0	+/-6.44	4.78	+/-6.54	10.0	pCi/g		BXL1	08/16/06	1553	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.0128	+/-0.0141	0.0125	+/-0.0141	0.0262	pCi/g		BXF1	08/14/06	0833	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.548	+/-7.50	6.25	+/-7.50	13.5	pCi/g		DFA1	08/09/06	1454	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0555	+/-0.0809	0.0655	+/-0.0809	0.137	pCi/g		ATH2	08/09/06	2232	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-18.1	+/-47.6	32.3	+/-47.6	66.6	pCi/g		MXP1	08/12/06	2005	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.134	+/-0.205	0.167	+/-0.205	0.347	pCi/g		EGD1	08/11/06	2354	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0010-001F
Sample ID: 168404014

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA 906.0 Modified												
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	50	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	99	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	70	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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: August 21, 2006

Client Sample ID: 9106-0010-012F
Sample ID: 168404015
Matrix: SE
Collect Date: 04-MAY-06
Receive Date: 17-MAY-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	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.110	+/-0.184	0.140	+/-0.184	0.386	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0547	+/-0.141	0.192	+/-0.141	0.544	pCi/g						
Curium-243/244	U	-0.126	+/-0.184	0.245	+/-0.185	0.597	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00157	+/-0.126	0.122	+/-0.126	0.291	pCi/g		BXL1	08/11/06	2250	555697	2
Plutonium-239/240	U	0.0867	+/-0.0869	0.0406	+/-0.0872	0.128	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	8.31	+/-6.16	4.77	+/-6.21	10.0	pCi/g		BXL1	08/16/06	1609	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00771	+/-0.0144	0.0124	+/-0.0144	0.0263	pCi/g		BXF1	08/14/06	0833	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	0.896	+/-6.17	5.11	+/-6.17	11.0	pCi/g		DFA1	08/09/06	1510	554582	5
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.0162	+/-0.0763	0.0633	+/-0.0763	0.132	pCi/g		ATH2	08/09/06	2334	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	23.3	+/-49.3	32.5	+/-49.3	67.0	pCi/g		MXP1	08/12/06	2021	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0577	+/-0.206	0.171	+/-0.206	0.354	pCi/g		EGD1	08/12/06	0010	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0010-012F
Sample ID: 168404015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA 906.0 Modified												
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	81	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	99	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	68	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	74	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(15%-125%)

Notes:

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 - C Analyte has been confirmed by GC/MS analysis
 - D Results are reported from a diluted aliquot of the sample
 - H Analytical holding time was exceeded
 - J Value is estimated
 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
 - 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

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Report Date: August 21, 2006
Page 1 of 6

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 168404

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch 555696											
QC1201153130 168340011 DUP											
Americium-241		U	-0.000522	U	0.0578	pCi/g	204	(0% - 100%)	BXL1	08/11/06	14:34
		Uncert:	+/-0.0385		+/-0.278						
		TPU:	+/-0.0385		+/-0.279						
Curium-242		U	0.00	U	-0.0405	pCi/g	200	(0% - 100%)			
		Uncert:	+/-0.0756		+/-0.0562						
		TPU:	+/-0.0756		+/-0.0565						
Curium-243/244		U	-0.0177	U	-0.0517	pCi/g	98	(0% - 100%)			
		Uncert:	+/-0.0764		+/-0.257						
		TPU:	+/-0.0765		+/-0.257						
QC1201153132 LCS											
Americium-241			12.8		12.8	pCi/g		100 (75%-125%)			
		Uncert:			+/-1.84						
		TPU:			+/-2.70						
Curium-242				U	-0.0328	pCi/g					
		Uncert:			+/-0.0454						
		TPU:			+/-0.0457						
Curium-243/244			15.5		14.3	pCi/g		92 (75%-125%)			
		Uncert:			+/-1.94						
		TPU:			+/-2.92						
QC1201153129 MB											
Americium-241				U	0.0471	pCi/g					
		Uncert:			+/-0.157						
		TPU:			+/-0.157						
Curium-242				U	-0.0469	pCi/g					
		Uncert:			+/-0.0459						
		TPU:			+/-0.0464						
Curium-243/244				U	-0.00385	pCi/g					
		Uncert:			+/-0.210						
		TPU:			+/-0.210						
QC1201153131 168340011 MS											
Americium-241		U	-0.000522		12.0	pCi/g		91 (75%-125%)			
		Uncert:	+/-0.0385		+/-1.38						
		TPU:	+/-0.0385		+/-2.08						
Curium-242		U	0.00	U	0.0427	pCi/g					
		Uncert:	+/-0.0756		+/-0.0837						
		TPU:	+/-0.0756		+/-0.0839						
Curium-243/244		U	-0.0177		15.9	pCi/g		99 (75%-125%)			
		Uncert:	+/-0.0764		+/-1.58						
		TPU:	+/-0.0765		+/-2.61						
Batch 555697											
QC1201153134 168340011 DUP											
Plutonium-238		U	-0.0155	U	0.0237	pCi/g	956	(0% - 100%)	BXL1	08/11/06	22:51

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QC Summary

Workorder: 168404

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	555697										
Plutonium-239/240		Uncert: +/-0.0215 TPU: +/-0.0216 U 0.0414	U	+/-0.0465 +/-0.0466 -0.0489	pCi/g	2410		(0% - 100%)			
		Uncert: +/-0.0934 TPU: +/-0.0935		+/-0.124 +/-0.124							
QC1201153136 LCS Plutonium-238			U	0.155	pCi/g			(75%-125%)			
		Uncert: +/-0.141 TPU: +/-0.142									
Plutonium-239/240	11.8			11.5	pCi/g		98	(75%-125%)			
		Uncert: +/-0.856 TPU: +/-1.32									
QC1201153133 MB Plutonium-238			U	0.0552	pCi/g					08/11/06	22:50
		Uncert: +/-0.186 TPU: +/-0.186									
Plutonium-239/240			U	-0.0978	pCi/g						
		Uncert: +/-0.0892 TPU: +/-0.0899									
QC1201153135 168340011 MS Plutonium-238		U -0.0155	U	0.0539	pCi/g			(75%-125%)		08/11/06	22:51
		Uncert: +/-0.0215 TPU: +/-0.0216		+/-0.112 +/-0.112							
Plutonium-239/240	12.3	U 0.0414		10.3	pCi/g		84	(75%-125%)			
		Uncert: +/-0.0934 TPU: +/-0.0935		+/-0.796 +/-1.19							
Batch	555698										
QC1201153138 168340011 DUP Plutonium-241		U 7.28	U	10.1	pCi/g	0		(0% - 100%)	BXL1	08/16/06	16:41
		Uncert: +/-6.30 TPU: +/-6.35		+/-6.39 +/-6.46							
QC1201153140 LCS Plutonium-241	137			145	pCi/g		106	(75%-125%)		08/16/06	17:14
		Uncert: +/-12.5 TPU: +/-19.9									
QC1201153137 MB Plutonium-241			U	8.57	pCi/g					08/16/06	16:25
		Uncert: +/-6.93 TPU: +/-6.98									
QC1201153139 168340011 MS Plutonium-241	138	U 7.28		142	pCi/g		103	(75%-125%)		08/16/06	16:58
		Uncert: +/-6.30 TPU: +/-6.35		+/-12.4 +/-19.7							
Batch	557837										
QC1201158317 168404009 DUP Americium-241		U -0.0851	U	0.167	pCi/g	616		(0% - 100%)	BXL1	08/16/06	09:49
		Uncert: +/-0.136 TPU: +/-0.136		+/-0.220 +/-0.221							
Curium-242		U -0.0253	U	0.241	pCi/g	247		(0% - 100%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	557837										
Curium-243/244		Uncert:	+/-0.0495	+/-0.334							
		TPU:	+/-0.0496	+/-0.335							
		U	-0.0479	0.0761	pCi/g	879		(0% - 100%)			
		Uncert:	+/-0.0542	+/-0.149							
		TPU:	+/-0.0545	+/-0.149							
QC1201158319 LCS Americium-241	24.5			25.4	pCi/g		104	(75%-125%)			
		Uncert:		+/-2.47							
		TPU:		+/-4.16							
Curium-242			U	0.0477	pCi/g						
		Uncert:		+/-0.127							
		TPU:		+/-0.127							
Curium-243/244	29.7			27.0	pCi/g		91	(75%-125%)			
		Uncert:		+/-2.54							
		TPU:		+/-4.38							
QC1201158316 MB Americium-241			U	0.234	pCi/g						
		Uncert:		+/-0.275							
		TPU:		+/-0.277							
Curium-242			U	0.00	pCi/g						
		Uncert:		+/-0.152							
		TPU:		+/-0.152							
Curium-243/244			U	-0.0551	pCi/g						
		Uncert:		+/-0.0624							
		TPU:		+/-0.0628							
QC1201158318 168404009 MS Americium-241	26.4	U	-0.0851	29.1	pCi/g		110	(75%-125%)			
		Uncert:	+/-0.136	+/-2.97							
		TPU:	+/-0.136	+/-5.01							
Curium-242		U	-0.0253	0.126	pCi/g						
		Uncert:	+/-0.0495	+/-0.247							
		TPU:	+/-0.0496	+/-0.248							
Curium-243/244	32.4	U	-0.0479	31.7	pCi/g		98	(75%-125%)			
		Uncert:	+/-0.0542	+/-3.12							
		TPU:	+/-0.0545	+/-5.39							
Rad Gas Flow											
Batch	556350										
QC1201154645 168404003 DUP Strontium-90		U	-0.00343	-0.00637	pCi/g	0		(0% - 100%)	BXF1	08/14/06	08:33
		Uncert:	+/-0.0203	+/-0.0152							
		TPU:	+/-0.0203	+/-0.0152							
QC1201154647 LCS Strontium-90	1.56			1.30	pCi/g		83	(75%-125%)			
		Uncert:		+/-0.0563							
		TPU:		+/-0.0881							
QC1201154644 MB Strontium-90			U	0.0176	pCi/g						
		Uncert:		+/-0.018							
		TPU:		+/-0.018							

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	556350										
QC1201154646	168404003	MS									
Strontium-90	1.58	U	-0.00343	1.29	pCi/g		82	(75%-125%)			
	Uncert:		+/-0.0203	+/-0.0535							
	TPU:		+/-0.0203	+/-0.0813							
Rad Liquid Scintillation											
Batch	554580										
QC1201150562	168340012	DUP									
Technetium-99		U	0.0338	U	0.266	pCi/g	0	(0% - 100%)	EGD1	08/12/06	00:42
	Uncert:		+/-0.192	+/-0.226							
	TPU:		+/-0.192	+/-0.226							
QC1201150564	LCS										
Technetium-99	13.1			13.6	pCi/g		103	(75%-125%)		08/12/06	01:14
	Uncert:			+/-0.496							
	TPU:			+/-0.599							
QC1201150561	MB										
Technetium-99				U	0.0311	pCi/g				08/12/06	00:26
	Uncert:			+/-0.177							
	TPU:			+/-0.177							
QC1201150563	168340012	MS									
Technetium-99	13.0	U	0.0338	12.0	pCi/g		92	(75%-125%)		08/12/06	00:58
	Uncert:		+/-0.192	+/-0.523							
	TPU:		+/-0.192	+/-0.602							
Batch	554582										
QC1201150570	168340011	DUP									
Tritium		U	1.77	U	1.62	pCi/g	0	(0% - 100%)	DFA1	08/09/06	15:42
	Uncert:		+/-8.20	+/-7.47							
	TPU:		+/-8.20	+/-7.47							
QC1201150572	LCS										
Tritium	68.3			76.2	pCi/g		111	(75%-125%)		08/09/06	16:14
	Uncert:			+/-14.0							
	TPU:			+/-14.1							
QC1201150569	MB										
Tritium				U	0.586	pCi/g				08/09/06	15:26
	Uncert:			+/-8.01							
	TPU:			+/-8.01							
QC1201150571	168340011	MS									
Tritium	61.3	U	1.77	61.8	pCi/g		101	(75%-125%)		08/09/06	15:58
	Uncert:		+/-8.20	+/-12.2							
	TPU:		+/-8.20	+/-12.3							
Batch	554583										
QC1201150574	168404003	DUP									
Carbon-14		U	0.0937	U	0.0422	pCi/g	0	(0% - 100%)	ATH2	08/10/06	01:39
	Uncert:		+/-0.0813	+/-0.075							
	TPU:		+/-0.0813	+/-0.0751							
QC1201150576	LCS										
Carbon-14	7.27			7.14	pCi/g		98	(75%-125%)		08/10/06	03:00
	Uncert:			+/-0.508							
	TPU:			+/-0.520							
QC1201150573	MB										

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QC Summary

Workorder: 168404

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	554583										
Carbon-14			U	-0.0315	pCi/g						
				+/-0.0776							
				TPU: +/-0.0776							
QC1201150575	168404003	MS									
Carbon-14		15.1	U	0.0937	13.8	pCi/g	92	(75%-125%)		08/10/06	02:43
				Uncert: +/-0.0813	+/-1.00						
				TPU: +/-0.0813	+/-1.03						
Batch	555722										
QC1201153223	168340012	DUP									
Iron-55			U	-26.5	U	5.83	pCi/g	0	(0% - 100%)	MXPI	08/12/06 20:54
				Uncert: +/-65.1	+/-36.9						
				TPU: +/-65.1	+/-36.9						
QC1201153225	LCS										
Iron-55		641			660	pCi/g	103	(75%-125%)		08/12/06	21:27
				Uncert: +/-56.2	+/-67.2						
				TPU: +/-67.2							
QC1201153222	MB										
Iron-55			U	18.2	pCi/g					08/12/06	20:38
				Uncert: +/-39.6	+/-39.6						
				TPU: +/-39.6							
QC1201153224	168340012	MS									
Iron-55		717	U	-26.5	688	pCi/g	96	(75%-125%)		08/12/06	21:11
				Uncert: +/-65.1	+/-60.2						
				TPU: +/-65.1	+/-71.6						
Batch	555723										
QC1201153227	168340012	DUP									
Nickel-63			U	3.79	U	6.68	pCi/g	0	(0% - 100%)	MXPI	08/11/06 11:55
				Uncert: +/-5.39	+/-7.43						
				TPU: +/-5.40	+/-7.43						
QC1201153229	LCS										
Nickel-63		512			479	pCi/g	94	(75%-125%)		08/11/06	12:27
				Uncert: +/-22.4	+/-27.1						
				TPU: +/-27.1							
QC1201153226	MB										
Nickel-63			U	15.7	pCi/g					08/11/06	11:38
				Uncert: +/-9.92	+/-9.93						
				TPU: +/-9.93							
QC1201153228	168340012	MS									
Nickel-63		530	U	3.79	511	pCi/g	96	(75%-125%)		08/11/06	12:11
				Uncert: +/-5.39	+/-23.5						
				TPU: +/-5.40	+/-28.7						

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

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QC Summary

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>										
A										
B										
BD										
C										
D										
H										
J										
N/A										
R										
U										
UI										
X										
Y										
^										
h										

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.

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 2b
Split Sample Assessment Forms
(2 Pages)


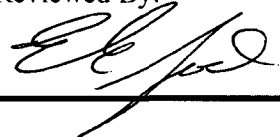
Split Sample Assessment Form

Survey Area#:	9106	Survey Unit #:	0009	Survey Unit Name:	Discharge Canal			
Sample Plan or WPIR#: 2006-0021					SML #: 9106-0009-013			
<p>Sample Description: Comparison of split samples collected from sample measurement location #13 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was <u>9106-0009-013F</u>, the comparison sample was <u>9106-0009-013FS</u>.</p>								
STANDARD					COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	2.85E-02	1.45E-02	2	N/A	4.62E-02	2.76E-02	1.62	N/A
Co-60	0.00E+00	1.74E-02	0	N/A	-2.78E-02	1.52E-02	N/A	N/A
Ni-63	-3.87E+00	4.53E+00	-1	N/A	-9.09E+00	4.46E+00	2.35	N/A
K-40	1.44E+01	6.65E-01	22	0.75 1.33	1.86E+01	6.25E-01	1.29	Y
<p>Comments/Corrective Actions: In consideration of the Cs-137, Co-60 and Ni-63 results, guidance for agreement ranges, obtained from USNRC Inspection Procedure 84750, does not address resolution ratios less than 4, therefore, a determination of acceptability for such ratios cannot be made. Since K-40 was found to be present at an acceptable levels of agreement, no further action is warranted.</p>					Table is provided to show acceptance criteria used to assess split samples.			
					Resolution		Agreement Range	
					4	7	0.50	2.00
					8	15	0.60	1.66
					16	50	0.75	1.33
					51	200	0.80	1.25
		> 200	0.85	1.18				
Performed By:			Date:		Reviewed By:		Date:	
			11-1-06				11/1/06	

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

Split Sample Assessment Form

Survey Area #: 9106	Survey Unit #: 0009	Survey Unit Name: Discharge Canal																														
Sample Plan or WPIR#: 2006-021							SML #: 9106-0009-016																									
Sample Description: Comparison of split samples collected from sample measurement location #16 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was 9106-0009-016F the comparison sample was 9106-0009-016FS.																																
STANDARD					COMPARISON																											
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)																								
Cs-137	1.70E-01	2.17E-02	8	0.6 - 1.66	2.31E-01	2.08E-02	1.36	Y																								
Co-60	2.39E-01	2.33E-02	10	0.6 - 1.66	2.77E-01	3.05E-02	1.16	Y																								
Ni-63	-6.30E+00	4.32E+00	-1	N/A	-1.18E+01	4.58E+00	1.87	N/A																								
K-40	1.44E+01	6.65E-01	22	0.75 - 1.33	1.30E+01	6.25E-01	0.90	Y																								
Comments/Corrective Actions: In consideration of the Ni-63 results, guidance for agreement ranges, obtained from USNRC Inspection Procedure 84750, does not address resolution ratios less than 4, therefore, a determination of acceptability for such ratios cannot be made. Since Cs-137, Co-60 and K-40 were found to be present at an acceptable levels of agreement, no further action is warranted.					Table is provided to show acceptance criteria used to assess split samples.																											
									<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Resolution</th> <th colspan="2">Agreement Range</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>7</td> <td>0.50</td> <td>2.00</td> </tr> <tr> <td>8</td> <td>15</td> <td>0.60</td> <td>1.66</td> </tr> <tr> <td>16</td> <td>50</td> <td>0.75</td> <td>1.33</td> </tr> <tr> <td>51</td> <td>200</td> <td>0.80</td> <td>1.25</td> </tr> <tr> <td colspan="2">> 200</td> <td>0.85</td> <td>1.18</td> </tr> </tbody> </table>				Resolution		Agreement Range		4	7	0.50	2.00	8	15	0.60	1.66	16	50	0.75	1.33	51	200	0.80	1.25
					Resolution		Agreement Range																									
					4	7	0.50	2.00																								
					8	15	0.60	1.66																								
					16	50	0.75	1.33																								
51	200	0.80	1.25																													
> 200		0.85	1.18																													
Performed By: 			Date: 10-31-06		Reviewed By: 			Date: 11/1/06																								

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 2c
Preliminary Data Form
(1 Page)

Preliminary Data Review Form - Samples for the Sign Test

Survey Unit: 9106- 0009
Survey Unit Name: Discharge Canal

Classification: 2
Survey Media: Soil
Type of Survey: Final Status Survey
Type of Measurement: Gross Measurement
Number of Measurements: 15
Operational DCGL: 1

BASIC STATISTICAL QUANTITIES

	Cs-137	Co-60	Ni-63
Minimum Value:	-5.66E-03	-2.33E-02	-1.36E+01
Maximum Value:	5.27E-01	9.04E-01	-1.97E+00
Mean:	1.71E-01	2.03E-01	-8.12E+00
Median:	1.65E-01	1.06E-01	-7.67E+00
Standard Deviation:	1.60E-01	2.58E-01	4.05E+00

RADIONUCLIDE CONCENTRATION (pCi/g)

NUMBER	Cs-137	Co-60	Ni-63	Identified?	Identified?	Identified?
9106-0009-001F	1.65E-01	1.18E-01	-1.97E+00	Y	Y	N
9106-0009-002F	5.27E-01	9.04E-01	-1.20E+01	Y	Y	N
9106-0009-003F	0.00E+00	1.52E-02	-7.67E+00	N	N	N
9106-0009-004F	-5.66E-03	1.99E-02	-2.23E+00	N	N	N
9106-0009-005F	1.91E-01	1.06E-01	-1.30E+01	Y	Y	N
9106-0009-007F	1.03E-01	6.71E-02	-1.36E+01	Y	Y	N
9106-0009-008F	3.72E-02	4.83E-02	-1.29E+01	Y	Y	N
9106-0009-009F	3.97E-01	4.58E-01	-7.24E+00	Y	Y	N
9106-0009-010F	1.56E-01	1.53E-01	-4.44E+00	Y	Y	N
9106-0009-011F	2.14E-03	-2.33E-02	-1.23E+01	N	N	N
9106-0009-013F	2.85E-02	0.00E+00	-3.87E+00	N	N	N
9106-0009-014F	2.17E-01	6.26E-02	-1.04E+01	Y	Y	N
9106-0009-015F	1.86E-01	3.34E-01	-8.35E+00	Y	Y	N
9106-0009-016F	1.70E-01	2.39E-01	-6.30E+00	Y	Y	N
9106-0009-017F	3.88E-01	5.37E-01	-5.48E+00	Y	Y	N

Performed By: Del Rumball

Date: 11-1-06

Independent Review: EE/pe

Date: 11/1/06

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

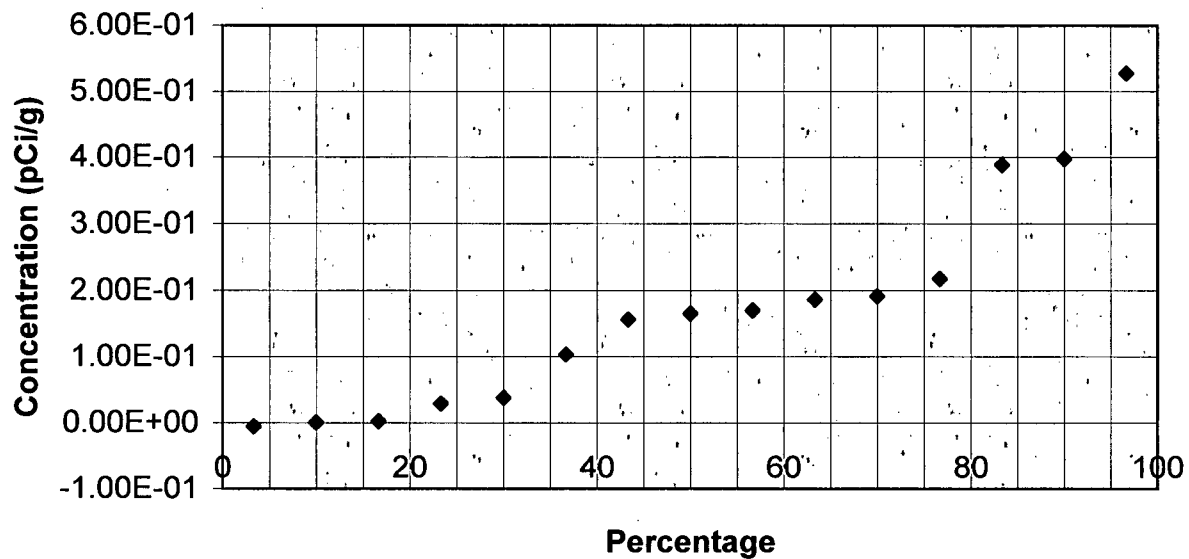
Attachment 2d
Graphical Representation of Data
(6 Pages)

Quantile Plot For Cesium - 137

Survey Unit: 9106-0009

Survey Unit Name: Discharge Canal

Mean: 1.71E-01 pCi/g

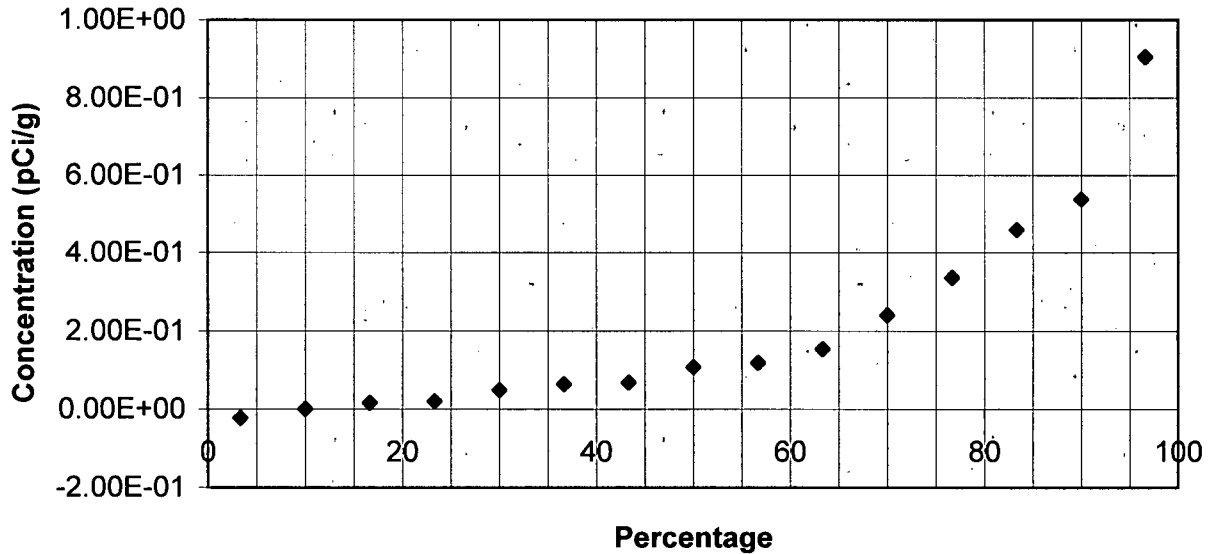


Cs-137	Rank	Percentage
-5.66E-03	1	3 %
0.00E+00	2	10 %
2.14E-03	3	17 %
2.85E-02	4	23 %
3.72E-02	5	30 %
1.03E-01	6	37 %
1.56E-01	7	43 %
1.65E-01	8	50 %
1.70E-01	9	57 %
1.86E-01	10	63 %
1.91E-01	11	70 %
2.17E-01	12	77 %
3.88E-01	13	83 %
3.97E-01	14	90 %
5.27E-01	15	97 %

Prepared By: Paul RandallReviewed By: ElmerDate: 10-31-06Date: 11/1/06

Quantile Plot For Cobalt - 60

Survey Unit: 9106-0009
Survey Unit Name: Discharge Canal
Mean: 2.03E-01 pCi/g



Co-60	Rank	Percentage
-2.33E-02	1	3 %
0.00E+00	2	10 %
1.52E-02	3	17 %
1.99E-02	4	23 %
4.83E-02	5	30 %
6.26E-02	6	37 %
6.71E-02	7	43 %
1.06E-01	8	50 %
1.18E-01	9	57 %
1.53E-01	10	63 %
2.39E-01	11	70 %
3.34E-01	12	77 %
4.58E-01	13	83 %
5.37E-01	14	90 %
9.04E-01	15	97 %

Prepared By:

Carl Randall

Reviewed By:

EEJ

Date:

11-1-06

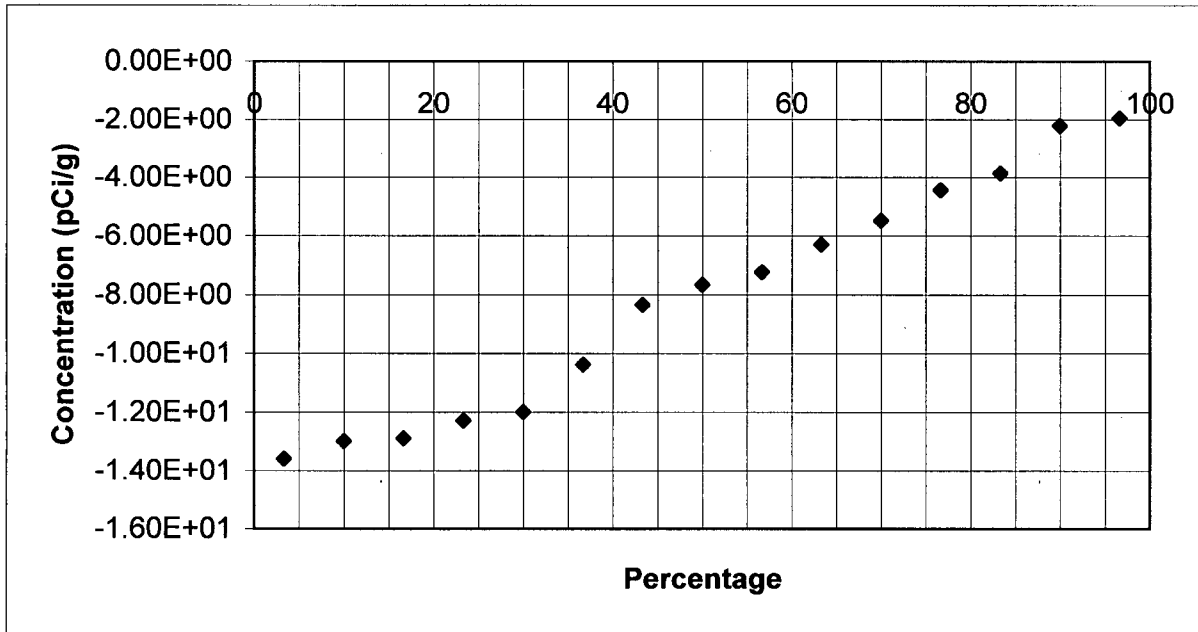
Date:

11/1/06

Quantile Plot For Nickel-63

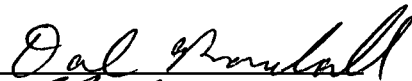
Survey Unit: 9106-0009

Survey Unit Name: Discharge Canal

Mean: $-8.12\text{E}+00$ pCi/g

Ni-63	Rank	Percentage
-1.36E+01	1	3 %
-1.30E+01	2	10 %
-1.29E+01	3	17 %
-1.23E+01	4	23 %
-1.20E+01	5	30 %
-1.04E+01	6	37 %
-8.35E+00	7	43 %
-7.67E+00	8	50 %
-7.24E+00	9	57 %
-6.30E+00	10	63 %
-5.48E+00	11	70 %
-4.44E+00	12	77 %
-3.87E+00	13	83 %
-2.23E+00	14	90 %
-1.97E+00	15	97 %


Prepared By:



Date:

11-1-06

Reviewed By:



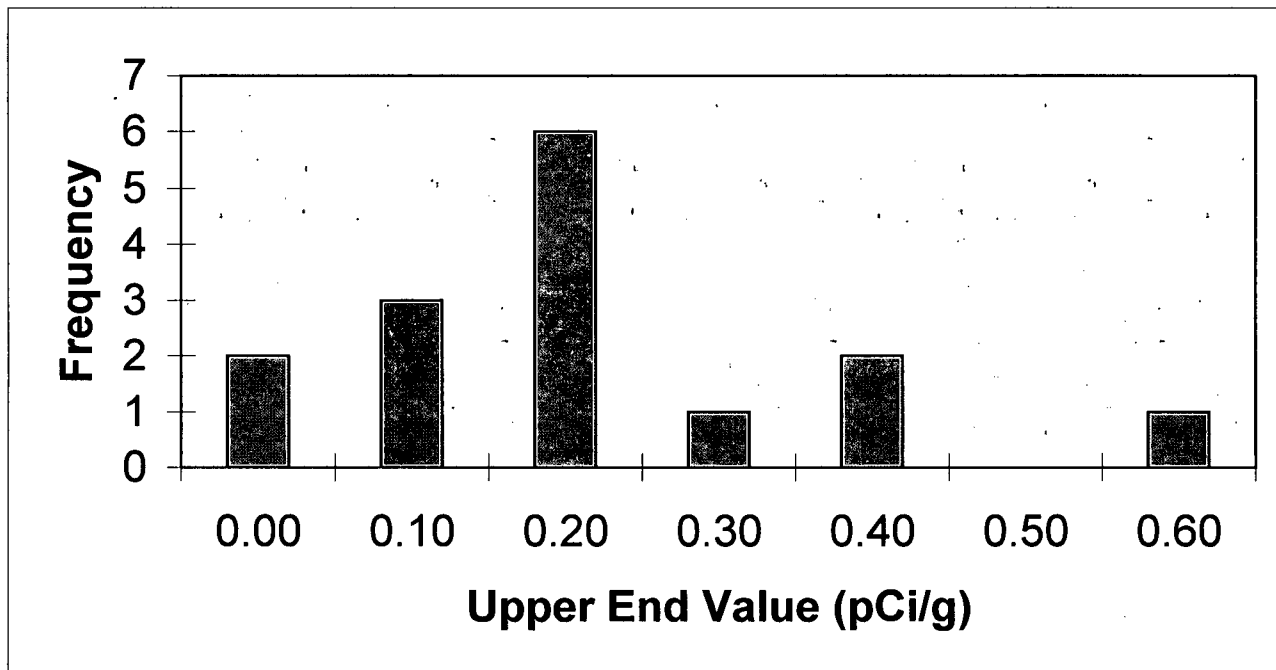
Date:

11/1/06

Frequency Plot For Cesium-137

Survey Unit: 9106-0009
Survey Unit Name: Discharge Canal

Mean: 0.171 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.00	2	13%
0.10	3	20%
0.20	6	40%
0.30	1	7%
0.40	2	13%
0.50	0	0%
0.60	1	7%
Total	15	100%

Prepared By: Orl Rusell

Date: 10-31-06

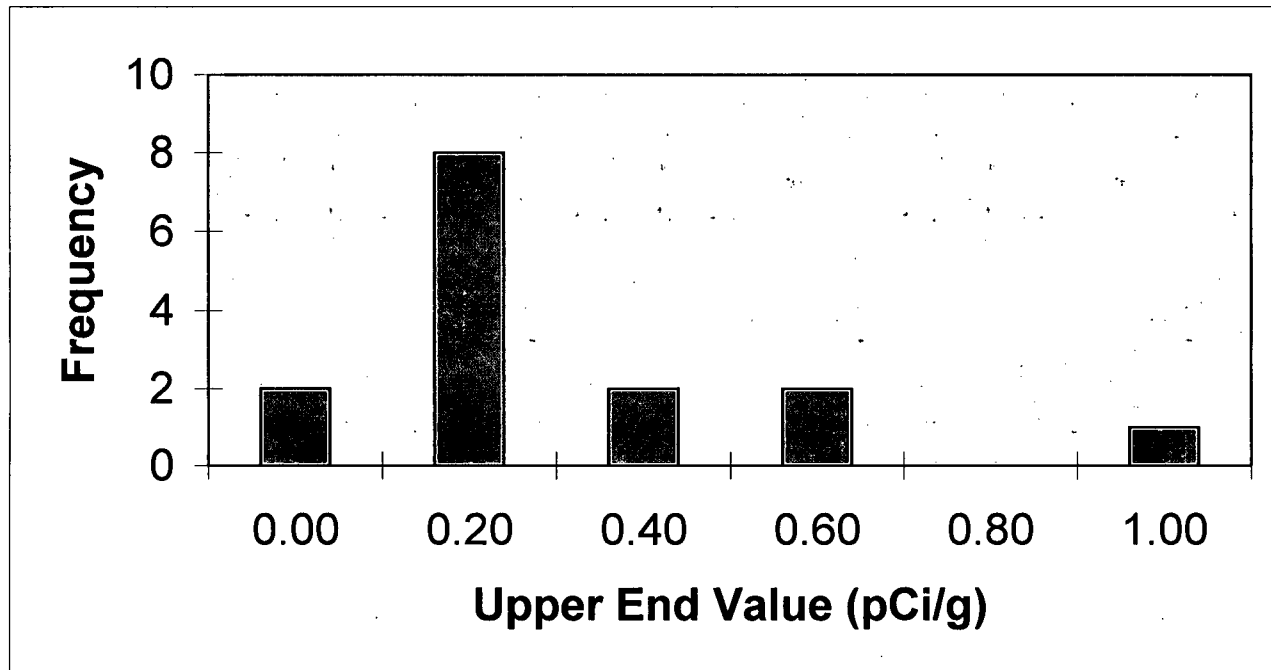
Reviewed By: ELP

Date: 11/1/06

Frequency Plot For Cobalt-60

Survey Unit: 9106-0009
Survey Unit Name: Discharge Canal

Mean: 0.203 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.00	2	13%
0.20	8	53%
0.40	2	13%
0.60	2	13%
0.80	0	0%
1.00	1	7%
Total	15	100%

Prepared By: Dea Newhall

Date: 10-31-06

Reviewed By: [Signature]

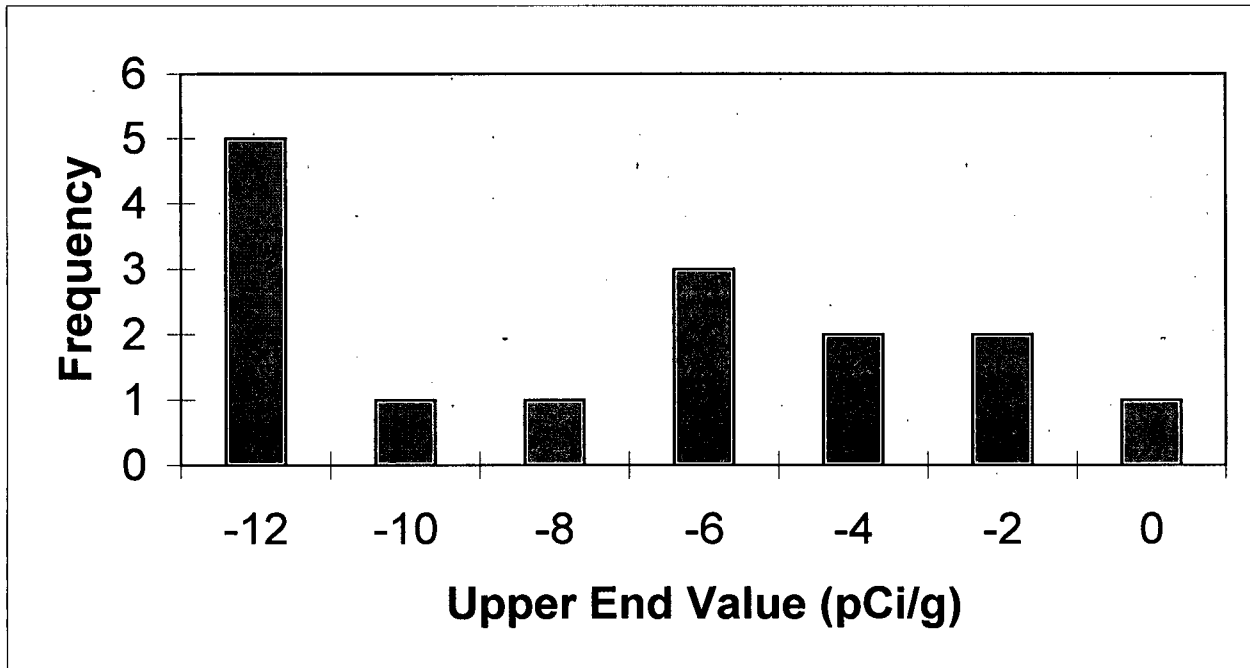
Date: 11/1/06

Frequency Plot For Nickel-63

Survey Unit: 9106-0009

Survey Unit Name: Discharge Canal

Mean: -8.117 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
-12	5	33%
-10	1	7%
-8	1	7%
-6	3	20%
-4	2	13%
-2	2	13%
0	1	7%
Total	15	100%

Prepared By: Dal HamdaniDate: 11-1-06Reviewed By: ELPDate: 11/1/06

DISCHARGE CANAL
SURVEY UNIT 9106-0009
RELEASE RECORD

Attachment 2e
Sign Test Calculation
(1 Page)

Sign Test Calculation Sheet For Multiple Radionuclides

Survey Unit Number: 9106-0009

Survey Unit Name: Discharge Canal

WP&IR#: 2006-021

Classification : 2

TYPE I (α error):0.05TYPE I (β error):0.05

Radionuclides:		Cs-137	Co-60	Ni-63	
Survey Design DCGL (pCi/g):		6.01	2.9	549	
Results Cs-137	Results Co-60	Results Ni-63	Weighted Sum (W_s)	DCGL-Result	Sign
1.65E-01	1.18E-01	1.18E-01	1.24E-01	8.76E-01	1
5.27E-01	9.04E-01	9.04E-01	3.91E-01	6.09E-01	1
0.00E+00	1.52E-02	1.52E-02	5.05E-02	9.49E-01	1
-5.66E-03	1.99E-02	1.99E-02	6.11E-02	9.39E-01	1
1.91E-01	1.06E-01	1.06E-01	1.04E-01	8.96E-01	1
1.03E-01	6.71E-02	6.71E-02	7.48E-02	9.25E-01	1
3.72E-02	4.83E-02	4.83E-02	5.86E-02	9.41E-01	1
3.97E-01	4.58E-01	4.58E-01	2.70E-01	7.30E-01	1
1.56E-01	1.53E-01	1.53E-01	1.30E-01	8.70E-01	1
2.14E-03	-2.33E-02	-2.33E-02	4.49E-02	9.55E-01	1
2.85E-02	0.00E+00	0.00E+00	5.70E-02	9.43E-01	1
2.17E-01	6.26E-02	6.26E-02	1.89E-01	8.11E-01	1
1.86E-01	3.34E-01	3.34E-01	1.90E-01	8.10E-01	1
1.70E-01	2.39E-01	2.39E-01	1.59E-01	8.41E-01	1
3.88E-01	5.37E-01	5.37E-01	2.38E-01	7.62E-01	1

Number of Positive Differences (S+): 15

Critical Value: 11

Survey Unit: Meets Acceptance Criterion

Performed By: Doc RandallDate: 11-1-06Independent Review: [Signature]Date: 11/1/06

Note Weighted Sum values includes HTD components. See Compass run for more detail.

DISCHARGE CANAL
SURVEY UNIT 9106-0009

RELEASE RECORD

Attachment 2f
COMPASS DQA Surface Soil Report with
Retrospective Power Curve
(4 Pages)

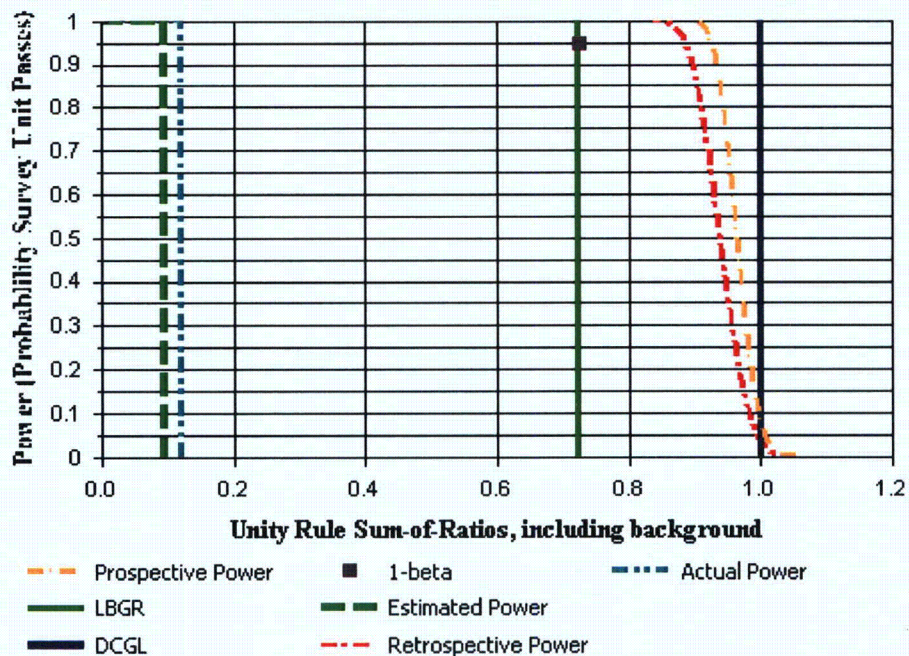


DQA Surface Soil Report

Assessment Summary

Site:	9106-0009 (19mrem/yr)		
Planner(s):	Dale Randall		
Survey Unit Name:	9106-0009		
Report Number:	1		
Survey Unit Samples:	15		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	<i>Reject Null Hypothesis (Survey Unit PASSES)</i>		

Retrospective Power Curve





DQA Surface Soil Report

Survey Unit Data

NOTE: Type = "S" indicates survey unit sample.
Type = "R" indicates reference area sample.

Sample Number	Type	Cm-244 (pCi/g)	Co-60 (pCi/g)	Cs-137 (pCi/g)
9106-0009-001F	S	0.33	0.12	0.16
9106-0009-002F	S	0.01	0.9	0.53
9106-0009-003F	S	0.33	0.02	0
9106-0009-004F	S	0.33	0.02	-0.01
9106-0009-005F	S	0.33	0.11	0.19
9106-0009-007F	S	0.33	0.07	0.1
9106-0009-008F	S	0.33	0.05	0.04
9106-0009-009F	S	0.33	0.46	0.4
9106-0009-010F	S	0.33	0.15	0.16
9106-0009-011F	S	1.39	-0.02	0
9106-0009-013F	S	0.33	0	0.03
9106-0009-014F	S	0	0.06	0.22
9106-0009-015F	S	0.33	0.33	0.19
9106-0009-016F	S	0.33	0.24	0.17
9106-0009-017F	S	-0.07	0.54	0.39

Sample Number	Type	H-3 (pCi/g)	Ni-63 (pCi/g)
9106-0009-001F	S	13.82	-1.97
9106-0009-002F	S	4.12	-12
9106-0009-003F	S	13.82	-7.67
9106-0009-004F	S	13.82	-2.23
9106-0009-005F	S	13.82	-13
9106-0009-007F	S	13.82	-13.6
9106-0009-008F	S	13.82	-12.9
9106-0009-009F	S	13.82	-7.24
9106-0009-010F	S	13.82	-4.44
9106-0009-011F	S	3.69	-12.3
9106-0009-013F	S	13.82	-3.87
9106-0009-014F	S	46.9	-10.4
9106-0009-015F	S	13.82	-8.35
9106-0009-016F	S	13.82	-6.3
9106-0009-017F	S	0.58	-5.48



DQA Surface Soil Report

Modified Data (Unity Rule SOR)

NOTE: Type = "S" indicates survey unit sample.
Type = "R" indicates reference area sample.

Sample Number	Type	Sum-of-Ratios (SOR)
9106-0009-001F	S	0.12
9106-0009-002F	S	0.39
9106-0009-003F	S	0.05
9106-0009-004F	S	0.06
9106-0009-005F	S	0.1
9106-0009-007F	S	0.07
9106-0009-008F	S	0.06
9106-0009-009F	S	0.27
9106-0009-010F	S	0.13
9106-0009-011F	S	0.05
9106-0009-013F	S	0.06
9106-0009-014F	S	0.19
9106-0009-015F	S	0.19
9106-0009-016F	S	0.16
9106-0009-017F	S	0.24



DQA Surface Soil Report

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	15	N/A	N=13
Mean (SOR)	0.14	N/A	0.09
Median (SOR)	0.12	N/A	N/A
Std Dev (SOR)	0.10	N/A	0.07
High Value (SOR)	0.39	N/A	N/A
Low Value (SOR)	0.05	N/A	N/A