Book 13 of 17

Final Status Survey
Final Report Phase IV

Appendix A12
Survey Unit Release Record
9106-0012, Discharge Canal

November 2006

CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
DISCHARGE CANAL
(PERMANENT WETLAND AREA)
SURVEY UNIT 9106-0012

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Revision 0

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9106-0012 (Discharge Canal) is designated as Final Status Survey (FSS) Class 2 and consists of approximately 7,272 m^2 (1.80 acres) of water covered sediment in an area located approximately 0.73 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. This survey unit comprises the northern portion of the permanent wetland area.

This survey unit is a wetland area that was initially a portion of the central peninsula survey area 9530. Prior planning efforts, which culminated in the 2005 surface soils sampling campaign, primarily focused on surface soil sampling to a depth of 6". This survey data indicated that the radionuclides of concern were primarily Co-60 and Cs-137. A few of the samples taken slightly exceed the DCGL for soil media using the resident farmer scenario. Due to land access limitations and its proximity to the discharge canal, it is believed that all of the plant derived contamination found to be present was deposited at this location by waterborne discharges that were transported into the wetland by seasonal flood events and other periods of high water level.

As part of the modifications requested in License Basis Document Change Request (LBDCR) #55, dated 2-12-06, central peninsula Survey Units 9530-0005 and 9530-0006 are to be reassigned as discharge canal units 9106-0012 and 9106-0013. LBDCR # 55, states "These permanent wetland areas are being added to the canal due to continuous water intrusion into the area from tidal influence. Land area survey and sampling protocols are impractical. Evaluation of sediment is more appropriate as the area will not support crops."

The survey unit is bounded as follows: Survey Area 9530 is to the north and west (called north as oriented with the north to south flow of the Connecticut River), Survey Area 9106 (Discharge Canal) is to the east, Survey Unit 9106-0013 is to the south. The survey unit comprises sediments to the depth of three (3) feet from the top of the sediment layer.

This survey unit is bounded by reference coordinates E013 through E028 and by S125 through S136 (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 9106-0012 as Class 2 in June 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 "walk-down."

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. This was expected since the discharge canal served as the licensed discharge pathway for liquid releases. Several events indicated the potential for plant related contamination in the survey unit. These included a number of primary side system to secondary side system leakage events, contamination found to be present in secondary side systems and components, and unmonitored spills that drained to the discharge canal. In 1986, samples were taken from the legacy dredge spoils removed in 1979 dredge spoils area and from recently dredged canal sediment. The sample analyses indicated that the 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 of 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.

A review of the historical documents shows that low-levels of contamination being identified during a scoping survey of the Southern Peninsula area. The results were not expected for a Class 3 area (9531). The material discovery warranted additional survey and sampling prior to the FSS of Survey Area 9531. Additional areas of contamination were found near a small inlet that communicates with the discharge canal. The boundary and FSS Survey Area 9531 was revised, and the suspect area was included in Survey Area 9530. Subsequent survey and sampling since 2002 has identified four (4) areas of concern. The radionuclides of concern are Cs-137 and Co-60 with maximum reported concentrations of 3.88 ρCi/g and 2.62 ρCi/g respectively. The relevance of these results for FSS DCGL comparisons, however, is questionable since the sampling method called for 6" surface soil samples to a

depth of 6". The current dose model for canal sediment sampling requires a core of at least three (3) feet in depth.

A characterization was performed by Site Closure personnel in May of 2006 and seven (7) sediment samples from seven (7) locations were taken. All of the samples were analyzed by gamma spectroscopy. Although no additional HTD testing was performed for characterization; four (4) of the fifteen (15) samples taken to demonstrate compliance with the release criteria during FSS were tested for the full suite of HTD nuclides to provide additional assurance that all of the radionuclides of concern were appropriately addressed. Although some Co-60 was positively detected in earlier sampling efforts, each of the Co-60 results for characterization was below its associated detection limits. Consequently, only Cs-137 was used to calculate the required number of samples for the Sign Test. Note that since both Cs-137 and Co-60 are gamma emitting easy-to-detect (ETD) nuclides, the FSS gamma spec results will provide concentration data for each of these isotopes. As a result of characterization, the radionuclide of concern identified for FSS planning purposes was Cs-137 (refer to Table 1).

Table 1 – Basic Statistical Quantities for Cs-137 from the Characterization Survey

Parameter	Cs-137 (pCi/g)
Minimum Value:	-2.56E-03
Maximum Value:	6.37E-02
Mean:	2.42E-02
Median:	1.11E-02
Standard Deviation:	2.79E-02

NOTE: The Operational DCGL from Table 2 is 6.01 pCi/g for Cs-137.

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 9106-0012 did not exceed the release criteria specified in the LTP and that the potential dose from residual radioactivity is As Low As Reasonably Achievable (ALARA).

A fundamental precursor to survey design is to establish a relationship between the release criteria and some measurable quantity. This is done through the development of 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:

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

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 soil must be reduced when using the groundwater dose values discussed above.

This survey unit is affected by existing groundwater, but is unaffected by future groundwater (reference CY memo ISC 06-024). Therefore, dose contribution from existing groundwater 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 remaining within the groundwater saturated zone in the area (reference CY memo ISC 06-024). The dose contribution from future groundwater is zero (0) mrem/yr TEDE.

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 soil 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 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.

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. Characterization was performed in May of 2006 as discussed in Section 2. Cs-137 was found to be the predominate radionuclide of concern. The basic statistical quantities (i.e., mean, standard deviation, median) for Cs-137 are provided in Table 1.

As part of the DQOs applied to laboratory processes, analysis results were reported as actual calculated results. Results reported as less than Minimum Detectable Concentration (<MDC) were not accepted for FSS. Sample report

summaries included unique sample identification, analytical method, radionuclide, result, and uncertainty to two (2) standard deviations, laboratory data qualifiers, units, and the required and observed MDC.

4. SURVEY DESIGN

The level of effort associated with planning a survey is based on the complexity of the survey and nature of the hazards. Guidance for preparing FSS plans is provided in Procedure RPM 5.1-11, *"Preparation of Final Status Survey Plans".*

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 3 of this Release Record.

The DQO process determined that Cs-137 was the radionuclide of concern (refer to Section 2).

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".

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.

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

The Sign Test was selected as the non-parametric statistical test to demonstrate that the null hypothesis was rejected. The use of the Sign Test did not require the selection or use of a background reference area, which simplified survey design and implementation. In addition, this approach is conservative since it includes 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 3.10 pCi/g Cs-137 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 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.

Table 3 -Sample Measurement Locations with Associated GPS Coordinates

Designation	Northing	Easting
9106-0012-001F	235242.09	671825.19
9106-0012-002F	235242.09	671902.50
9106-0012-003F	235242.09	671979.81
9106-0012-004F	235175.14	671786.54
9106-0012-005F	235175.14	671863.85
9106-0012-006F	235175.14	671941.16
9106-0012-007F	235175.14	672018.47
9106-0012-008F	235175.14	672095.78
9106-0012-009F	235108.19	671825.19
9106-0012-010F	235108.19	671902.50
9106-0012-011F	235108.19	671979.81
9106-0012-012F	235108.19	672057.12
9106-0012-013F	235041.24	671941.16
9106-0012-014F	235041.24	672018.47
9106-0012-015F	234974.28	671979.81

Four (4) sediment samples were analyzed for the full suite of radionuclides specified in Table 2, exceeding the requirement to analyze 5% of the sample population for HTD analyses 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 for HTD analyses.

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.

Table 4 – Synopsis of the Survey Design [1]

Feature	Design Criteria	Basis
Survey Unit Land Area	7,272 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 2.79E-02 ρCi/g the LBGR was set to 3.10 ρCi/g to maintain Relative Shift in the range of 1 and 3, Relative Shift was 2.0
Grid Spacing	23.7 m	Based on triangular grid
Design DCGL	3.16 ρCi/g Cs-137	To achieve ten (10) mrem/yr TEDE
Operational DCGL	6.01 ρCi/g Cs-137	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 ρCi/g Cs-137	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
(2) The allowable dose for soil in this survey unit is nineteen (19) mrem/yr TEDE as the bounding dose from existing and future groundwater has been established based on field data (reference CY memo ISC 06-024.)

5. SURVEY IMPLEMENTATION

Final Status Survey field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0021. 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 an amphibious platform. The core barrel was a three (3) inch diameter thin-walled aluminum tube which also served as a core liner (ten feet or less). A core catcher was available to prevent the sample from sliding out of the bottom of the tube. 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 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"* and FSS design. Samples were controlled, transported, stored, and transferred to the off-site laboratory using COC protocols.

Four (4) samples (9106-0012-004F, 9106-0012-005F, 9106-0012-010F and 9106-0012-014F) were selected for HTD radionuclide analysis by the off-site laboratory.

The implementation of quality control measures included the collection of two (2) split samples at locations 9106-0012-009F and 9106-0012-013F for comparative 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. All analyses were performed to the required MDC.

Cs-137 was positively identified (i.e., a result greater than two (2) standard deviations uncertainty) in six (6), Co-60 was positively identified in three (3) of the fifteen (15) samples.

Co-60 and 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. None 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) sample; however, each of the positive results for HTD radionuclides could 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 Soil Sample Results

Sample Number	Cs-137 pCi/g	Fraction of the Operational DCGL (1)
9106-0012-001F	2.25E-02	3.74E-03
9106-0012-002F	4.39E-02	7.30E-03
9106-0012-003F	1.72E-02	2.86E-03
9106-0012-004F	1.87E-02	3.11E-03
9106-0012-005F	1.19E-01	1.98E-02
9106-0012-006F	6.95E-02	1.16E-02
9106-0012-007F	6.47E-02	1.08E-02
9106-0012-008F	3.07E-02	5.11E-03
9106-0012-009F	5.93E-03	9.87E-04
9106-0012-010F	3.23E-02	5.37E-03
9106-0012-011F	1.49E-02	2.48E-03
9106-0012-012F	1.63E-02	2.71E-03
9106-0012-013F	7.93E-03	1.32E-03
9106-0012-014F	1.37E-01	2.28E-02
9106-0012-015F	9.50E-03	1.58E-03

(1) The Operational DCGL from Table 2 is 6.01 pCi/g for Cs-137.

Although biased sampling was considered for locations in near the area where surface samples containing some plant derived activity had been collected in the historical records, it was not deemed necessary as some random sample locations fell into the proximity of the sample points that would have been selected.

7. QUALITY CONTROL

The two (2) split samples taken for QC were analyzed by the off-site laboratory. 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."* For both QC split samples, there was an acceptable level of agreement.

The sample analysis vendor, GEL, 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

None of the sample results were found to exceed the Operational DCGL of nineteen (19) mrem/yr. Thus, no investigations were required.

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 soil used to demonstrate compliance with the LTP and CTDEP 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 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 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 need to change the original LBGR in order to maintain the number of samples at fifteen (15) to meet the Operational DCGL. However, the value of LBGR is not 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 unrestricted release criterion with adequate power as required by the DQOs.

The range of the data, about 3.24 standard deviations, was not unusually large. The difference between the mean and median was 45.0% 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 1.55.

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

12. ANOMALIES

No anomalies were noted in the performance of this FSS.

13. CONCLUSION

Survey Unit 9106-0012 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.

The dose contribution from sediment in this survey unit is 0.13 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

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

This survey unit is also 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 exposures from the three (3) components as described in Section 3, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity, will not exceed 0.13 mrem/yr Total Effective Dose Equivalent (TEDE).

14. ATTACHMENTS

14.1 Attachment 1 – Figures

14.2 Attachment 2 – Sample and Statistical Data

Attachment 1
Figures
(4 pages)

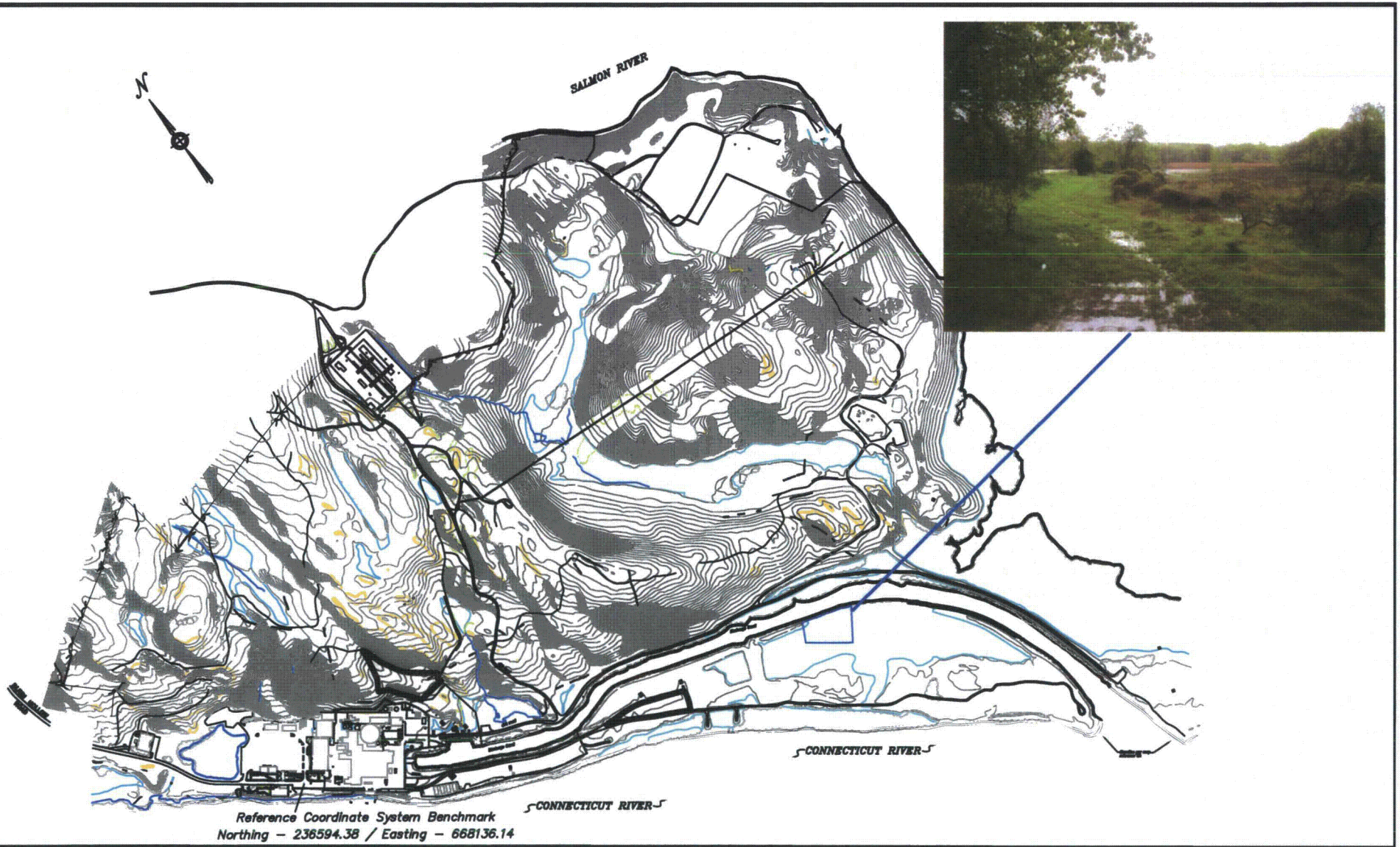

Figure 1	*Connecticut Yankee Atomic Power Company* *Site Map With Reference To Survey Unit 9106-0012*	*Date*	*By*
		October 2006	*E.E.S.*

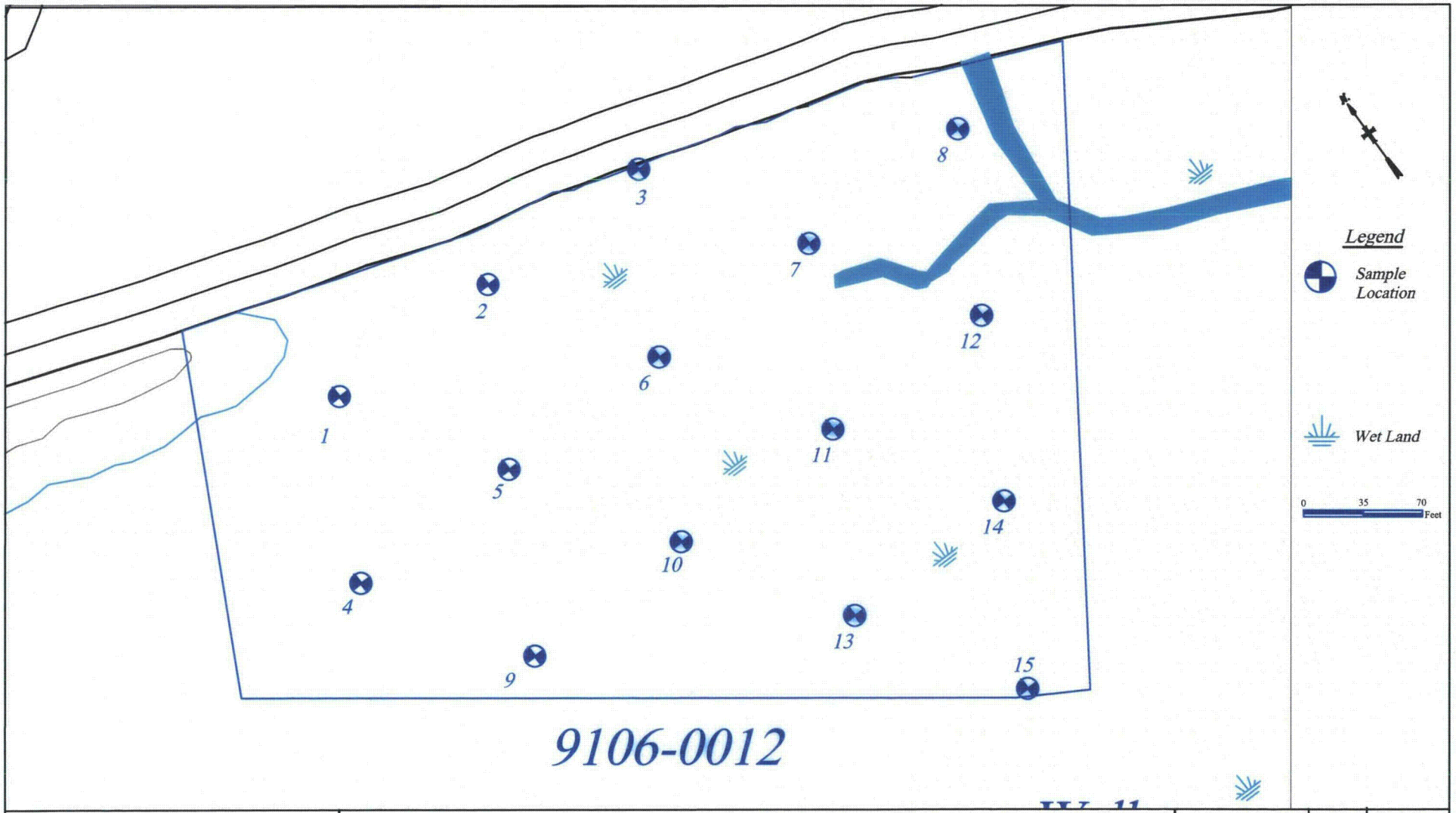

Figure 2	Connecticut Yankee Atomic Power Company 9106-0012 Final Status Survey Design	Date	By	Rev.
		October 2006	E.E.S.	0

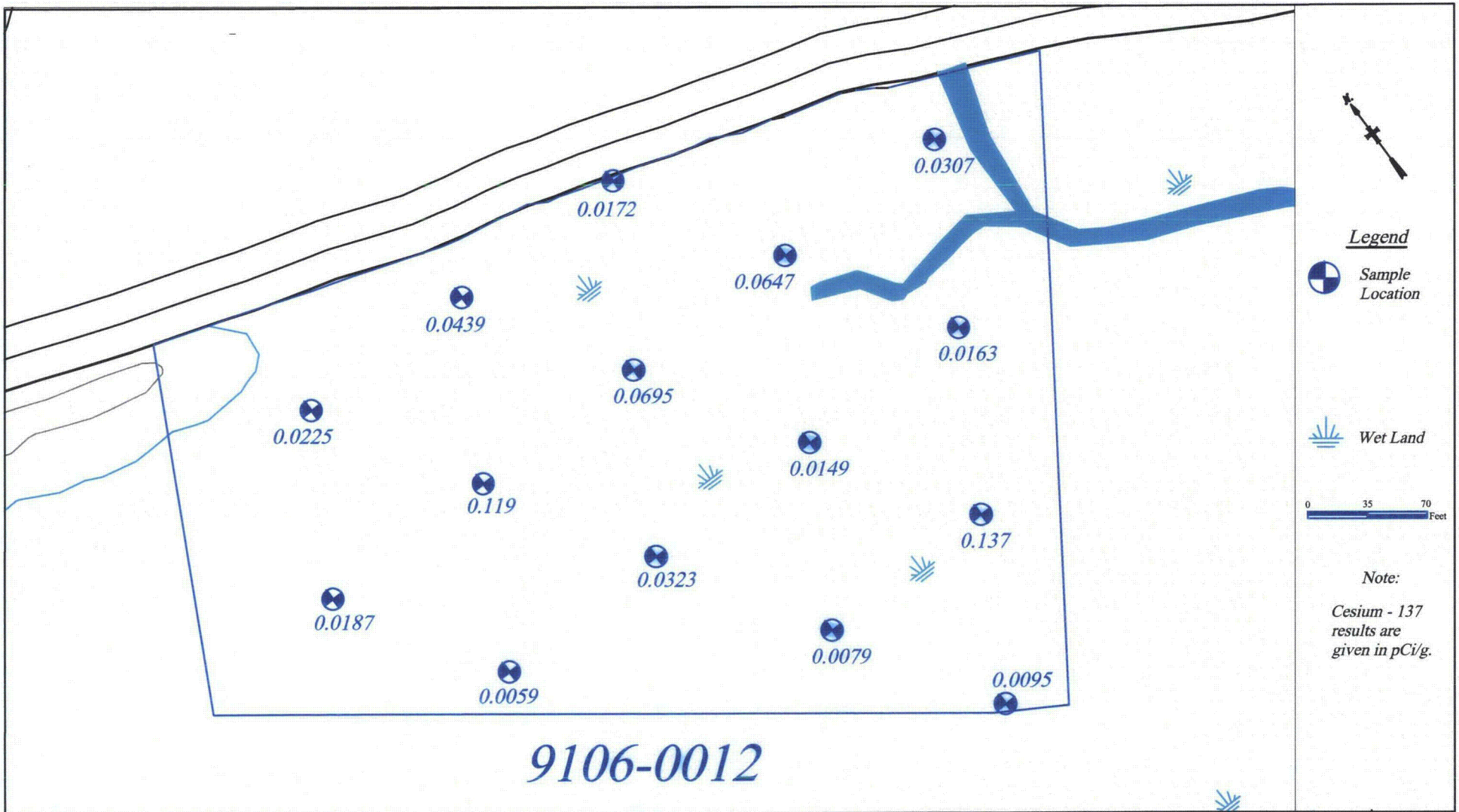

Figure 3	Connecticut Yankee Atomic Power Company 9106-0012 Final Status Survey Design Cesium - 137 Posting Plot	Date	By	Rev.
		October 2006	E.E.S.	0

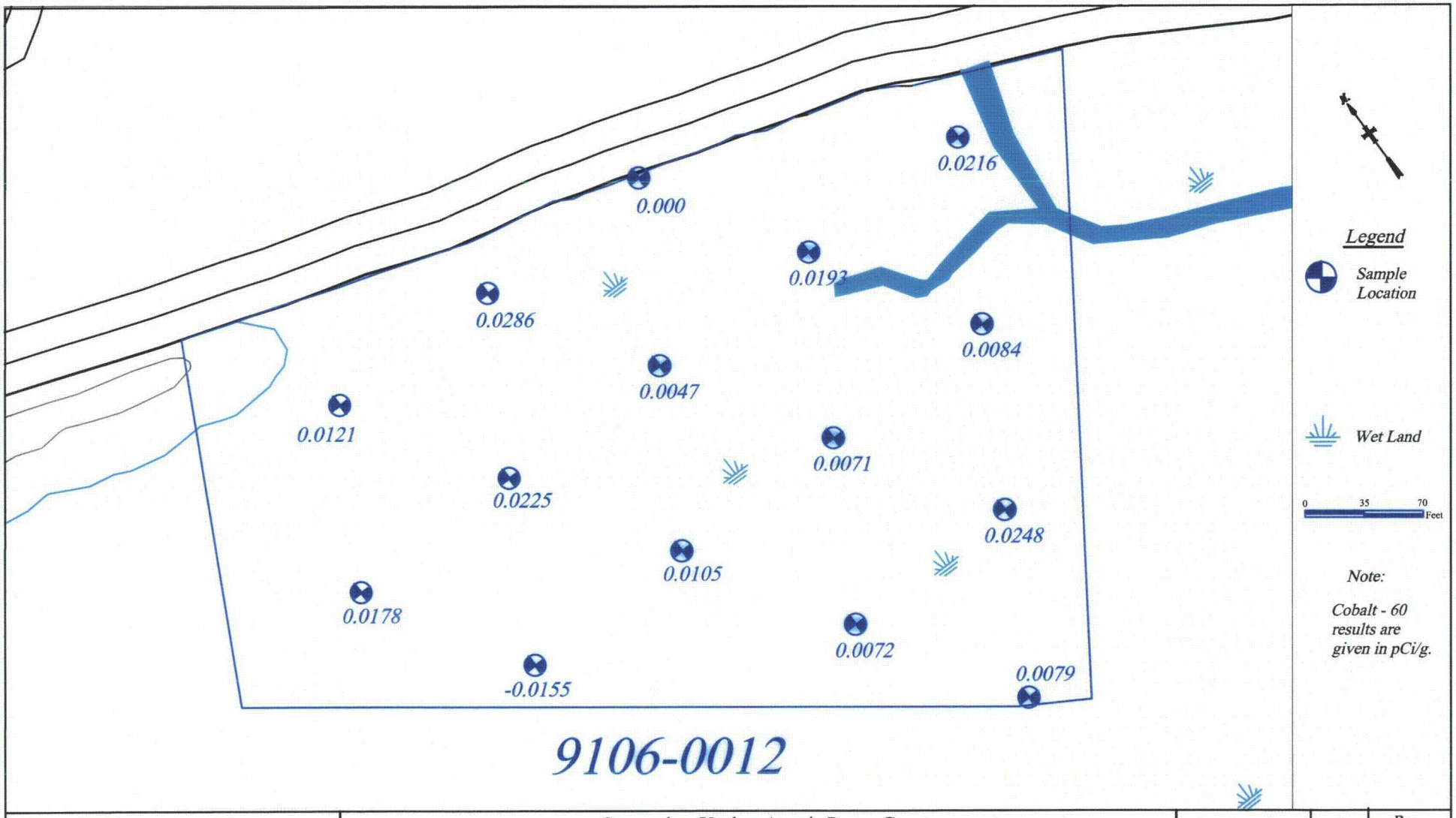

Figure 4	Connecticut Yankee Atomic Power Company 9106-0012 Final Status Survey Design Cobalt - 60 Posting Plot	Date	By	Rev.
		October 2006	E.E.S.	0

Attachment 2
Sample and Statistical Data

Attachment 2a
Sample Data
(178 Pages)

Table of Contents

General Narrative

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil
PO# 002332
Work Order: 166653
SDG: MSR #06-0967

July 21, 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 July 7, 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):

Sample ID	Client Sample ID
166653001	9106-0012-002F
166653002	9106-0012-003F
166653003	9106-0012-005F
166653004	9106-0012-006F
166653005	9106-0012-013F
166653006	9106-0012-013FS
166653007	9106-0012-007F
166653008	9106-0012-008F
166653009	9106-0012-012F
166653010	9106-0012-014F

166653011	9106-0012-011F
166653012	9106-0012-015F
166653013	9106-0012-009F
166653014	9106-0012-009FS
166653015	9106-0012-001F
166653016	9106-0012-004F
166653017	9106-0012-010F

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:

Fifteen soil samples were analyzed for FSSGAM and two soil samples were analyzed for FSSALL.

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

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

Chain of Custody Form

No. 2006-00451

1666653-1.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0012-002F	6/23/06	08:56	SE	C	BP	X						Transferred from COC 2006-00436	001
9106-0012-003F	6/23/06	08:39	SE	C	BP	X						Transferred from COC 2006-00436	002
9106-0012-004F	6/23/06	09:32	SE	C	BP		X					Transferred from COC 2006-00436	016
9106-0012-005F	6/23/06	09:56	SE	C	BP	X						Transferred from COC 2006-00436	003
9106-0012-006F	6/23/06	13:07	SE	C	BP	X						Transferred from COC 2006-00436	004
9106-0012-010F	6/23/06	11:08	SE	C	BP		X					Transferred from COC 2006-00436	017
9106-0012-013F	6/23/06	10:56	SE	C	BP	X						Transferred from COC 2006-00436	005
9106-0012-013FS	6/23/06	10:56	SE	C	BP	X						Transferred from COC 2006-00436	006

Lab Use Only
Comments:

NOTES: PO #: 002332 MSR #: 06-0963 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7919 8876 4783

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

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-6-06 / 1400		7/7/06 900
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

5

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

Chain of Custody Form

No. 2006-00452

1666531.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0012-007F	6/21/06	09:32	SE	C	BP	X						Transferred from COC # 2006-00433	007
9106-0012-008F	6/21/06	09:00	SE	C	BP	X						Transferred from COC # 2006-00433	008
9106-0012-012F	6/21/06	09:19	SE	C	BP	X						Transferred from COC # 2006-00433	009
9106-0012-014F	6/21/06	10:05	SE	C	BP	X						Transferred from COC # 2006-00433	010
9106-0012-011F	6/21/06	09:51	SE	C	BP	X						Transferred from COC # 2006-00433	011
9106-0012-015F	6/21/06	14:24	SE	C	BP	X						Transferred from COC # 2006-00433	012
9106-0012-009F	6/23/06	10:33	SE	C	BP	X						Transferred from COC # 2006-00436	013
9106-0012-009FS	6/23/06	10:33	SE	C	BP	X						Transferred from COC # 2006-00436	014
9106-0012-001F	6/23/06	09:18	SE	C	BP	X						Transferred from COC # 2006-00436	015

Lab Use Only
Comments:

NOTES: PO #: 002332 MSR #: 06-0967 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
Bill of Lading #
7927 8782 3129

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

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-6-06/1400	[signature]	7/7/06 900
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: 7/7/06

SDG#:

Work Order Number: 166653 | 166655 | 166656

Shipping Container ID: 7919 8876 4782 - 23°C
7910 4024 2957 - 22°C
7927 8782 3139 - 23°C

Chain of Custody # 2006-00449
2006-00442
2006-00452

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°C - 22°C - 23°C
5. Vermiculite/packing materials is: Wet [✓] Dry [ ]
6. Number of samples in shipping container: (1) 3 ; (2) 12 (3) 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: [signature] Date: 7/7/06 0900

Telephoned to: On By

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 166653, 166655, 166656
Date Received: 7/7/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

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

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?		✓		Maximum Counts Observed*: 18m 40
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 CW Date: 7/7/06

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#06-0967

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:	546536
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131828	Method Blank (MB)
1201131829	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131830	166653016(9106-0012-004F) Matrix Spike (MS)
1201131831	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: 166653016 (9106-0012-004F).

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.

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:	546537
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131832	Method Blank (MB)
1201131833	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131834	166653016(9106-0012-004F) Matrix Spike (MS)
1201131835	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: 166653016 (9106-0012-004F).

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.

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:	546538
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131836	Method Blank (MB)
1201131837	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131838	166653016(9106-0012-004F) Matrix Spike (MS)
1201131839	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: 166653016 (9106-0012-004F).

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.

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

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	546518
Prep Batch Number:	546298

Sample ID	Client ID
166653001	9106-0012-002F
166653002	9106-0012-003F
166653003	9106-0012-005F
166653004	9106-0012-006F
166653005	9106-0012-013F
166653006	9106-0012-013FS
166653007	9106-0012-007F
166653008	9106-0012-008F
166653009	9106-0012-012F
166653010	9106-0012-014F
166653011	9106-0012-011F
166653012	9106-0012-015F
166653013	9106-0012-009F
166653014	9106-0012-009FS
166653015	9106-0012-001F
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131792	Method Blank (MB)
1201131793	166653001(9106-0012-002F) Sample Duplicate (DUP)
1201131794	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: 166653001 (9106-0012-002F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
Sample 166653004 (9106-0012-006F) was recounted due to a detector error.

Miscellaneous Information:

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

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Europium-155	166653001
			166653002
			166653015
			166653017
		Manganese-54	166653017
UI	Data rejected due to low abundance.	Cesium-134	166653004
			166653005
			166653006
			166653008
			166653011
			166653012
			166653013
			166653017
		Cobalt-60	166653002
		Europium-155	1201131793

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:	547395
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201133604	Method Blank (MB)

1201133605	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201133606	166653016(9106-0012-004F) Matrix Spike (MS)
1201133607	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: 166653016 (9106-0012-004F).

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
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:	546461

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131629	Method Blank (MB)
1201131630	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131631	166653016(9106-0012-004F) Matrix Spike (MS)
1201131632	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: 166653016 (9106-0012-004F).

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.

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:	546577
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131922	Method Blank (MB)
1201131923	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131924	166653016(9106-0012-004F) Matrix Spike (MS)
1201131925	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: 166653016 (9106-0012-004F).

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.

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:	546578
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131926	Method Blank (MB)
1201131927	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131928	166653016(9106-0012-004F) Matrix Spike (MS)
1201131929	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: 166653016 (9106-0012-004F).

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.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL FSS**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	546579

Sample ID	**Client ID**
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131930	Method Blank (MB)
1201131931	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131932	166653016(9106-0012-004F) Matrix Spike (MS)
1201131933	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: 166653016 (9106-0012-004F).

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.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	549860

Sample ID	**Client ID**
166653016	9106-0012-004F
166653017	9106-0012-010F

1201139569	Method Blank (MB)
1201139570	166653017(9106-0012-010F) Sample Duplicate (DUP)
1201139571	166653017(9106-0012-010F) Matrix Spike (MS)
1201139572	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: 166653017 (9106-0012-010F).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

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: A Ewell 7/21/06

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#06-0967 GEL Work Order: 166653

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 21, 2006

Client Sample ID:	9106 0012 002F	Project:	YANK01204
Sample ID:	166653001	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium 228		0.971	+/ 0.202	0.0844	+/ 0.202	0.181	pCi/g		MJH1 07/17/06	1336	546518	1
Americium 241	U	0.0707	+/ 0.117	0.0846	+/ 0.117	0.175	pCi/g					
Bismuth 212	U	0.307	+/ 0.392	0.183	+/ 0.392	0.389	pCi/g					
Bismuth 214		0.631	+/ 0.126	0.0433	+/ 0.126	0.0915	pCi/g					
Cesium 134	U	0.0426	+/ 0.0359	0.0288	+/ 0.0359	0.061	pCi/g					
Cesium 137	U	0.0439	+/ 0.0616	0.0211	+/ 0.0616	0.0451	pCi/g					
Cobalt 60	U	0.0286	+/ 0.0261	0.0245	+/ 0.0261	0.0537	pCi/g					
Europium 152	U	0.0378	+/ 0.0689	0.0554	+/ 0.0689	0.116	pCi/g					
Europium 154	U	0.022	+/ 0.0982	0.0799	+/ 0.0982	0.173	pCi/g					
Europium 155	UI	0.00	+/ 0.0859	0.0536	+/ 0.0859	0.111	pCi/g					
Lead 212		1.02	+/ 0.0786	0.032	+/ 0.0786	0.0665	pCi/g					
Lead 214		0.815	+/ 0.125	0.041	+/ 0.125	0.0859	pCi/g					
Manganese 54	U	0.00801	+/ 0.0284	0.0239	+/ 0.0284	0.0509	pCi/g					
Niobium 94	U	0.0167	+/ 0.025	0.0198	+/ 0.025	0.0421	pCi/g					
Potassium 40		14.3	+/ 1.18	0.177	+/ 1.18	0.400	pCi/g					
Radium 226		0.631	+/ 0.126	0.0433	+/ 0.126	0.0915	pCi/g					
Silver 108m	U	0.011	+/ 0.0233	0.0184	+/ 0.0233	0.0388	pCi/g					
Thallium 208		0.279	+/ 0.0573	0.0224	+/ 0.0573	0.0474	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 002F
Sample ID: 166653001

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

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 003F	Project:	YANK01204
Sample ID:	166653002	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	42.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.962	+/ 0.182	0.0708	+/ 0.182	0.153	pCi/g		MJH1	07/17/06	1337	546518	1
Americium 241	U	0.0529	+/ 0.114	0.0856	+/ 0.114	0.177	pCi/g						
Bismuth 212		0.598	+/ 0.319	0.146	+/ 0.319	0.314	pCi/g						
Bismuth 214		0.697	+/ 0.107	0.043	+/ 0.107	0.0909	pCi/g						
Cesium 134	U	0.0579	+/ 0.052	0.0292	+/ 0.052	0.0617	pCi/g						
Cesium 137	U	0.0172	+/ 0.0374	0.0216	+/ 0.0374	0.046	pCi/g						
Cobalt 60	UI	0.00	+/ 0.0381	0.0247	+/ 0.0381	0.054	pCi/g						
Europium 152	U	0.0309	+/ 0.0619	0.0516	+/ 0.0619	0.109	pCi/g						
Europium 154	U	0.0622	+/ 0.0781	0.0591	+/ 0.0781	0.131	pCi/g						
Europium 155	UI	0.00	+/ 0.0962	0.0505	+/ 0.0962	0.105	pCi/g						
Lead 212		0.973	+/ 0.0802	0.0305	+/ 0.0802	0.0635	pCi/g						
Lead 214		0.751	+/ 0.107	0.0357	+/ 0.107	0.0752	pCi/g						
Manganese 54	U	0.0232	+/ 0.0271	0.0202	+/ 0.0271	0.0435	pCi/g						
Niobium 94	U	0.0203	+/ 0.0213	0.019	+/ 0.0213	0.0405	pCi/g						
Potassium 40		16.8	+/ 1.13	0.178	+/ 1.13	0.403	pCi/g						
Radium 226		0.697	+/ 0.107	0.043	+/ 0.107	0.0909	pCi/g						
Silver 108m	U	0.00652	+/ 0.0221	0.0191	+/ 0.0221	0.0403	pCi/g						
Thallium 208		0.323	+/ 0.0495	0.0187	+/ 0.0495	0.040	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 003F
Sample ID: 166653002

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

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 005F	Project:	YANK01204
Sample ID:	166653003	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	26.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.589	+/ 0.248	0.0873	+/ 0.248	0.187	pCi/g		MJH1	07/17/06	1337	546518	1
Americium 241	U	0.0141	+/ 0.0376	0.033	+/ 0.0376	0.0679	pCi/g						
Bismuth 212	U	0.238	+/ 0.281	0.176	+/ 0.281	0.375	pCi/g						
Bismuth 214		0.579	+/ 0.115	0.0459	+/ 0.115	0.097	pCi/g						
Cesium 134	U	0.0344	+/ 0.0457	0.033	+/ 0.0457	0.0696	pCi/g						
Cesium 137		0.119	+/ 0.055	0.0296	+/ 0.055	0.0622	pCi/g						
Cobalt 60	U	0.0225	+/ 0.0326	0.0295	+/ 0.0326	0.0637	pCi/g						
Europium 152	U	0.024	+/ 0.0708	0.0581	+/ 0.0708	0.122	pCi/g						
Europium 154	U	0.0423	+/ 0.0997	0.0801	+/ 0.0997	0.173	pCi/g						
Europium 155	U	0.0421	+/ 0.0609	0.0523	+/ 0.0609	0.108	pCi/g						
Lead 212		0.569	+/ 0.0808	0.0397	+/ 0.0808	0.0819	pCi/g						
Lead 214		0.542	+/ 0.109	0.0432	+/ 0.109	0.0904	pCi/g						
Manganese 54	U	0.00185	+/ 0.0329	0.0271	+/ 0.0329	0.0575	pCi/g						
Niobium 94	U	0.0122	+/ 0.0273	0.0237	+/ 0.0273	0.0501	pCi/g						
Potassium 40		12.8	+/ 1.01	0.240	+/ 1.01	0.526	pCi/g						
Radium 226		0.579	+/ 0.115	0.0459	+/ 0.115	0.097	pCi/g						
Silver 108m	U	0.00535	+/ 0.0237	0.0212	+/ 0.0237	0.0446	pCi/g						
Thallium 208		0.241	+/ 0.0664	0.0236	+/ 0.0664	0.0501	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 005F
Sample ID: 166653003

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

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 006F	Project:	YANK01204
Sample ID:	166653004	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	24.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.845	+/ 0.133	0.0455	+/ 0.133	0.0973	pCi/g		MJH1	07/20/06	1635	546518	1
Americium 241	U	0.0147	+/ 0.0684	0.0555	+/ 0.0684	0.114	pCi/g						
Bismuth 212		0.496	+/ 0.216	0.101	+/ 0.216	0.215	pCi/g						
Bismuth 214		0.481	+/ 0.0706	0.026	+/ 0.0706	0.0548	pCi/g						
Cesium 134	UI	0.00	+/ 0.0273	0.017	+/ 0.0273	0.0358	pCi/g						
Cesium 137		0.0695	+/ 0.026	0.0135	+/ 0.026	0.0286	pCi/g						
Cobalt 60	U	0.00473	+/ 0.0171	0.0146	+/ 0.0171	0.0314	pCi/g						
Europium 152	U	0.0231	+/ 0.0407	0.0347	+/ 0.0407	0.0726	pCi/g						
Europium 154	U	0.032	+/ 0.0491	0.0381	+/ 0.0491	0.0824	pCi/g						
Europium 155	U	0.0486	+/ 0.0554	0.0459	+/ 0.0554	0.0945	pCi/g						
Lead 212		0.787	+/ 0.0548	0.0216	+/ 0.0548	0.0447	pCi/g						
Lead 214		0.573	+/ 0.0742	0.0253	+/ 0.0742	0.053	pCi/g						
Manganese 54	U	0.00317	+/ 0.017	0.0149	+/ 0.017	0.0314	pCi/g						
Niobium 94	U	0.000344	+/ 0.0129	0.0112	+/ 0.0129	0.0239	pCi/g						
Potassium 40		13.9	+/ 0.717	0.0969	+/ 0.717	0.217	pCi/g						
Radium 226		0.481	+/ 0.0706	0.026	+/ 0.0706	0.0548	pCi/g						
Silver 108m	U	0.00014	+/ 0.0139	0.012	+/ 0.0139	0.0252	pCi/g						
Thallium 208		0.266	+/ 0.0353	0.013	+/ 0.0353	0.0274	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 006F Project: YANK01204
Sample ID: 166653004 Client ID: YANK001
Vol. Recv.:

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 013F	Project:	YANK01204
Sample ID:	166653005	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	17.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium 228		0.731	+/ 0.126	0.0485	+/ 0.126	0.104	pCi/g		MJH1 07/17/06	1338	546518	1
Americium 241	U	0.0321	+/ 0.0612	0.0541	+/ 0.0612	0.112	pCi/g					
Bismuth 212		0.408	+/ 0.240	0.102	+/ 0.240	0.218	pCi/g					
Bismuth 214		0.502	+/ 0.0725	0.0272	+/ 0.0725	0.0573	pCi/g					
Cesium 134	UI	0.00	+/ 0.0358	0.0188	+/ 0.0358	0.0396	pCi/g					
Cesium 137	U	0.00793	+/ 0.0173	0.0148	+/ 0.0173	0.0312	pCi/g					
Cobalt 60	U	0.00717	+/ 0.0157	0.0136	+/ 0.0157	0.0297	pCi/g					
Europium 152	U	0.0327	+/ 0.0415	0.0346	+/ 0.0415	0.0726	pCi/g					
Europium 154	U	0.0202	+/ 0.048	0.0414	+/ 0.048	0.0895	pCi/g					
Europium 155	U	0.0652	+/ 0.0541	0.0494	+/ 0.0541	0.102	pCi/g					
Lead 212		0.737	+/ 0.056	0.0233	+/ 0.056	0.0483	pCi/g					
Lead 214		0.617	+/ 0.085	0.0259	+/ 0.085	0.0542	pCi/g					
Manganese 54	U	0.00061	+/ 0.0169	0.0145	+/ 0.0169	0.0308	pCi/g					
Niobium 94	U	0.0072	+/ 0.0153	0.0138	+/ 0.0153	0.029	pCi/g					
Potassium 40		12.1	+/ 0.748	0.112	+/ 0.748	0.248	pCi/g					
Radium 226		0.502	+/ 0.0725	0.0272	+/ 0.0725	0.0573	pCi/g					
Silver 108m	U	0.00735	+/ 0.0136	0.0112	+/ 0.0136	0.0237	pCi/g					
Thallium 208		0.250	+/ 0.0357	0.0147	+/ 0.0357	0.031	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 013F Project: YANK01204
Sample ID: 166653005 Client ID: YANK001
Vol. Recv.:

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 013FS	Project:	YANK01204
Sample ID:	166653006	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	23.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.914	+/ 0.154	0.0583	+/ 0.154	0.127	pCi/g		MJH1	07/17/06	1406	546518	1
Americium 241	U	0.00369	+/ 0.111	0.0896	+/ 0.111	0.186	pCi/g						
Bismuth 212		0.904	+/ 0.303	0.131	+/ 0.303	0.281	pCi/g						
Bismuth 214		0.514	+/ 0.0911	0.0323	+/ 0.0911	0.0689	pCi/g						
Cesium 134	UI	0.00	+/ 0.0359	0.0231	+/ 0.0359	0.0493	pCi/g						
Cesium 137	U	0.0143	+/ 0.020	0.0183	+/ 0.020	0.039	pCi/g						
Cobalt 60	U	0.000551	+/ 0.0209	0.0177	+/ 0.0209	0.0395	pCi/g						
Europium 152	U	0.0339	+/ 0.0521	0.0464	+/ 0.0521	0.0977	pCi/g						
Europium 154	U	0.016	+/ 0.0649	0.0567	+/ 0.0649	0.124	pCi/g						
Europium 155	U	0.0437	+/ 0.0542	0.0523	+/ 0.0542	0.108	pCi/g						
Lead 212		0.845	+/ 0.0636	0.0245	+/ 0.0636	0.0512	pCi/g						
Lead 214		0.641	+/ 0.0961	0.0344	+/ 0.0961	0.0723	pCi/g						
Manganese 54	U	0.00342	+/ 0.0212	0.0175	+/ 0.0212	0.0378	pCi/g						
Niobium 94	U	0.00408	+/ 0.0196	0.0164	+/ 0.0196	0.0351	pCi/g						
Potassium 40		13.6	+/ 0.934	0.168	+/ 0.934	0.376	pCi/g						
Radium 226		0.514	+/ 0.0911	0.0323	+/ 0.0911	0.0689	pCi/g						
Silver 108m	U	0.0144	+/ 0.0164	0.0137	+/ 0.0164	0.0294	pCi/g						
Thallium 208		0.288	+/ 0.0475	0.0183	+/ 0.0475	0.039	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 013FS
Sample ID: 166653006

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

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 007F	Project:	YANK01204
Sample ID:	166653007	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.678	+/ 0.202	0.068	+/ 0.202	0.149	pCi/g		MJH1	07/17/06	1406	546518	1
Americium 241	U	0.0238	+/ 0.100	0.0848	+/ 0.100	0.176	pCi/g						
Bismuth 212		0.364	+/ 0.310	0.165	+/ 0.310	0.354	pCi/g						
Bismuth 214		0.551	+/ 0.117	0.0332	+/ 0.117	0.0716	pCi/g						
Cesium 134	U	0.046	+/ 0.0418	0.0255	+/ 0.0418	0.0547	pCi/g						
Cesium 137		0.0647	+/ 0.0289	0.0192	+/ 0.0289	0.0414	pCi/g						
Cobalt 60	U	0.0193	+/ 0.0246	0.0231	+/ 0.0246	0.0511	pCi/g						
Europium 152	U	0.0482	+/ 0.0652	0.0524	+/ 0.0652	0.111	pCi/g						
Europium 154	U	0.00975	+/ 0.0756	0.0658	+/ 0.0756	0.145	pCi/g						
Europium 155	U	0.0473	+/ 0.0615	0.0582	+/ 0.0615	0.121	pCi/g						
Lead 212		0.755	+/ 0.0733	0.0363	+/ 0.0733	0.0753	pCi/g						
Lead 214		0.607	+/ 0.104	0.039	+/ 0.104	0.0823	pCi/g						
Manganese 54	U	0.00942	+/ 0.0268	0.0208	+/ 0.0268	0.045	pCi/g						
Niobium 94	U	0.000504	+/ 0.0221	0.019	+/ 0.0221	0.0407	pCi/g						
Potassium 40		12.8	+/ 1.10	0.157	+/ 1.10	0.364	pCi/g						
Radium 226		0.551	+/ 0.117	0.0332	+/ 0.117	0.0716	pCi/g						
Silver 108m	U	0.015	+/ 0.0216	0.0168	+/ 0.0216	0.036	pCi/g						
Thallium 208		0.201	+/ 0.0526	0.0205	+/ 0.0526	0.0438	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 007F Project: YANK01204
Sample ID: 166653007 Client ID: YANK001
Vol. Recv.:

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 008F	Project:	YANK01204
Sample ID:	166653008	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	23.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.883	+/ 0.226	0.0724	+/ 0.226	0.145	pCi/g		MJH1	07/17/06	1412	546518	1
Americium 241	U	0.0669	+/ 0.0933	0.0703	+/ 0.0933	0.140	pCi/g						
Bismuth 212		0.502	+/ 0.348	0.165	+/ 0.348	0.330	pCi/g						
Bismuth 214		0.647	+/ 0.115	0.0386	+/ 0.115	0.0771	pCi/g						
Cesium 134	UI	0.00	+/ 0.0456	0.028	+/ 0.0456	0.0559	pCi/g						
Cesium 137	U	0.0307	+/ 0.0326	0.0253	+/ 0.0326	0.0506	pCi/g						
Cobalt 60	U	0.0216	+/ 0.032	0.0283	+/ 0.032	0.0566	pCi/g						
Europium 152	U	0.012	+/ 0.0917	0.0576	+/ 0.0917	0.115	pCi/g						
Europium 154	U	0.000507	+/ 0.084	0.0691	+/ 0.084	0.138	pCi/g						
Europium 155	U	0.0647	+/ 0.0786	0.0596	+/ 0.0786	0.119	pCi/g						
Lead 212		0.812	+/ 0.0986	0.0329	+/ 0.0986	0.0657	pCi/g						
Lead 214		0.568	+/ 0.122	0.0393	+/ 0.122	0.0785	pCi/g						
Manganese 54	U	0.0134	+/ 0.0286	0.0221	+/ 0.0286	0.0441	pCi/g						
Niobium 94	U	0.0255	+/ 0.0243	0.0222	+/ 0.0243	0.0444	pCi/g						
Potassium 40		14.4	+/ 1.34	0.167	+/ 1.34	0.334	pCi/g						
Radium 226		0.647	+/ 0.115	0.0386	+/ 0.115	0.0771	pCi/g						
Silver 108m	U	0.00165	+/ 0.0229	0.0192	+/ 0.0229	0.0384	pCi/g						
Thallium 208		0.170	+/ 0.0546	0.020	+/ 0.0546	0.0401	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 008F Project: YANK01204
Sample ID: 166653008 Client ID: YANK001
Vol. Recv.:

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 012F	Project:	YANK01204
Sample ID:	166653009	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	18.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.703	+/ 0.166	0.0552	+/ 0.166	0.110	pCi/g		MJH1	07/17/06	1413	546518	1
Americium 241	U	0.0189	+/ 0.0803	0.0646	+/ 0.0803	0.129	pCi/g						
Bismuth 212		0.398	+/ 0.276	0.132	+/ 0.276	0.263	pCi/g						
Bismuth 214		0.476	+/ 0.0877	0.0316	+/ 0.0877	0.0632	pCi/g						
Cesium 134	U	0.0295	+/ 0.0174	0.0187	+/ 0.0174	0.0374	pCi/g						
Cesium 137	U	0.0163	+/ 0.0208	0.0188	+/ 0.0208	0.0376	pCi/g						
Cobalt 60	U	0.00835	+/ 0.0223	0.0196	+/ 0.0223	0.0392	pCi/g						
Europium 152	U	0.0141	+/ 0.0587	0.0464	+/ 0.0587	0.0928	pCi/g						
Europium 154	U	0.0624	+/ 0.070	0.0541	+/ 0.070	0.108	pCi/g						
Europium 155	U	0.0596	+/ 0.0607	0.0505	+/ 0.0607	0.101	pCi/g						
Lead 212		0.625	+/ 0.0751	0.0272	+/ 0.0751	0.0545	pCi/g						
Lead 214		0.560	+/ 0.0965	0.0279	+/ 0.0965	0.0557	pCi/g						
Manganese 54	U	0.00791	+/ 0.0192	0.0174	+/ 0.0192	0.0347	pCi/g						
Niobium 94	U	0.00382	+/ 0.0178	0.0154	+/ 0.0178	0.0308	pCi/g						
Potassium 40		12.2	+/ 1.09	0.137	+/ 1.09	0.274	pCi/g						
Radium 226		0.476	+/ 0.0877	0.0316	+/ 0.0877	0.0632	pCi/g						
Silver 108m	U	0.0142	+/ 0.0204	0.0165	+/ 0.0204	0.033	pCi/g						
Thallium 208		0.213	+/ 0.0461	0.0169	+/ 0.0461	0.0337	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 012F
Sample ID: 166653009

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

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 014F	Project:	YANK01204
Sample ID:	166653010	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	17%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.627	+/ 0.194	0.0634	+/ 0.194	0.138	pCi/g		MJH1	07/17/06	1540	546518	1
Americium 241	U	0.0194	+/ 0.0802	0.0749	+/ 0.0802	0.155	pCi/g						
Bismuth 212		0.538	+/ 0.320	0.137	+/ 0.320	0.296	pCi/g						
Bismuth 214		0.449	+/ 0.104	0.0315	+/ 0.104	0.0677	pCi/g						
Cesium 134	U	0.0185	+/ 0.0364	0.0237	+/ 0.0364	0.0506	pCi/g						
Cesium 137		0.137	+/ 0.038	0.0199	+/ 0.038	0.0426	pCi/g						
Cobalt 60	U	0.0248	+/ 0.0236	0.0228	+/ 0.0236	0.050	pCi/g						
Europium 152	U	0.0491	+/ 0.0561	0.0439	+/ 0.0561	0.0931	pCi/g						
Europium 154	U	0.08	+/ 0.0671	0.0489	+/ 0.0671	0.110	pCi/g						
Europium 155	U	0.0244	+/ 0.0534	0.049	+/ 0.0534	0.102	pCi/g						
Lead 212		0.759	+/ 0.0661	0.0274	+/ 0.0661	0.0571	pCi/g						
Lead 214		0.579	+/ 0.0904	0.0317	+/ 0.0904	0.0671	pCi/g						
Manganese 54	U	0.0217	+/ 0.0217	0.0163	+/ 0.0217	0.0357	pCi/g						
Niobium 94	U	0.000218	+/ 0.0195	0.0167	+/ 0.0195	0.0358	pCi/g						
Potassium 40		13.1	+/ 0.977	0.147	+/ 0.977	0.339	pCi/g						
Radium 226		0.449	+/ 0.104	0.0315	+/ 0.104	0.0677	pCi/g						
Silver 108m	U	0.00214	+/ 0.0166	0.0149	+/ 0.0166	0.0317	pCi/g						
Thallium 208		0.278	+/ 0.0464	0.0158	+/ 0.0464	0.0341	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 014F
Sample ID: 166653010

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

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 011F	Project:	YANK01204
Sample ID:	166653011	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	23.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.640	+/ 0.166	0.056	+/ 0.166	0.121	pCi/g		MJH1	07/17/06	1543	546518	1
Americium 241	U	0.0042	+/ 0.0884	0.0739	+/ 0.0884	0.153	pCi/g						
Bismuth 212		0.594	+/ 0.239	0.134	+/ 0.239	0.287	pCi/g						
Bismuth 214		0.494	+/ 0.0801	0.0331	+/ 0.0801	0.0701	pCi/g						
Cesium 134	UI	0.00	+/ 0.0363	0.0239	+/ 0.0363	0.0505	pCi/g						
Cesium 137	U	0.0149	+/ 0.0105	0.0147	+/ 0.0105	0.0317	pCi/g						
Cobalt 60	U	0.00711	+/ 0.025	0.0191	+/ 0.025	0.0418	pCi/g						
Europium 152	U	0.052	+/ 0.0533	0.0442	+/ 0.0533	0.0928	pCi/g						
Europium 154	U	0.0353	+/ 0.0669	0.0601	+/ 0.0669	0.130	pCi/g						
Europium 155	U	0.0405	+/ 0.0552	0.0511	+/ 0.0552	0.106	pCi/g						
Lead 212		0.801	+/ 0.0613	0.0251	+/ 0.0613	0.0523	pCi/g						
Lead 214		0.515	+/ 0.088	0.0311	+/ 0.088	0.0654	pCi/g						
Manganese 54	U	0.0179	+/ 0.0227	0.0205	+/ 0.0227	0.0435	pCi/g						
Niobium 94	U	0.00672	+/ 0.0184	0.0155	+/ 0.0184	0.033	pCi/g						
Potassium 40		12.1	+/ 0.889	0.151	+/ 0.889	0.337	pCi/g						
Radium 226		0.494	+/ 0.0801	0.0331	+/ 0.0801	0.0701	pCi/g						
Silver 108m	U	0.0107	+/ 0.0177	0.0146	+/ 0.0177	0.0309	pCi/g						
Thallium 208		0.191	+/ 0.0419	0.0172	+/ 0.0419	0.0365	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 011F
Sample ID: 166653011

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

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 015F	Project:	YANK01204
Sample ID:	166653012	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	24.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.922	+/ 0.164	0.0549	+/ 0.164	0.117	pCi/g		MJH1	07/17/06	1545	546518	1
Americium 241	U	0.00436	+/ 0.128	0.0938	+/ 0.128	0.193	pCi/g						
Bismuth 212		0.718	+/ 0.289	0.113	+/ 0.289	0.241	pCi/g						
Bismuth 214		0.621	+/ 0.103	0.0294	+/ 0.103	0.0617	pCi/g						
Cesium 134	UI	0.00	+/ 0.0291	0.0211	+/ 0.0291	0.0443	pCi/g						
Cesium 137	U	0.0095	+/ 0.0206	0.0176	+/ 0.0206	0.0369	pCi/g						
Cobalt 60	U	0.00791	+/ 0.0209	0.0179	+/ 0.0209	0.0388	pCi/g						
Europium 152	U	0.030	+/ 0.052	0.0432	+/ 0.052	0.0898	pCi/g						
Europium 154	U	0.0475	+/ 0.082	0.0557	+/ 0.082	0.119	pCi/g						
Europium 155	U	0.0328	+/ 0.053	0.0467	+/ 0.053	0.096	pCi/g						
Lead 212		0.924	+/ 0.0606	0.0261	+/ 0.0606	0.0538	pCi/g						
Lead 214		0.725	+/ 0.0798	0.0292	+/ 0.0798	0.0609	pCi/g						
Manganese 54	U	0.0177	+/ 0.0202	0.019	+/ 0.0202	0.0399	pCi/g						
Niobium 94	U	0.0017	+/ 0.0193	0.016	+/ 0.0193	0.0336	pCi/g						
Potassium 40		15.8	+/ 0.891	0.147	+/ 0.891	0.323	pCi/g						
Radium 226		0.621	+/ 0.103	0.0294	+/ 0.103	0.0617	pCi/g						
Silver 108m	U	0.00911	+/ 0.0164	0.0144	+/ 0.0164	0.030	pCi/g						
Thallium 208		0.306	+/ 0.0487	0.015	+/ 0.0487	0.0317	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 015F Project: YANK01204
Sample ID: 166653012 Client ID: YANK001
Vol. Recv.:

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 009F	Project:	YANK01204
Sample ID:	166653013	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	22.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.542	+/ 0.178	0.0721	+/ 0.178	0.156	pCi/g		MJH1	07/17/06	1546	546518	1
Americium 241	U	0.0169	+/ 0.0283	0.0267	+/ 0.0283	0.055	pCi/g						
Bismuth 212		0.310	+/ 0.312	0.133	+/ 0.312	0.288	pCi/g						
Bismuth 214		0.427	+/ 0.098	0.0377	+/ 0.098	0.080	pCi/g						
Cesium 134	UI	0.00	+/ 0.0384	0.0237	+/ 0.0384	0.0507	pCi/g						
Cesium 137	U	0.00593	+/ 0.0223	0.0192	+/ 0.0223	0.0412	pCi/g						
Cobalt 60	U	0.0155	+/ 0.0199	0.0143	+/ 0.0199	0.033	pCi/g						
Europium 152	U	0.00692	+/ 0.0522	0.046	+/ 0.0522	0.0971	pCi/g						
Europium 154	U	0.0211	+/ 0.0774	0.0669	+/ 0.0774	0.146	pCi/g						
Europium 155	U	0.0665	+/ 0.0521	0.0487	+/ 0.0521	0.101	pCi/g						
Lead 212		0.724	+/ 0.101	0.0275	+/ 0.101	0.0572	pCi/g						
Lead 214		0.474	+/ 0.0949	0.0353	+/ 0.0949	0.0743	pCi/g						
Manganese 54	U	0.00389	+/ 0.0229	0.0203	+/ 0.0229	0.0436	pCi/g						
Niobium 94	U	0.0152	+/ 0.0233	0.0184	+/ 0.0233	0.0393	pCi/g						
Potassium 40		11.7	+/ 1.17	0.146	+/ 1.17	0.337	pCi/g						
Radium 226		0.427	+/ 0.098	0.0377	+/ 0.098	0.080	pCi/g						
Silver 108m	U	0.00395	+/ 0.0184	0.0158	+/ 0.0184	0.0336	pCi/g						
Thallium 208		0.231	+/ 0.0498	0.0181	+/ 0.0498	0.0389	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 009F
Sample ID: 166653013

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

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 009FS	Project:	YANK01204
Sample ID:	166653014	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.601	+/ 0.153	0.0578	+/ 0.153	0.125	pCi/g		MJH1	07/17/06	1547	546518	1
Americium 241	U	0.0658	+/ 0.077	0.0688	+/ 0.077	0.143	pCi/g						
Bismuth 212		0.328	+/ 0.258	0.114	+/ 0.258	0.247	pCi/g						
Bismuth 214		0.389	+/ 0.0852	0.031	+/ 0.0852	0.0662	pCi/g						
Cesium 134	U	0.0352	+/ 0.0355	0.0225	+/ 0.0355	0.0478	pCi/g						
Cesium 137	U	0.024	+/ 0.0275	0.0169	+/ 0.0275	0.0362	pCi/g						
Cobalt 60	U	0.0184	+/ 0.0223	0.0205	+/ 0.0223	0.0447	pCi/g						
Europium 152	U	0.0168	+/ 0.0474	0.0413	+/ 0.0474	0.0872	pCi/g						
Europium 154	U	0.0752	+/ 0.0634	0.0453	+/ 0.0634	0.101	pCi/g						
Europium 155	U	0.00909	+/ 0.0541	0.049	+/ 0.0541	0.102	pCi/g						
Lead 212		0.510	+/ 0.0726	0.0319	+/ 0.0726	0.066	pCi/g						
Lead 214		0.469	+/ 0.078	0.0285	+/ 0.078	0.0603	pCi/g						
Manganese 54	U	0.000472	+/ 0.019	0.0166	+/ 0.019	0.0358	pCi/g						
Niobium 94	U	0.00816	+/ 0.0181	0.0158	+/ 0.0181	0.0337	pCi/g						
Potassium 40		11.4	+/ 0.813	0.149	+/ 0.813	0.335	pCi/g						
Radium 226		0.389	+/ 0.0852	0.031	+/ 0.0852	0.0662	pCi/g						
Silver 108m	U	0.00722	+/ 0.0162	0.0131	+/ 0.0162	0.0279	pCi/g						
Thallium 208		0.229	+/ 0.0504	0.0149	+/ 0.0504	0.0319	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 009FS
Sample ID: 166653014

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

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 001F	Project:	YANK01204
Sample ID:	166653015	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	28.2%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.783	+/ 0.185	0.0642	+/ 0.185	0.137	pCi/g		MJH1	07/17/06	1548	546518	1
Americium 241	U	0.0635	+/ 0.122	0.0922	+/ 0.122	0.190	pCi/g						
Bismuth 212		0.567	+/ 0.320	0.145	+/ 0.320	0.307	pCi/g						
Bismuth 214		0.672	+/ 0.119	0.0323	+/ 0.119	0.0681	pCi/g						
Cesium 134	U	0.029	+/ 0.030	0.0222	+/ 0.030	0.0469	pCi/g						
Cesium 137	U	0.0225	+/ 0.0291	0.0177	+/ 0.0291	0.0375	pCi/g						
Cobalt 60	U	0.0121	+/ 0.0245	0.0187	+/ 0.0245	0.0407	pCi/g						
Europium 152	U	0.0233	+/ 0.0522	0.0455	+/ 0.0522	0.0948	pCi/g						
Europium 154	U	0.0335	+/ 0.0741	0.0582	+/ 0.0741	0.125	pCi/g						
Europium 155	UI	0.00	+/ 0.084	0.0464	+/ 0.084	0.0958	pCi/g						
Lead 212		0.826	+/ 0.0914	0.0256	+/ 0.0914	0.053	pCi/g						
Lead 214		0.684	+/ 0.106	0.0315	+/ 0.106	0.0658	pCi/g						
Manganese 54	U	0.0109	+/ 0.0214	0.0188	+/ 0.0214	0.0398	pCi/g						
Niobium 94	U	0.00252	+/ 0.0194	0.0156	+/ 0.0194	0.0331	pCi/g						
Potassium 40		13.7	+/ 1.29	0.180	+/ 1.29	0.394	pCi/g						
Radium 226		0.672	+/ 0.119	0.0323	+/ 0.119	0.0681	pCi/g						
Silver 108m	U	0.00923	+/ 0.0177	0.0144	+/ 0.0177	0.0304	pCi/g						
Thallium 208		0.266	+/ 0.0579	0.0168	+/ 0.0579	0.0356	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

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

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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 001F
Sample ID: 166653015

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

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

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 004F	Project:	YANK01204
Sample ID:	166653016	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Alpha Spec Analysis												
Alphaspec Am241, Cm, Solid ALL FSS												
Americium 241	U	0.0153	+/ 0.0503	0.00	+/ 0.0503	0.117	pCi/g		LCW1	07/13/06	1320 546536	1
Curium 242	U	0.0113	+/ 0.0221	0.0537	+/ 0.0222	0.235	pCi/g					
Curium 243/244	U	0.162	+/ 0.171	0.0493	+/ 0.172	0.216	pCi/g					
Alphaspec Pu, Solid ALL FSS												
Plutonium 238	U	0.00709	+/ 0.0595	0.0337	+/ 0.0596	0.147	pCi/g		LCW1	07/12/06	1816 546537	2
Plutonium 239/240	U	0.00827	+/ 0.0627	0.0583	+/ 0.0627	0.196	pCi/g					
Liquid Scint Pu241, Solid ALL FSS												
Plutonium 241	U	6.9	+/ 7.37	6.49	+/ 7.40	13.5	pCi/g		LCW1	07/17/06	0848 546538	3
Rad Gamma Spec Analysis												
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium 228		0.627	+/ 0.147	0.0658	+/ 0.147	0.142	pCi/g		MJH1	07/17/06	1549 546518	4
Americium 241	U	0.0653	+/ 0.134	0.0759	+/ 0.134	0.157	pCi/g					
Bismuth 212		0.457	+/ 0.237	0.138	+/ 0.237	0.296	pCi/g					
Bismuth 214		0.428	+/ 0.0788	0.0362	+/ 0.0788	0.0766	pCi/g					
Cesium 134	U	0.0103	+/ 0.0225	0.020	+/ 0.0225	0.0431	pCi/g					
Cesium 137	U	0.0187	+/ 0.0228	0.0209	+/ 0.0228	0.0443	pCi/g					
Cobalt 60	U	0.0178	+/ 0.025	0.0224	+/ 0.025	0.0487	pCi/g					
Europium 152	U	0.00683	+/ 0.055	0.0465	+/ 0.055	0.0979	pCi/g					
Europium 154	U	0.00189	+/ 0.0666	0.0549	+/ 0.0666	0.121	pCi/g					
Europium 155	U	0.0255	+/ 0.0581	0.0515	+/ 0.0581	0.107	pCi/g					
Lead 212		0.644	+/ 0.0581	0.0283	+/ 0.0581	0.0589	pCi/g					
Lead 214		0.508	+/ 0.0795	0.0364	+/ 0.0795	0.0764	pCi/g					
Manganese 54	U	0.0172	+/ 0.0221	0.0201	+/ 0.0221	0.0429	pCi/g					
Niobium 94	U	0.0144	+/ 0.0185	0.017	+/ 0.0185	0.0362	pCi/g					
Potassium 40		11.3	+/ 0.920	0.158	+/ 0.920	0.355	pCi/g					
Radium 226		0.428	+/ 0.0788	0.0362	+/ 0.0788	0.0766	pCi/g					
Silver 108m	U	0.00786	+/ 0.0194	0.0168	+/ 0.0194	0.0354	pCi/g					
Thallium 208		0.199	+/ 0.0472	0.0177	+/ 0.0472	0.0378	pCi/g					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, solid ALL FSS												
Strontium 90	U	0.00399	+/ 0.0104	0.00893	+/ 0.0104	0.0186	pCi/g		BXF1	07/14/06	2255 547395	5
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid HTD2,ALL FSS												
Tritium	U	2.95	+/ 6.82	5.55	+/ 6.82	11.8	pCi/g		NXP1	07/15/06	0852 546579	6

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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 21, 2006

Client Sample ID: 9106 0012 004F
Sample ID: 166653016

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													
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0349	+/ 0.108	0.0914	+/ 0.108	0.186	pCi/g		ATH2	07/21/06	1155	549860	7
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	0.861	+/ 13.0	10.1	+/ 13.0	21.0	pCi/g		SLN1	07/15/06	1152	546577	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	0.304	+/ 4.43	3.71	+/ 4.43	7.60	pCi/g		SLN1	07/19/06	1707	546578	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.224	+/ 0.274	0.224	+/ 0.274	0.460	pCi/g		EGD1	07/19/06	0522	546461	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL RAD A 021B	JMB1	07/10/06	0724	546299
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

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	74	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	78	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	97	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	62	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	90	(15% 125%)

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Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 004F
Sample ID: 166653016

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 Ni63, Solid	ALL FS		90		(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
Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 010F	Project:	YANK01204
Sample ID:	166653017	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	23.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241	U	0.00354	+/ 0.0209	0.00	+/ 0.0209	0.087	pCi/g		LCW1	07/13/06	1320	546536	1
Curium 242	U	0.035	+/ 0.0687	0.00	+/ 0.0688	0.095	pCi/g						
Curium 243/244	U	0.00772	+/ 0.0151	0.0367	+/ 0.0152	0.160	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.110	+/ 0.115	0.0332	+/ 0.116	0.145	pCi/g		LCW1	07/12/06	1816	546537	2
Plutonium 239/240	U	0.021	+/ 0.0619	0.0576	+/ 0.0619	0.194	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	3.34	+/ 8.93	7.63	+/ 8.93	15.9	pCi/g		LCW1	07/17/06	0904	546538	3
Rad Gamma Spec Analysis													
Gamma,Solid FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium 228		0.652	+/ 0.111	0.0244	+/ 0.111	0.0506	pCi/g		MJH1	07/17/06	1550	546518	4
Americium 241	U	0.0137	+/ 0.0539	0.0504	+/ 0.0539	0.103	pCi/g						
Bismuth 212		0.533	+/ 0.139	0.0559	+/ 0.139	0.115	pCi/g						
Bismuth 214		0.481	+/ 0.0598	0.0132	+/ 0.0598	0.0271	pCi/g						
Cesium 134	UI	0.00	+/ 0.0145	0.00983	+/ 0.0145	0.0202	pCi/g						
Cesium 137		0.0323	+/ 0.0184	0.00767	+/ 0.0184	0.0158	pCi/g						
Cobalt 60	U	0.0105	+/ 0.00943	0.0084	+/ 0.00943	0.0175	pCi/g						
Europium 152	U	0.0297	+/ 0.0242	0.0194	+/ 0.0242	0.0397	pCi/g						
Europium 154	U	0.00579	+/ 0.0281	0.0235	+/ 0.0281	0.0489	pCi/g						
Europium 155	UI	0.00	+/ 0.0355	0.0221	+/ 0.0355	0.0448	pCi/g						
Lead 212		0.706	+/ 0.0728	0.0116	+/ 0.0728	0.0236	pCi/g						
Lead 214		0.543	+/ 0.0667	0.0141	+/ 0.0667	0.0288	pCi/g						
Manganese 54	UI	0.00	+/ 0.010	0.00707	+/ 0.010	0.0146	pCi/g						
Niobium 94	U	0.000256	+/ 0.00824	0.00699	+/ 0.00824	0.0144	pCi/g						
Potassium 40		11.7	+/ 0.872	0.070	+/ 0.872	0.147	pCi/g						
Radium 226		0.481	+/ 0.0598	0.0132	+/ 0.0598	0.0271	pCi/g						
Silver 108m	U	0.0059	+/ 0.00775	0.00699	+/ 0.00775	0.0143	pCi/g						
Thallium 208		0.192	+/ 0.0258	0.00752	+/ 0.0258	0.0155	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.0077	+/ 0.0104	0.00836	+/ 0.0104	0.0175	pCi/g		BXF1	07/14/06	2255	547395	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	7.54	+/ 8.66	6.83	+/ 8.66	14.5	pCi/g		NXP1	07/15/06	0908	546579	6

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Certificate of Analysis

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Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 010F
Sample ID: 166653017
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													
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.108	+/ 0.112	0.0952	+/ 0.112	0.193	pCi/g		ATH2	07/21/06	1313	549860	7
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	7.72	+/ 13.5	10.3	+/ 13.6	21.4	pCi/g		SLN1	07/15/06	1224	546577	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	3.42	+/ 4.72	3.88	+/ 4.72	7.95	pCi/g		SLN1	07/19/06	1810	546578	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.318	+/ 0.285	0.231	+/ 0.285	0.474	pCi/g		EGD1	07/19/06	0538	546461	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL RAD A 021B	JMB1	07/10/06	0724	546299
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

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	86	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	80	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	79	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	60	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	88	(15% 125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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Report Date: July 21, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 010F
Sample ID: 166653017

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 Ni63, Solid	ALL FS		86		(25% 125%)					
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid	ALL FS		75		(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.

QUALITY CONTROL DATA

QC Summary

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut
Contact: Mr. Jack McCarthy

Workorder: 166653

Report Date: July 21, 2006

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 546536										
QC1201131829 166653016 DUP										
Americium-241	U	0.0153	U	0.0362	pCi/g	81		(0% - 100%)	LCW1	07/13/06 13:20
	Uncert:	+/-0.0503		+/-0.0809						
	TPU:	+/-0.0503		+/-0.0811						
Curium-242	U	-0.0113	U	0.0395	pCi/g	360		(0% - 100%)		
	Uncert:	+/-0.0221		+/-0.0775						
	TPU:	+/-0.0222		+/-0.0777						
Curium-243/244	U	0.162	U	0.0639	pCi/g	87		(0% - 100%)		
	Uncert:	+/-0.171		+/-0.102						
	TPU:	+/-0.172		+/-0.102						
QC1201131831 LCS										
Americium-241	12.5			14.1	pCi/g		113	(75%-125%)		
	Uncert:			+/-1.45						
	TPU:			+/-2.48						
Curium-242			U	0.0391	pCi/g					
	Uncert:			+/-0.0766						
	TPU:			+/-0.0768						
Curium-243/244	15.2			17.1	pCi/g		113	(75%-125%)		
	Uncert:			+/-1.59						
	TPU:			+/-2.92						
QC1201131828 MB										
Americium-241			U	-0.0357	pCi/g					
	Uncert:			+/-0.0696						
	TPU:			+/-0.0697						
Curium-242			U	0.00	pCi/g					
	Uncert:			+/-0.0684						
	TPU:			+/-0.0684						
Curium-243/244			U	0.0179	pCi/g					
	Uncert:			+/-0.0714						
	TPU:			+/-0.0715						
QC1201131830 166653016 MS										
Americium-241	12.5 U	0.0153		13.8	pCi/g		110	(75%-125%)		
	Uncert:	+/-0.0503		+/-1.27						
	TPU:	+/-0.0503		+/-2.26						
Curium-242	U	-0.0113	U	0.0665	pCi/g					
	Uncert:	+/-0.0221		+/-0.0922						
	TPU:	+/-0.0222		+/-0.0926						
Curium-243/244	15.3 U	0.162		15.1	pCi/g		99	(75%-125%)		
	Uncert:	+/-0.171		+/-1.33						
	TPU:	+/-0.172		+/-2.45						
Batch 546537										
QC1201131833 166653016 DUP										
Plutonium-238	U	-0.00709	U	0.0264	pCi/g	347		(0% - 100%)	LCW1	07/12/06 18:16

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 546537										
	Uncert:	+/-0.0595		+/-0.0518						
	TPU:	+/-0.0596		+/-0.0519						
Plutonium-239/240	U	0.00827	U	-0.0127	pCi/g	947		(0% - 100%)		
	Uncert:	+/-0.0627		+/-0.0547						
	TPU:	+/-0.0627		+/-0.0547						
QC1201131835 LCS										
Plutonium-238			U	0.0732	pCi/g			(75%-125%)		07/12/06 18:16
	Uncert:			+/-0.0971						
	TPU:			+/-0.0974						
Plutonium-239/240	11.6			10.1	pCi/g		87	(75%-125%)		
	Uncert:			+/-0.969						
	TPU:			+/-1.48						
QC1201131832 MB										
Plutonium-238			U	0.0104	pCi/g					07/12/06 18:20
	Uncert:			+/-0.0984						
	TPU:			+/-0.0984						
Plutonium-239/240			U	-0.132	pCi/g					
	Uncert:			+/-0.0893						
	TPU:			+/-0.0899						
QC1201131834 166653016 MS										
Plutonium-238	U	-0.00709	U	0.0605	pCi/g			(75%-125%)		07/12/06 18:16
	Uncert:	+/-0.0595		+/-0.137						
	TPU:	+/-0.0596		+/-0.137						
Plutonium-239/240	11.6 U	0.00827		12.7	pCi/g		109	(75%-125%)		
	Uncert:	+/-0.0627		+/-1.52						
	TPU:	+/-0.0627		+/-2.26						
Batch 546538										
QC1201131837 166653016 DUP										
Plutonium-241	U	-6.9	U	-6.19	pCi/g	0		(0% - 100%)	LCW1	07/17/06 09:37
	Uncert:	+/-7.37		+/-9.13						
	TPU:	+/-7.40		+/-9.15						
QC1201131839 LCS										
Plutonium-241	135			116	pCi/g		87	(75%-125%)		07/17/06 10:09
	Uncert:			+/-15.0						
	TPU:			+/-19.3						
QC1201131836 MB										
Plutonium-241			U	-0.679	pCi/g					07/17/06 09:20
	Uncert:			+/-8.57						
	TPU:			+/-8.57						
QC1201131838 166653016 MS										
Plutonium-241	139 U	-6.9		109	pCi/g		79	(75%-125%)		07/17/06 09:53
	Uncert:	+/-7.37		+/-13.5						
	TPU:	+/-7.40		+/-17.3						
Rad Gamma Spec										
Batch 546518										
QC1201131793 166653001 DUP										
Actinium-228		0.971		0.913	pCi/g	6		(0% - 100%)	MJH1	07/17/06 16:46
	Uncert:	+/-0.202		+/-0.315						
				+/-0.315						

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 546518											
	TPU:	+/-0.202									
Americium-241	U	0.0707	U	0.0337	pCi/g	71		(0% - 100%)			
	Uncert:	+/-0.117		+/-0.0494							
	TPU:	+/-0.117		+/-0.0494							
Bismuth-212	U	0.307	U	0.531	pCi/g	53		(0% - 100%)			
	Uncert:	+/-0.392		+/-0.484							
	TPU:	+/-0.392		+/-0.484							
Bismuth-214		0.631		0.735	pCi/g	15		(0% - 100%)			
	Uncert:	+/-0.126		+/-0.157							
	TPU:	+/-0.126		+/-0.157							
Cesium-134	U	0.0426	U	0.0732	pCi/g	53		(0% - 100%)			
	Uncert:	+/-0.0359		+/-0.0578							
	TPU:	+/-0.0359		+/-0.0578							
Cesium-137	U	0.0439	U	0.0221	pCi/g	66		(0% - 100%)			
	Uncert:	+/-0.0616		+/-0.0418							
	TPU:	+/-0.0616		+/-0.0418							
Cobalt-60	U	0.0286	U	0.0283	pCi/g	1		(0% - 100%)			
	Uncert:	+/-0.0261		+/-0.0482							
	TPU:	+/-0.0261		+/-0.0482							
Europium-152	U	-0.0378	U	0.0108	pCi/g	360		(0% - 100%)			
	Uncert:	+/-0.0689		+/-0.0967							
	TPU:	+/-0.0689		+/-0.0967							
Europium-154	U	-0.022	U	0.193	pCi/g	252		(0% - 100%)			
	Uncert:	+/-0.0982		+/-0.185							
	TPU:	+/-0.0982		+/-0.185							
Europium-155	UI	0.00	UI	0.00	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.0859		+/-0.122							
	TPU:	+/-0.0859		+/-0.122							
Lead-212		1.02		0.874	pCi/g	16		(0% - 20%)			
	Uncert:	+/-0.0786		+/-0.119							
	TPU:	+/-0.0786		+/-0.119							
Lead-214		0.815		0.826	pCi/g	1		(0% - 20%)			
	Uncert:	+/-0.125		+/-0.149							
	TPU:	+/-0.125		+/-0.149							
Manganese-54	U	0.00801	U	-0.0115	pCi/g	1120		(0% - 100%)			
	Uncert:	+/-0.0284		+/-0.0388							
	TPU:	+/-0.0284		+/-0.0388							
Niobium-94	U	-0.0167	U	-0.00246	pCi/g	149		(0% - 100%)			
	Uncert:	+/-0.025		+/-0.037							
	TPU:	+/-0.025		+/-0.037							
Potassium-40		14.3		15.5	pCi/g	8		(0% - 20%)			
	Uncert:	+/-1.18		+/-1.49							
	TPU:	+/-1.18		+/-1.49							
Radium-226		0.631		0.735	pCi/g	15		(0% - 100%)			
	Uncert:	+/-0.126		+/-0.157							
	TPU:	+/-0.126		+/-0.157							
Silver-108m	U	-0.011	U	-0.00824	pCi/g	28		(0% - 100%)			
	Uncert:	+/-0.0233		+/-0.0305							

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 546518										
	TPU:	+/-0.0233		+/-0.0305						
Thallium-208		0.279		0.273	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.0573		+/-0.0779						
	TPU:	+/-0.0573		+/-0.0779						
QC1201131794 LCS										
Actinium-228			U	0.00498	pCi/g					07/17/06 16:54
	Uncert:			+/-0.551						
	TPU:			+/-0.551						
Americium-241	23.4			24.3	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.595						
	TPU:			+/-0.595						
Bismuth-212			U	0.267	pCi/g					
	Uncert:			+/-1.01						
	TPU:			+/-1.01						
Bismuth-214			U	0.206	pCi/g					
	Uncert:			+/-0.228						
	TPU:			+/-0.228						
Cesium-134			U	0.0595	pCi/g					
	Uncert:			+/-0.144						
	TPU:			+/-0.144						
Cesium-137	9.61			10.5	pCi/g		109	(75%-125%)		
	Uncert:			+/-0.534						
	TPU:			+/-0.534						
Cobalt-60	14.8			15.4	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.657						
	TPU:			+/-0.657						
Europium-152			U	-0.0334	pCi/g					
	Uncert:			+/-0.268						
	TPU:			+/-0.268						
Europium-154			U	0.228	pCi/g					
	Uncert:			+/-0.268						
	TPU:			+/-0.268						
Europium-155			U	0.310	pCi/g					
	Uncert:			+/-0.274						
	TPU:			+/-0.274						
Lead-212			U	0.137	pCi/g					
	Uncert:			+/-0.143						
	TPU:			+/-0.143						
Lead-214			U	-0.045	pCi/g					
	Uncert:			+/-0.218						
	TPU:			+/-0.218						
Manganese-54			U	-0.024	pCi/g					
	Uncert:			+/-0.145						
	TPU:			+/-0.145						
Niobium-94			U	-0.0716	pCi/g					
	Uncert:			+/-0.128						
	TPU:			+/-0.128						
Potassium-40			U	0.721	pCi/g					

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 546518											
	Uncert:			+/-1.28							
	TPU:			+/-1.28							
Radium-226			U	0.206	pCi/g			(75%-125%)			
	Uncert:			+/-0.228							
	TPU:			+/-0.228							
Silver-108m			U	-0.043	pCi/g						
	Uncert:			+/-0.102							
	TPU:			+/-0.102							
Thallium-208			U	0.075	pCi/g						
	Uncert:			+/-0.118							
	TPU:			+/-0.118							
QC1201131792 MB											
Actinium-228			U	0.0476	pCi/g					07/17/06	15:52
	Uncert:			+/-0.0627							
	TPU:			+/-0.0627							
Americium-241			U	0.0132	pCi/g						
	Uncert:			+/-0.0215							
	TPU:			+/-0.0215							
Bismuth-212			U	0.0517	pCi/g						
	Uncert:			+/-0.137							
	TPU:			+/-0.137							
Bismuth-214			U	0.00363	pCi/g						
	Uncert:			+/-0.0521							
	TPU:			+/-0.0521							
Cesium-134			U	0.0106	pCi/g						
	Uncert:			+/-0.0183							
	TPU:			+/-0.0183							
Cesium-137			U	0.00159	pCi/g						
	Uncert:			+/-0.0213							
	TPU:			+/-0.0213							
Cobalt-60			U	0.008	pCi/g						
	Uncert:			+/-0.0184							
	TPU:			+/-0.0184							
Europium-152			U	0.0146	pCi/g						
	Uncert:			+/-0.0402							
	TPU:			+/-0.0402							
Europium-154			U	0.052	pCi/g						
	Uncert:			+/-0.078							
	TPU:			+/-0.078							
Europium-155			U	-0.00573	pCi/g						
	Uncert:			+/-0.0357							
	TPU:			+/-0.0357							
Lead-212			U	0.0155	pCi/g						
	Uncert:			+/-0.0243							
	TPU:			+/-0.0243							
Lead-214			U	0.0239	pCi/g						
	Uncert:			+/-0.0306							
	TPU:			+/-0.0306							

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 546518										
Manganese-54			U	0.00838	pCi/g					
	Uncert:			+/-0.0213						
	TPU:			+/-0.0213						
Niobium-94			U	0.00672	pCi/g					
	Uncert:			+/-0.0175						
	TPU:			+/-0.0175						
Potassium-40			U	-0.0352	pCi/g					
	Uncert:			+/-0.182						
	TPU:			+/-0.182						
Radium-226			U	0.00363	pCi/g					
	Uncert:			+/-0.0521						
	TPU:			+/-0.0521						
Silver-108m			U	-0.00243	pCi/g					
	Uncert:			+/-0.0141						
	TPU:			+/-0.0141						
Thallium-208			U	0.0203	pCi/g					
	Uncert:			+/-0.0189						
	TPU:			+/-0.0189						
Rad Gas Flow										
Batch 547395										
QC1201133605 166653016 DUP										
Strontium-90	U	-0.00399	U	-0.00417	pCi/g	0		(0% - 100%)	BXF1	07/14/06 22:56
	Uncert:	+/-0.0104		+/-0.00812						
	TPU:	+/-0.0104		+/-0.00812						
QC1201133607 LCS										
Strontium-90	1.50			1.45	pCi/g		97	(75%-125%)		07/14/06 22:56
	Uncert:			+/-0.104						
	TPU:			+/-0.110						
QC1201133604 MB										
Strontium-90			U	-0.00607	pCi/g					07/14/06 22:56
	Uncert:			+/-0.0062						
	TPU:			+/-0.0062						
QC1201133606 166653016 MS										
Strontium-90	1.52 U	-0.00399		1.24	pCi/g		81	(75%-125%)		07/14/06 22:55
	Uncert:	+/-0.0104		+/-0.0934						
	TPU:	+/-0.0104		+/-0.0986						
Rad Liquid Scintillation										
Batch 546461										
QC1201131630 166653016 DUP										
Technetium-99	U	0.224	U	0.213	pCi/g	5		(0% - 100%)	EGD1	07/19/06 06:10
	Uncert:	+/-0.274		+/-0.296						
	TPU:	+/-0.274		+/-0.296						
QC1201131632 LCS										
Technetium-99	12.9			12.3	pCi/g		95	(75%-125%)		07/19/06 06:43
	Uncert:			+/-0.492						
	TPU:			+/-0.567						
QC1201131629 MB										
Technetium-99			U	0.248	pCi/g					07/19/06 05:54

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 546461										
	Uncert:			+/-0.244						
	TPU:			+/-0.244						
QC1201131631 166653016 MS										
Technetium-99	12.9 U	0.224		15.5	pCi/g		120	(75%-125%)		07/19/06 06:27
	Uncert:	+/-0.274		+/-0.591						
	TPU:	+/-0.274		+/-0.690						
Batch 546577										
QC1201131923 166653016 DUP										
Iron-55	U	-0.861	U	2.22	pCi/g	0		(0% - 100%)	SLN1	07/15/06 13:27
	Uncert:	+/-13.0		+/-13.6						
	TPU:	+/-13.0		+/-13.6						
QC1201131925 LCS										
Iron-55	635			590	pCi/g		93	(75%-125%)		07/15/06 14:30
	Uncert:			+/-39.1						
	TPU:			+/-79.2						
QC1201131922 MB										
Iron-55			U	12.1	pCi/g					07/15/06 12:55
	Uncert:			+/-22.1						
	TPU:			+/-22.1						
QC1201131924 166653016 MS										
Iron-55	661 U	-0.861		661	pCi/g		100	(75%-125%)		07/15/06 13:59
	Uncert:	+/-13.0		+/-30.4						
	TPU:	+/-13.0		+/-78.2						
Batch 546578										
QC1201131927 166653016 DUP										
Nickel-63	U	0.304	U	2.04	pCi/g	0		(0% - 100%)	SLN1	07/19/06 20:14
	Uncert:	+/-4.43		+/-4.71						
	TPU:	+/-4.43		+/-4.71						
QC1201131929 LCS										
Nickel-63	594			494	pCi/g		83	(75%-125%)		07/19/06 22:19
	Uncert:			+/-11.6						
	TPU:			+/-20.3						
QC1201131926 MB										
Nickel-63			U	5.05	pCi/g					07/19/06 19:12
	Uncert:			+/-5.47						
	TPU:			+/-5.48						
QC1201131928 166653016 MS										
Nickel-63	592 U	0.304		503	pCi/g		85	(75%-125%)		07/19/06 21:16
	Uncert:	+/-4.43		+/-12.4						
	TPU:	+/-4.43		+/-21.0						
Batch 546579										
QC1201131931 166653016 DUP										
Tritium	U	2.95	U	2.25	pCi/g	0		(0% - 100%)	NXP1	07/15/06 09:41
	Uncert:	+/-6.82		+/-6.89						
	TPU:	+/-6.82		+/-6.89						
QC1201131933 LCS										
Tritium	48.8			41.3	pCi/g		85	(75%-125%)		07/15/06 10:13
	Uncert:			+/-9.00						
	TPU:			+/-9.03						

QC Summary

Workorder: 166653

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 546579										
QC1201131930 MB										
Tritium			U	1.69	pCi/g					07/15/06 09:24
	Uncert:			+/-6.70						
	TPU:			+/-6.70						
QC1201131932 166653016 MS										
Tritium	58.8 U	2.95		52.4	pCi/g		89	(75%-125%)		07/15/06 09:57
	Uncert:	+/-6.82		+/-10.9						
	TPU:	+/-6.82		+/-11.0						
Batch 549860										
QC1201139570 166653017 DUP										
Carbon-14	U	-0.108	U	-0.122	pCi/g	0		(0% - 100%)	ATH2	07/21/06 17:05
	Uncert:	+/-0.112		+/-0.114						
	TPU:	+/-0.112		+/-0.114						
QC1201139572 LCS										
Carbon-14	7.27			6.12	pCi/g		84	(75%-125%)		07/21/06 15:40
	Uncert:			+/-0.400						
	TPU:			+/-0.411						
QC1201139569 MB										
Carbon-14			U	-0.163	pCi/g					07/21/06 15:57
	Uncert:			+/-0.113						
	TPU:			+/-0.113						
QC1201139571 166653017 MS										
Carbon-14	15.1 U	-0.108		13.1	pCi/g		87	(75%-125%)		07/21/06 15:23
	Uncert:	+/-0.112		+/-0.834						
	TPU:	+/-0.112		+/-0.859						

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

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

QC Summary

Workorder: 166653

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

^

h Preparation or preservation holding time was exceeded

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

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

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil
PO# 002332
Work Order: 170683
SDG: 170683

September 6, 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 August 17, 2006, July 07, 2006, July 13, 2006, July 21, 2006 and June 21, 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):

Sample ID	Client Sample ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683004	9106-0013-006F
170683005	9106-0013-005F
170683006	9106-0014-012F
170683007	9106-0014-033F
170683008	9106-0015-018F

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

170683009	9106-0015-002F
170683010	9106-0001-132F

Items of Note:

At the request of Dale Randall on August 31, 2006, the samples listed above were relogged for various analyses. A list of Sample ID's and requested tests follows.

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:

Ten soil samples were analyzed for various analyses included in the FSSALL suite.

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

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

Analysis request - 8/31/06

		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
165614006	9106-0011-018F	x		x	X	X	X	X	X		X	X	X
166653003	9106-0012-005F	x			X	X	X	X	X	X	X	X	X
166653010	9106-0012-014F	x			X	X	X	X	X	X	X	X	X
167555007	9106-0013-005F	x			X	X	X	X	X	X	X	X	X
167555001	9106-0013-006F	x			X	X	X	X	X	X	X	X	X
167014026	9106-0014-012F	x			X	X	X	X	X	X	X	X	X
167014042	9106-0014-033F	x			X	X	X	X	X	X	X	X	X
167556010	9106-0015-002F	x	x		X	X		X	X	X	X	X	X
167556007	9106-0015-018F	x	x		X	X		X	X	X	X	X	X
169489001	9106-0001-132F	x			X	X	X	X	X	X	X	X	X

RELOGGED AS 170683

List of current GEL Certifications as of 06 September 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

Chain of Custody
And
Supporting
Documentation

Chain of Custody Form

No. 2006-00413

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.

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL	Ni-63				Comment, Preservation	Lab Sample ID
9106-0011-011F	5/17/06	08:15	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-012F	5/17/06	08:41	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-012FS	5/17/06	08:41	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-014F	5/17/06	09:34	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-015F	5/17/06	09:12	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-018F	5/17/06	10:01	SE	C	BP	X		X				Transferred from COC 2006-00356	
9106-0011-002F	5/15/06	14:33	SE	C	BP	X		X				Transferred from COC 2006-00352	
9106-0011-003F	5/15/06	14:58	SE	C	BP		X					Transferred from COC 2006-00352	

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

0877 per accompanying paperwork. C4jom 6/21/06

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

Bill of Lading #
7910 2328 7540

Internal Container Temp. Deg C
Custody Sealed? Y N
Custody Seal Intact? Y N

Relinquished By	Date/Time	Received By	Date/Time
1) Relinquished By: Jaime Ricarte	6-20-06/1100	2) Received By: [signature]	6/21/06 0930
3) Relinquished By		4) Received By	
5) Relinquished By		6) Received By	

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: CONN ATOMIC YANKEE	SDG/ARCOC/Work Order: 165614
Date Received: 6-21-06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: ACM	

	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) 24°C
3	Chain of custody documents included with shipment?	/			
4	Sample containers intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		/		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		/		Sample ID's and containers affected:
7	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: TIME & DATES WERE WIPED OFF
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	7910 2328 7542			

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?		X		Maximum Counts Observed*: CAM 60
B	PCB Regulated?	X			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: Initials _____ Date: 6/21/06

Figure 1. Sample Check-in List

Date/Time Received: 6-21-06 0930

SDG#: MSR# 06-0877

Work Order Number: 165614

Shipping Container ID: 7910 2328 2540 Chain of Custody # 2006-00413

1. Custody Seals on shipping container intact? Yes [X] No [ ]
2. Custody Seals dated and signed? Yes [ ] No [X]
3. Chain-of-Custody record present? Yes [X] No [ ]
4. Cooler temperature 24°C
5. Vermiculite/packing materials is: Wet [X] Dry [ ]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [N] No [ ]

8. Samples have:
   - 7 tape
   - X hazard labels
   - X custody seals
   - X appropriate sample labels

9. Samples are:
   - 7 in good condition
   - ____ leaking
   - ____ broken
   - ____ have air bubbles

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

Sample Custodian/Laboratory: A Marley Date: 6/21/06 0930

Telephoned to: ____ On ____ By ____

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

Chain of Custody Form

No. 2006-00451

1616653.1.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only

Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0012-002F	6/23/06	08:56	SE	C	BP	X						Transferred from COC 2006-00436	001
9106-0012-003F	6/23/06	08:39	SE	C	BP	X						Transferred from COC 2006-00436	002
9106-0012-004F	6/23/06	09:32	SE	C	BP		X					Transferred from COC 2006-00436	016
9106-0012-005F	6/23/06	09:56	SE	C	BP	X						Transferred from COC 2006-00436	003
9106-0012-006F	6/23/06	13:07	SE	C	BP	X						Transferred from COC 2006-00436	004
9106-0012-010F	6/23/06	11:08	SE	C	BP		X					Transferred from COC 2006-00436	017
9106-0012-013F	6/23/06	10:56	SE	C	BP	X						Transferred from COC 2006-00436	005
9106-0012-013FS	6/23/06	10:56	SE	C	BP	X						Transferred from COC 2006-00436	006

NOTES: PO#: 002332 MSR #: 06-060 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7919 8876 4783

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

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-6-06 / 1400.	[signature]	7/7/06 900
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. 2006-00452

1666531.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only

Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0012-007F	6/21/06	09:32	SE	C	BP	X						Transferred from COC # 2006-00433	007
9106-0012-008F	6/21/06	09:00	SE	C	BP	X						Transferred from COC # 2006-00433	008
9106-0012-012F	6/21/06	09:19	SE	C	BP	X						Transferred from COC # 2006-00433	009
9106-0012-014F	6/21/06	10:05	SE	C	BP	X						Transferred from COC # 2006-00433	010
9106-0012-011F	6/21/06	09:51	SE	C	BP	X						Transferred from COC # 2006-00433	011
9106-0012-015F	6/21/06	14:24	SE	C	BP	X						Transferred from COC # 2006-00433	012
9106-0012-009F	6/23/06	10:33	SE	C	BP	X						Transferred from COC # 2006-00436	013
9106-0012-009FS	6/23/06	10:33	SE	C	BP	X						Transferred from COC # 2006-00436	014
9106-0012-001F	6/23/06	09:18	SE	C	BP	X						Transferred from COC # 2006-00436	015

NOTES: PO #: 002332 MSR #: 06-0967 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7927 8782 3129

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

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RUARTE	7-6-06/1400	[signature]	7/7/06 900
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 166653, 166655, 166656
Date Received: 7/7/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

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

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	
A	Radiological Classification?		✓		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. Maximum Counts Observed*: 40 cpm
B	PCB Regulated?		✓		Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: _____ Initials CMJ Date: 7/7/06

Figure 1. Sample Check-in List

Date/Time Received: 7/7/06

SDG#:

Work Order Number: 166653 | 166655 | 166656

Shipping Container ID: 7919 8876 4783 - 23°C
7910 4024 2957 - 22°C
7937 8782 3134 - 23°C

Chain of Custody # 2006 - 00449
2006 - 00442
2006 - 00451
2006 - 00452

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°C - 22°C - 23°C
5. Vermiculite/packing materials is: Wet [✓] Dry [ ]
6. Number of samples in shipping container: (1) 3 ; (2) 12 (3) 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: [signature] Date: 7/7/06 0900

Telephoned to: On By

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

Chain of Custody Form

No. 2006-00434

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
501	9106-0013-006F	6/21/06	10:33	SE	C	BP	X							
502	9106-0013-003F	6/21/06	10:51	SE	C	BP	X							
503	9106-0013-002F	6/21/06	10:19	SE	C	BP	X							
504	9106-0013-002FS	6/21/06	10:19	SE	C	BP	X							
505	9106-0013-010F	6/21/06	13:56	SE	C	BP	X							
506	9106-0013-010FS	6/21/06	13:56	SE	C	BP	X							
507	9106-0013-005F	6/21/06	14:40	SE	C	BP	X							
508	9106-0013-011F	6/21/06	13:35	SE	C	BP	X							

NOTES: PO #: 002332 MSR #: 06-1036 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

1) Relinquished By	Date/Time	2) Received By	Date/Time
Jaime Ricartt	7-20-06 / 1445	K. [signature]	7/21/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

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

Bill of Lading #
7910-5711-1264

Internal Container Temp.: 21 Deg. C

Custody Sealed?
Y ☐ N ☒

Custody Seal Intact?
Y ☐ N ☐

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00444

Project Name: Haddam Neck Decommissioning

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

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only

Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9	9106-0013-007F	6-27-06	10:58	SE	C	BP	X							
10	9106-0013-014F	6-27-06	09:22	SE	C	BP	X							
11	9106-0013-015F	6-26-06	15:06	SE	C	BP	X						Transferred from COC 2006-00438	
12	9106-0013-001F	6-23-06	13:32	SE	C	BP	X						Transferred from COC 2006-00437	
16	9106-0013-004F	6-23-06	13:51	SE	C	BP		X					Transferred from COC 2006-00437	
17	9106-0013-009F	6-23-06	14:08	SE	C	BP		X					Transferred from COC 2006-00437	
13	9106-0013-013F	6-23-06	14:38	SE	C	BP	X						Transferred from COC 2006-00437	
14	9106-0013-008F	6-26-06	11:11	SE	C	BP	X						Transferred from COC 2006-00438	
15	9106-0013-012F	6-26-06	12:35	SE	C	BP	X						Transferred from COC 2006-00438	

NOTES: PO #: 002332 MSR #: 06-5036 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7910 5711 1209

Internal Container Temp.: 21 Deg. C

Custody Sealed?
Y ☐ N ☑

Custody Seal Intact?
Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-20-06 / 1445	K. Wright	7/20/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Conn. Yank.	SDG/ARCOC/Work Order: 167554, 167555, 167556
Date Received: 7/21/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	/			Circle Coolant # ice bags blue ice dry ice (none) other describe) See Cont. Sheet.
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: See Cont. Sheet.
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	See Sheet			

	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*: cpm 40
B	PCB Regulated?	/			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	/			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: _____ Initials _____ Date: 7/21/06

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Fed ex #'s	# of containers	COC #
7910 5711 1209 - 21°C	9	2006-00
1301 - 22°C	8	2006-0044
1194 - 21°C	10	2006-0044
1286 - 21°C	8	2006-00431
1220 - 23°C	9	2006-0044
(1264) 1 Cooler w/out Fedex # - 21°C	8	2006-00448 00

Chain # 2006-00444:

Sample # 9106-0013-004F Actually reads 9106-0013-004FS

Figure 1. Sample Check-in List

Date/Time Received: 7/21/06 0930

SDG#: MSR#06-1035, MSR#06-1036, MSR#06-1037

Work Order Number: 167555

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 [ ] N/A
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature See Cont Sheet
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
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):

Sample Custodian/Laboratory: K. Lufkin Date: 7/21/06

Telephoned to: On By

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

Chain of Custody Form

No. 2006-00456

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
001	9106-0014-021F	6/15/06	10:50	SE	C	BP	X						Transferred from COC 2006-00407	
002	9106-0014-030F	6/15/06	11:20	SE	C	BP	X						Transferred from COC 2006-00407	
003	9106-0014-032F	6/15/06	09:31	SE	C	BP	X						Transferred from COC 2006-00407	
004	9106-0014-043F	6/16/06	08:45	SE	C	BP	X						Transferred from COC 2006-00409	
005	9106-0014-010F	6/12/06	14:23	SE	C	BP	X						Transferred from COC 2006-00391	
006	9106-0014-016F	6/12/06	14:51	SE	C	BP	X						Transferred from COC 2006-00391	
007	9106-0014-022F	6/12/06	15:12	SE	C	BP	X						Transferred from COC 2006-00391	
008	9106-0014-013F	6/13/06	15:06	SE	C	BP	X						Transferred from COC 2006-00394	
009	9106-0014-024F	6/07/06	09:58	SE	C	BP	X						Transferred from COC 2006-00385	

NOTES: PO #: 002332 MSR #: 06-0988 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 4950 3967

Internal Container Temp.: ___ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-12-06 / 1200	Marian Patterson	7/13/06 945
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. 2006-00457

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only

Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
010	9106-0014-025F	6/7/06	10:18	SE	C	BP	X						Transferred from COC 2006-00387	
011	9106-0014-031F	6/7/06	10:44	SE	C	BP	X						Transferred from COC 2006-00387	
012	9106-0014-017F	6/9/06	07:39	SE	C	BP	X						Transferred from COC 2006-00387	
013	9106-0014-023F	6/9/06	08:23	SE	C	BP	X						Transferred from COC 2006-00387	
014	9106-0014-035F	6/9/06	09:03	SE	C	BP	X						Transferred from COC 2006-00387	
043	9106-0014-038F	6/9/06	10:59	SE	C	BP		X					Transferred from COC 2006-00387	
015	9106-0014-039F	6/9/06	09:28	SE	C	BP	X						Transferred from COC 2006-00387	
016	9106-0014-042F	6/9/06	09:53	SE	C	BP	X						Transferred from COC 2006-00387	
017	9106-0014-034F	6/9/06	10:11	SE	C	BP	X						Transferred from COC 2006-00387	

NOTES: PO #: 002332 MSR #: 06-0098 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 4950 3984

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-12-06/1200	Marion Gothers	7/13/06 945
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. 2006-00458

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL				Comment, Preservation	Lab Sample ID
118	9106-0014-029F	6/09/06	08:42	SE	C	BP	X					Transferred from COC 2006-00387	
119	9106-0014-009F	6/13/06	08:44	SE	C	BP	X					Transferred from COC 2006-00392	
120	9106-0014-028F	6/13/06	08:08	SE	C	BP	X					Transferred from COC 2006-00392	
121	9106-0014-028FS	6/13/06	08:08	SE	C	BP	X					Transferred from COC 2006-00392	
122	9106-0014-036F	6/13/06	09:38	SE	C	BP	X					Transferred from COC 2006-00392	
044	9106-0014-037F	6/13/06	09:12	SE	C	BP		X				Transferred from COC 2006-00392	
123	9106-0014-040F	6/13/06	10:42	SE	C	BP	X					Transferred from COC 2006-00392	
124	9106-0014-041F	6/13/06	10:13	SE	C	BP	X					Transferred from COC 2006-00392	
125	9106-0014-041FS	6/13/06	10:13	SE	C	BP	X					Transferred from COC 2006-00392	

NOTES: PO #: 002332 MSR #: 06-0985 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading # 7921 4950 4014

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y☐ N☐

Custody Seal Intact? Y☐ N☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-12-06/1200	[signature]	7/13/06 945
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2006-00459

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. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only / Comments

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
026	9106-0014-012F	6/06/06	12:47	SE	C	BP	X						Transferred from COC 2006-00384	
045	9106-0014-018F	6/06/06	14:45	SE	C	BP		X					Transferred from COC 2006-00384	
027	9106-0014-019F	6/06/06	14:25	SE	C	BP	X						Transferred from COC 2006-00384	
028	9106-0014-001F	6/09/06	13:37	SE	C	BP	X						Transferred from COC 2006-00392	
029	9106-0014-002F	6/09/06	14:40	SE	C	BP	X						Transferred from COC 2006-00392	
030	9106-0014-002FS	6/09/06	14:40	SE	C	BP	X						Transferred from COC 2006-00392	
031	9106-0014-005F	6/09/06	14:12	SE	C	BP	X						Transferred from COC 2006-00392	
032	9106-0014-006F	6/09/06	13:07	SE	C	BP	X						Transferred from COC 2006-00392	
046	9106-0014-011F	6/09/06	12:44	SE	C	BP		X					Transferred from COC 2006-00392	

NOTES: PO #: 002332 MSR #: 06-0988 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 4950 3990

1) Relinquished By JAIME RICARTE	Date/Time 7-12-06 / 1200	2) Received By [signature]	Date/Time 7/13/06 0945
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

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

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00460

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	Analyses Requested: FSSALL	Comment, Preservation	Lab Sample ID
047	9106-0014-003F	6/14/06	08:46	SE	C	BP		X	Transferred from COC 2006-00396	
033	9106-0014-007F	6/14/06	09:13	SE	C	BP	X		Transferred from COC 2006-00396	
034	9106-0014-008F	6/14/06	07:34	SE	C	BP	X		Transferred from COC 2006-00396	
035	9106-0014-008FS	6/14/06	07:34	SE	C	BP	X		Transferred from COC 2006-00396	
036	9106-0014-014F	6/14/06	10:23	SE	C	BP	X		Transferred from COC 2006-00396	

Lab Use Only
Comments:

NOTES: PO #: 002332 MSR #: 06-0088 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 4950 3978

Internal Container Temp. Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	7-12-06/1200	Marian Gattens	7/13/06 0845
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. 2006-00461

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0014-015F	6/14/06	11:39	SE	C	BP	X						Transferred from COC 2006-00396	
9106-0014-020F	6/14/06	13:10	SE	C	BP	X						Transferred from COC 2006-00396	
9106-0014-026F	6/14/06	13:53	SE	C	BP	X						Transferred from COC 2006-00396	
9106-0014-027F	6/14/06	14:26	SE	C	BP	X						Transferred from COC 2006-00396	
9106-0014-027FS	6/14/06	14:26	SE	C	BP	X						Transferred from COC 2006-00396	
9106-0014-033F	6/14/06	15:04	SE	C	BP	X							

NOTES: PO #: 002332 MSR #: 06-0988 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 4950 3978

Internal Container Temp. ___ Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
Jaime Ruarte	7-12-06/1200	Marion Gaither	7/13/06 0945
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: YANK	SDG/ARCOC/Work Order: 167014
Date Received: 7/18/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

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

	Suspected Hazard Information	Non-Regulated	Regulated	High Level	
A	Radiological Classification?		✓		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.
B	PCB Regulated?	✓			Maximum Counts Observed*: CPM 40
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 CAJ Date: 7/18/06

Figure 1. Sample Check-in List

Date/Time Received: 7/13/06 0945.

SDG#: MSR# 06-0988

Work Order Number: 167014

Shipping Container ID: 7921 4950 3589 Chain of Custody # 2006-00456

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 24°C
5. Vermiculite/packing materials is: Wet [~~✓~~] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? Yes [~~✓~~] No [ ]

8. Samples have:
   - [✓] tape
   - [ ] hazard labels
   - [✓] custody seals
   - [ ] appropriate sample labels

9. Samples are:
   - [✓] in good condition
   - [ ] leaking
   - [ ] broken
   - [ ] have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [~~✓~~]
11. Description of anomalies (include sample numbers):

Sample Custodian/Laboratory: [signature] Date: 7/13/06 0945

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/13/06 0945

SDG#: MSR#06-0988

Work Order Number: 167014

Shipping Container ID: 7921 4950 3978 2006-0045 Chain of Custody # 2006-0045

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 24°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	____ 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: Marian Bathers Date: 7/13/06 0945

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 7/13/06 0945

SDG#: MSR#06-0988

Work Order Number: 167014

Shipping Container ID: 7921 4950 3967 Chain of Custody # 2006-00458

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 24°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
   - [ ] 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: Marian Gallucci Date: 7/13/06 0945

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/13/06 0945

SDG#: MSR#06-0988

Work Order Number: 167014

Shipping Container ID: 7921 4950 3990 Chain of Custody # 2006-00459

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 _____
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: Monica Gothreau Date: 7/13/06 0945

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 7/13/06 0945

SDG#: MSR#06-0988

Work Order Number: 167014

Shipping Container ID: 7921 4950 3978 ~~3998~~ 3978 Chain of Custody # 2006-00460 -00461

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 2.3°C
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 11
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: Marian Gathers Date: 7/13/06 0945

Telephoned to: On By

Chain of Custody Form

No. 2006-00443

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

Project Name: Haddam Neck Decommissioning

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

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL	Sr-90	Ni-63			Comment, Preservation	Lab Sample ID
1	9106-0015-022F	6-27-06	16:24	SE	C	BP	X		X					
2	9106-0015-023F	6-27-06	16:03	SE	C	BP	X		X					
3	9106-0015-024F	6-27-06	15:42	SE	C	BP	X		X					
4	9106-0015-026F	6-27-06	14:58	SE	C	BP	X		X					
5	9106-0015-027F	6-27-06	15:17	SE	C	BP	X		X					
6	9106-0015-028F	6-27-06	14:31	SE	C	BP	X		X					
7	9106-0015-018F	6-27-06	17:18	SE	C	BP	X		X					
8	9106-0015-025F	6-27-06	16:43	SE	C	BP	X		X					
9	9106-0015-021F	6-27-06	17:01	SE	C	BP		X						

Lab Use Only
Comments:

NOTES: PO #: 002332 MSR #: 06-1037 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7910 5 7 11 1301

Internal Container Temp.: 22 Deg. C

Custody Sealed?
Y ☐ N ☒

Custody Seal Intact?
Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
Jaime Ricatti	7-20-06 / 1445	K. Wright	7/21/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time

Chain of Custody Form

No. 2006-00448

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

Project Name: Haddam Neck Decommissioning

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

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
18	9106-0015-011F	6-28-06	14:39	SE	C	BP	X		X					
19	9106-0015-012F	6-28-06	10:58	SE	C	BP	X		X					
20	9106-0015-013F	6-28-06	10:04	SE	C	BP	X		X					
21	9106-0015-014F	6-28-06	09:05	SE	C	BP	X		X					
31	9106-0015-015F	6-28-06	08:25	SE	C	BP		X						
22	9106-0015-016F	6-28-06	08:46	SE	C	BP	X		X					
23	9106-0015-017F	6-28-06	09:47	SE	C	BP	X		X					
24	9106-0015-019F	6-28-06	09:25	SE	C	BP	X		X					
25	9106-0015-020F	6-28-06	07:59	SE	C	BP	X		X					

NOTES: PO #: 002332 MSR #: 06-1037 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7910 5711 1286

Internal Container Temp. 21 Deg. C
Custody Sealed? Y ☐ N ☒
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
Jaime Richere	7-20-06/1445	K. Lebright	7/21/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00447

Project Name: Haddam Neck Decommissioning

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

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

Lab Use Only
Comments:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
9	9106-0015-001F	6-28-06	13:36	SE	C	BP	X		X					
10	9106-0015-002F	6-28-06	14:15	SE	C	BP	X		X					
11	9106-0015-003F	6-28-06	13:15	SE	C	BP	X		X					
12	9106-0015-004F	6-28-06	12:54	SE	C	BP		X						
13	9106-0015-005F	6-28-06	15:47	SE	C	BP	X		X					
14	9106-0015-006F	6-28-06	16:10	SE	C	BP	X		X					
15	9106-0015-007F	6-28-06	11:33	SE	C	BP	X		X					
16	9106-0015-008F	6-28-06	11:10	SE	C	BP	X		X					
17	9106-0015-009F	6-28-06	10:25	SE	C	BP	X		X					
	9106-0015-010F	6-28-06	15:17	SE	C	BP	X		X					

NOTES: PO #: 002332 MSR #: 06-1037 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7910 5711 1220

Internal Container Temp 23 Deg. C

Custody Sealed? Y☐ N☑

Custody Seal Intact? Y☐ N☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
Jaime Ricarte	7-20-06 / 1945	B. Lubright	7/21/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time

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

Chain of Custody Form

No. 2006-00468

Project Name: Haddam Neck Decommissioning

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

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

Priority: ☐ 30 D. ☒ 14 D. ☐ 7 D.

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
26	9106-0015-005FS	6-28-06	15:47	SE	C	BP	X		X					
27	9106-0015-012FS	6-28-06	10:58	SE	C	BP	X		X					
28	9106-0015-018FS	6-27-06	17:18	SE	C	BP	X		X					

NOTES: PO #: 002332 MSR #: 06-1037 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7910 5711 1286

Internal Container Temp: 21.1 Deg. C
21
Custody Sealed? Y ☐ N ☑
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RUARTE	7-20-06/1445	K Wright	7/21/06 0930
3) Relinquished By	Date/Time	4) Received By	Date/Time

SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: Conn. Yank.	SDG/ARCOC/Work Order: 167554, 167555, 167556
Date Received: 7/21/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	/			Circle Coolant # ice bags blue ice dry ice (none) other describe) See Cont. Sheet.
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: See Cont. Sheet.
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	See Sheet			

	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*: cpm 40
B	PCB Regulated?	/			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	/			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: Initials _____ Date: 7/21/06

Figure 1. Sample Check-in List

Date/Time Received: 7/21/06 0930

SDG#: MSR#06-1035, MSR#06-1036, MSR#06-1037

Work Order Number: 167556

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 [ ] N/A
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature See Cont. Sheet.
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
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):

Sample Custodian/Laboratory: K. Wright Date: 7/21/06

Telephoned to: On By

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

Fed ex #'s	# of containers	COC #
7910 5711 1209 - 21°C	9	2006-00444
1301 - 22°C	8	2006-00448
1194 - 21°C	10	2006-00447
1286 - 21°C	8	2006-00434
1220 - 23°C	9	2006-00443
(1264) 1 Cooler w/out Fedex # - 21°C	8	2006-00448/00441

Chain # 2006-00444:

Sample # 9106-0013-004F Actually reads

9106-0013-004FS

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

Chain of Custody Form

No. 2006-00496

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

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

Lab Use Only
Comments:
169489.1

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0001-132F			SE	C	BP	X							
9106-0001-112F			SE	C	BP	X							
9106-0001-132A			SE	C	BP	X							
9106-0001-132B			SE	C	BP	X							
9106-0001-132C			SE	C	BP	X							
9106-0001-132D			SE	C	BP	X							
9106-0001-112A			SE	C	BP	X							
9106-0001-112B			SE	C	BP	X							
9106-0001-112C			SE	C	BP	X							

NOTES: PO#: 002332 MSR #: 06-1130 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 8130 3482

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	8-16-06 / 1155	C. Duniat	8/17/06 / 915a
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. 2006-00497

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3924

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

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

Analyses Requested

Lab Use Only
Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9106-0001-112D			SE	C	BP	X							

NOTES: PO #: 002332 MSR #: 06-1130 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Bill of Lading #
7921 8130 3482

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

1) Relinquished By	Date/Time	2) Received By	Date/Time
JAIME RICARTE	8-16-06 / 1155	C. Denicola	8/17/06 @ 915a
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: 8/17/06 @ 915A.

SDG#: MSR#06-1130

Work Order Number: 1694891.

Shipping Container ID: 7921 8130 3482 Chain of Custody # 2006-00496

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 26°C
5. Vermiculite/packing materials is: Wet [✓] Dry [ ]
6. Number of samples in shipping container: 10 - samples
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): none

Sample Custodian/Laboratory: C. Dusi [signature] Date: 8/17/06

Telephoned to: ___ On ___ By ___

SAMPLE RECEIPT & REVIEW FORM
CONTINUATION FORM

- Connecticut Yankee Atomic Power Company -

	[Date]	&	[TIME]
9106--132F	8-7-06	&	14:09
9106--132C	8-11-06	&	12:58
9106--132B	8-11-06	&	10:56
9106--132A	8-11-06	&	10:05
9106--132D	8-11-06	&	1340
9106--112F	8-2-06	&	13:54
9106--112C	8-15-06	&	07:43
9106--112B	8-14-06	&	14:55
9106--112A	8-14-06	&	14:23
9106--112D	8-15-06	&	08:47
*COC# 2006-00498 *			
9106--001SUR	8-10-06	&	10:14
9106--002SUR	8-10-06	&	09:35
9106--003SUR	8-10-06	&	10:53
9106--004SUR	8-10-06	&	12:53
9106--005SUR	8-10-06	&	14:09
9106--006SUR	8-10-06	&	14:35

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 170683

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:	565213
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175602	Method Blank (MB)
1201175603	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175604	170683004(9106-0013-006F) Matrix Spike (MS)
1201175605	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: 170683004 (9106-0013-006F).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

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

Additional Comments
The sample and the duplicate, 1201175603 (9106-0013-006F) and 170683004 (9106-0013-006F), did not meet the relative percent difference requirement, however they do meet the relative error ratio requirement with value of 2.11.

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:	567705
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201181287	Method Blank (MB)
1201181288	170683003(9106-0012-014F) Sample Duplicate (DUP)
1201181289	170683003(9106-0012-014F) Matrix Spike (MS)
1201181290	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: 170683003 (9106-0012-014F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
Batch reprepped due to Thorium interference.

Miscellaneous Information:

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

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

Additional Comments
The sample and the duplicate,1201181288 (9106-0012-014F) and 170683003 (9106-0012-014F), did not meet the Am-241 relative percent difference requirement, however they do meet the relative error ratio requirement with a value of 0.512.

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:	565210
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175591	Method Blank (MB)
1201175592	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201175593	170683001(9106-0011-018F) Matrix Spike (MS)
1201175594	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: 170683001 (9106-0011-018F).

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.

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:	565214
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175606	Method Blank (MB)
1201175607	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175608	170683004(9106-0013-006F) Matrix Spike (MS)
1201175609	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: 170683004 (9106-0013-006F).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

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

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:	565216
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175614	Method Blank (MB)
1201175615	170683004(9106-0013-006F) Sample Duplicate (DUP)

1201175616 170683004(9106-0013-006F) Matrix Spike (MS)
1201175617 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: 170683004 (9106-0013-006F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
Samples 1201175614 (MB), 1201175615 (9106-0013-006F), 170683004 (9106-0013-006F), 170683005 (9106-0013-005F), 170683008 (9106-0015-018F), 170683009 (9106-0015-002F) and 170683010 (9106-0001-132F) 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.

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

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	567883
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201181751	Method Blank (MB)
1201181752	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201181753	170683001(9106-0011-018F) Matrix Spike (MS)
1201181754	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: 170683001 (9106-0011-018F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
The batch was reprepped 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.

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

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:	565250
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175679	Method Blank (MB)
1201175680	170683002(9106-0012-005F) Sample Duplicate (DUP)
1201175681	170683002(9106-0012-005F) Matrix Spike (MS)
1201175682	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: 170683002 (9106-0012-005F).

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
Samples 170683001 (9106-0011-018F) and 170683006 (9106-0014-012F) were recounted due to high MDAs.

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

Miscellaneous Information:

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

Additional Comments
Samples were dried and reweighed due to low matrix spike recovery.

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:	565253
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	**Client ID**
170683004	9106-0013-006F
170683005	9106-0013-005F
170683010	9106-0001-132F

1201175686	Method Blank (MB)
1201175687	170683005(9106-0013-005F) Sample Duplicate (DUP)
1201175688	170683005(9106-0013-005F) Matrix Spike (MS)
1201175689	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: 170683005 (9106-0013-005F).

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.

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.

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: 564445

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173840	Method Blank (MB)
1201173841	170544018(9304-0002-005F) Sample Duplicate (DUP)
1201173842	170544018(9304-0002-005F) Matrix Spike (MS)
1201173843	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: 170544018 (9304-0002-005F).

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.

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:	564623

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174253	Method Blank (MB)
1201174254	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201174255	170683001(9106-0011-018F) Matrix Spike (MS)
1201174256	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: 170683001 (9106-0011-018F).

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 1201174254 (9106-0011-018F) 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.

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:	565648

Sample ID	Client ID
170683010	9106-0001-132F
1201176786	Method Blank (MB)
1201176787	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176788	170683010(9106-0001-132F) Matrix Spike (MS)
1201176789	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: 170683010 (9106-0001-132F).

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.

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:	565287
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	**Client ID**
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175808	Method Blank (MB)
1201175809	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201175810	170683006(9106-0014-012F) Matrix Spike (MS)
1201175811	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: 170683006 (9106-0014-012F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
Samples 1201175810 (9106-0014-012F), 170683001 (9106-0011-018F), 170683002 (9106-0012-005F) and 170683006 (9106-0014-012F) were recounted due to the quench number being outside the calibration range.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 356906 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the sample 170683001 into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on the proper scanning procedures. Reporting results.

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:	565291
Prep Batch Number:	564526

Dry Soil Prep GL-RAD-A-021 Batch Number: 564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175818	Method Blank (MB)
1201175819	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175820	170683004(9106-0013-006F) Matrix Spike (MS)
1201175821	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: 170683004 (9106-0013-006F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
Samples 170683004 (9106-0013-006F) and 170683009 (9106-0015-002F) were recounted due to the quench number being outside the calibration range.

Miscellaneous Information:

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

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:	565289
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175814	Method Blank (MB)
1201175815	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201175816	170683006(9106-0014-012F) Matrix Spike (MS)
1201175817	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: 170683006 (9106-0014-012F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
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.

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:	565293
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175822	Method Blank (MB)
1201175823	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175824	170683004(9106-0013-006F) Matrix Spike (MS)
1201175825	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: 170683004 (9106-0013-006F).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

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: 564447

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173844	Method Blank (MB)
1201173845	170544018(9304-0002-005F) Sample Duplicate (DUP)
1201173846	170544018(9304-0002-005F) Matrix Spike (MS)
1201173847	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

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

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

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 170544018 (9304-0002-005F).

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
Samples 1201173846 (9304-0002-005F) and 1201173847 (LCS) were recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 356177 was generated due to Container scanning event for custody missed. 1. Container scanning event for custody missed: The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on proper scanning procedures. Reporting results

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: 564514

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174038	Method Blank (MB)
1201174039	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201174040	170683006(9106-0014-012F) Matrix Spike (MS)
1201174041	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

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

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

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 170683006 (9106-0014-012F).

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

Technical Information:

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

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

Sample Re-prep/Re-analysis
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.

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:	565650

Sample ID	Client ID
170683010	9106-0001-132F
1201176794	Method Blank (MB)
1201176795	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176796	170683010(9106-0001-132F) Matrix Spike (MS)
1201176797	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

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

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

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 170683010 (9106-0001-132F).

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.

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:	564449

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173848	Method Blank (MB)
1201173849	170544019(9304-0002-008F) Sample Duplicate (DUP)
1201173850	170544019(9304-0002-008F) Matrix Spike (MS)
1201173851	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: 170544019 (9304-0002-008F).

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 1201173849 (9304-0002-008F) was recounted due to a negative result greater than three times the error. Samples 170683008 (9106-0015-018F) and 170683009 (9106-0015-002F) were recounted to verify results. Second counts being reported.

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.

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:	564520

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174056	Method Blank (MB)
1201174057	170683007(9106-0014-033F) Sample Duplicate (DUP)
1201174058	170683007(9106-0014-033F) Matrix Spike (MS)
1201174059	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: 170683007 (9106-0014-033F).

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.

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:	565649

Sample ID	Client ID
170683010	9106-0001-132F
1201176790	Method Blank (MB)
1201176791	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176792	170683010(9106-0001-132F) Matrix Spike (MS)
1201176793	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: 170683010 (9106-0001-132F).

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.

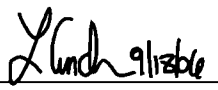
Miscellaneous Information:

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.

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:  9/18/06

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-SEP-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
565287	See Below		

Potentially affected work order(s)(SDG): 170683

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the sample 170683001 into the batch prior to analysis, however the samples did remain in their custody at all times.	1. The error has been corrected and the analyst has been instructed on the proper scanning procedures. Reporting results.

Originator's Name:
Melanie Aycock 11-SEP-06

Data Validator/Group Leader:
Heather Anderson 11-SEP-06

Quality Review:

Director:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-SEP-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	EPA 906.0 Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
564447	See Below		

Potentially affected work order(s)(SDG): 170543(MSR#06-1172),170544(MSR#06-1174),170683

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Container scanning event for custody missed: The analyst did not scan the samples intot he batch prior to analysis, however the samples did remain in their custody at all times.	1. The error has been corrected and the analyst has been instructed on proper scanning procedures. Reporting results

Originator's Name:
Kenshalla Oston 08-SEP-06

Data Validator/Group Leader:
Melanie Aycock 08-SEP-06

Quality Review:

Director:

SAMPLE DATA SUMMARY

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: 170683 GEL Work Order: 170683

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

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

ND The analyte concentration is not detected above the detection limit.

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

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

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

Reviewed by

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: September 18, 2006

Client Sample ID:	9106 0011 018F	Project:	YANK01204
Sample ID:	170683001	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	17 MAY 06		
Receive Date:	21 JUN 06		
Collector:	Client		
Moisture:	36.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241	U	0.0277	+/ 0.0418	0.0128	+/ 0.042	0.0643	pCi/g		TC1	09/14/06	0931	567705	1
Curium 242	U	0.00666	+/ 0.0505	0.037	+/ 0.0505	0.138	pCi/g						
Curium 243/244	U	0.0167	+/ 0.0348	0.0388	+/ 0.0349	0.117	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.148	+/ 0.269	0.289	+/ 0.270	0.795	pCi/g		MXA1	09/11/06	0919	565210	3
Plutonium 239/240	U	0.00321	+/ 0.174	0.144	+/ 0.174	0.505	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	9.87	+/ 11.1	8.90	+/ 11.1	18.6	pCi/g		TC1	09/17/06	0214	567883	4
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.00422	+/ 0.0151	0.0123	+/ 0.0151	0.0271	pCi/g		KSD1	09/11/06	1917	565250	6
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	3.33	+/ 6.35	5.16	+/ 6.35	10.9	pCi/g		DFA1	09/05/06	1123	564514	7
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.00	+/ 0.0818	0.0686	+/ 0.0818	0.140	pCi/g		AXD2	09/06/06	0035	564520	8
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	0.852	+/ 61.3	41.7	+/ 61.3	86.4	pCi/g		MXP1	09/10/06	1419	565287	9
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.341	+/ 0.291	0.235	+/ 0.291	0.485	pCi/g		KXR1	09/06/06	1232	564623	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	AXP2	09/01/06	1328	564525

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0011 018F
Sample ID: 170683001
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	DOE EML HASL 300, Pu 11 RC Modified											
5	DOE EML HASL 300, Pu 11 RC Modified											
6	EPA 905.0 Modified											
7	EPA 906.0 Modified											
8	EPA EERF C 01 Modified											
9	DOE RESL Fe 1, Modified											
10	DOE EML HASL 300, Tc 02 RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	89	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	38	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	89	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	51	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	75	(15% 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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
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Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: September 18, 2006

Client Sample ID: 9106 0011 018F
Sample ID: 170683001

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

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

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 005F	Project:	YANK01204
Sample ID:	170683002	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	23 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	23.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241	U	0.00725	+/ 0.0262	0.0156	+/ 0.0262	0.0644	pCi/g		TC1	09/14/06	0931	567705	1
Curium 242	U	0.00	+/ 0.0343	0.00	+/ 0.0343	0.0474	pCi/g						
Curium 243/244	U	0.00297	+/ 0.0249	0.0111	+/ 0.025	0.0557	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.0214	+/ 0.203	0.159	+/ 0.203	0.498	pCi/g		MXA 1	09/11/06	0919	565210	3
Plutonium 239/240	U	0.120	+/ 0.237	0.134	+/ 0.238	0.449	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	10	+/ 8.47	7.55	+/ 8.47	15.8	pCi/g		TC1	09/17/06	0230	567883	4
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.00415	+/ 0.016	0.0141	+/ 0.016	0.0332	pCi/g		KSD1	09/08/06	1803	565250	6
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	4.39	+/ 5.57	4.46	+/ 5.57	9.42	pCi/g		DFA1	09/05/06	1155	564514	7
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0271	+/ 0.0822	0.0694	+/ 0.0822	0.141	pCi/g		AXD2	09/06/06	0253	564520	8
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	3.71	+/ 50.4	34.5	+/ 50.4	71.6	pCi/g		MXP1	09/10/06	1435	565287	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	5.04	+/ 7.63	6.28	+/ 7.63	12.9	pCi/g		MXP1	09/08/06	0035	565289	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.057	+/ 0.270	0.225	+/ 0.270	0.464	pCi/g		KXR1	09/06/06	1249	564623	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	09/01/06	1328	564525

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300, Am 05 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: September 18, 2006

Client Sample ID: 9106 0012 005F
Sample ID: 170683002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
2	DOE EML HASL 300, Am 05 RC Modified												
3	DOE EML HASL 300, Pu 11 RC Modified												
4	DOE EML HASL 300, Pu 11 RC Modified												
5	DOE EML HASL 300, Pu 11 RC Modified												
6	EPA 905.0 Modified												
7	EPA 906.0 Modified												
8	EPA EERF C 01 Modified												
9	DOE RESL Fe 1, Modified												
10	DOE RESL Ni 1, Modified												
11	DOE EML HASL 300, Tc 02 RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	90	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	47	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	78	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	99	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	67	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	85	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	82	(15% 125%)

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

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 005F Project: YANK01204
Sample ID: 170683002 Client ID: YANK001
Vol. Recv.:

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

Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0012 014F	Project:	YANK01204
Sample ID:	170683003	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	07 JUL 06		
Collector:	Client		
Moisture:	24.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241	U	0.012	+/ 0.0233	0.00	+/ 0.0234	0.032	pCi/g		TC1	09/14/06	0931	567705	1
Curium 242	U	0.00814	+/ 0.0351	0.0215	+/ 0.0351	0.089	pCi/g						
Curium 243/244	U	0.00571	+/ 0.0246	0.0151	+/ 0.0246	0.0624	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.00589	+/ 0.322	0.272	+/ 0.322	0.744	pCi/g		MXA 1	09/11/06	0919	565210	3
Plutonium 239/240	U	0.0588	+/ 0.218	0.147	+/ 0.218	0.494	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	4.22	+/ 11.5	9.47	+/ 11.5	19.8	pCi/g		TC1	09/17/06	0246	567883	4
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.0176	+/ 0.0191	0.0133	+/ 0.0191	0.0316	pCi/g		KSD1	09/08/06	1803	565250	6
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	1.38	+/ 6.13	5.08	+/ 6.13	10.7	pCi/g		DFA1	09/05/06	1226	564514	7
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.00209	+/ 0.0745	0.0625	+/ 0.0745	0.127	pCi/g		AXD2	09/06/06	0501	564520	8
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	13.9	+/ 36.7	24.3	+/ 36.7	50.7	pCi/g		MXP1	09/07/06	2253	565287	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	4.26	+/ 8.20	6.78	+/ 8.20	13.9	pCi/g		MXP1	09/08/06	0106	565289	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.269	+/ 0.281	0.228	+/ 0.281	0.470	pCi/g		KXR1	09/06/06	1305	564623	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	09/01/06	1328	564525

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300, Am 05 RC Modified

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 014F Project: YANK01204
Sample ID: 170683003 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
2	DOE EML HASL 300, Am 05 RC Modified												
3	DOE EML HASL 300, Pu 11 RC Modified												
4	DOE EML HASL 300, Pu 11 RC Modified												
5	DOE EML HASL 300, Pu 11 RC Modified												
6	EPA 905.0 Modified												
7	EPA 906.0 Modified												
8	EPA EERF C 01 Modified												
9	DOE RESL Fe 1, Modified												
10	DOE RESL Ni 1, Modified												
11	DOE EML HASL 300, Tc 02 RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	95	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	44	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	84	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	70	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	79	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	81	(15% 125%)

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

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0012 014F
Sample ID: 170683003

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

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

Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ 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: September 18, 2006

Client Sample ID:	9106 0013 006F	Project:	YANK01204
Sample ID:	170683004	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	21 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.187	+/ 0.170	0.0339	+/ 0.172	0.170	pCi/g		MXA1	09/12/06	0844	565213	1
Curium 242	U	0.0387	+/ 0.0438	0.0836	+/ 0.0442	0.313	pCi/g						
Curium 243/244	U	0.00608	+/ 0.118	0.102	+/ 0.118	0.308	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.012	+/ 0.0236	0.045	+/ 0.0236	0.226	pCi/g		MXA1	09/11/06	0919	565214	2
Plutonium 239/240	U	0.0601	+/ 0.0526	0.100	+/ 0.0531	0.337	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	16.2	+/ 13.4	10.8	+/ 13.5	22.3	pCi/g		MXA1	09/12/06	2245	565216	3
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.000813	+/ 0.0187	0.0156	+/ 0.0187	0.036	pCi/g		KSD1	09/08/06	1932	565253	4
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	0.997	+/ 4.80	3.98	+/ 4.80	8.39	pCi/g		DFA1	09/05/06	1847	564447	5
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0199	+/ 0.109	0.0921	+/ 0.109	0.192	pCi/g		AXD2	09/06/06	0955	564449	6
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	33.7	+/ 51.9	34.2	+/ 52.0	71.2	pCi/g		MXP1	09/11/06	1150	565291	7
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	0.395	+/ 9.40	7.88	+/ 9.40	16.2	pCi/g		MXP1	09/08/06	2220	565293	8
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.0409	+/ 0.273	0.231	+/ 0.273	0.475	pCi/g		KXR1	09/06/06	1637	564445	9

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 Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0013 006F Project: YANK01204
Sample ID: 170683004 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 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	86	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	60	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	72	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	70	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	43	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	79	(15% 125%)

Notes:
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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" 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: September 18, 2006

Client Sample ID:	9106 0013 005F	Project:	YANK01204
Sample ID:	170683005	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	21 JUN 06		
Receive Date:	21 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.505	+/ 0.295	0.0542	+/ 0.304	0.224	pCi/g	1	MXA1	09/12/06	0844	565213	1
Curium 242	U	0.00	+/ 0.119	0.00	+/ 0.119	0.165	pCi/g						
Curium 243/244	U	0.0327	+/ 0.0868	0.0387	+/ 0.0869	0.194	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.008	+/ 0.0157	0.0299	+/ 0.0157	0.150	pCi/g	1	MXA1	09/11/06	0919	565214	2
Plutonium 239/240	U	0.0399	+/ 0.035	0.0668	+/ 0.0352	0.224	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	7.84	+/ 13.5	11.1	+/ 13.5	22.8	pCi/g	1	MXA1	09/12/06	2332	565216	3
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.000759	+/ 0.0157	0.0133	+/ 0.0157	0.0313	pCi/g		KSD1	09/08/06	1932	565253	4
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	0.175	+/ 4.77	4.01	+/ 4.77	8.45	pCi/g		DFA1	09/05/06	1919	564447	5
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0246	+/ 0.107	0.0905	+/ 0.107	0.188	pCi/g		AXD2	09/06/06	1027	564449	6
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	8.33	+/ 39.2	26.6	+/ 39.2	55.3	pCi/g		MXP1	09/08/06	0121	565291	7
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	1.92	+/ 5.36	4.55	+/ 5.36	9.32	pCi/g		MXP1	09/08/06	2323	565293	8
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.0807	+/ 0.273	0.227	+/ 0.273	0.468	pCi/g		KXR1	09/06/06	1654	564445	9

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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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: September 18, 2006

Client Sample ID: 9106 0013 005F
Sample ID: 170683005

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 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	68	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	86	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	71	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	101	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	71	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	72	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	80	(15% 125%)

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

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" 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: September 18, 2006

Client Sample ID:	9106 0014 012F	Project:	YANK01204
Sample ID:	170683006	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	06 JUN 06		
Receive Date:	13 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.0945	+/ 0.0698	0.0158	+/ 0.0709	0.0654	pCi/g		TC1	09/14/06	0931	567705	1
Curium 242	U	0.0191	+/ 0.0374	0.00	+/ 0.0375	0.0517	pCi/g						
Curium 243/244	U	0.0473	+/ 0.0497	0.0113	+/ 0.050	0.0567	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.113	+/ 0.329	0.328	+/ 0.330	0.930	pCi/g		MXA1	09/11/06	0919	565210	3
Plutonium 239/240	U	0.097	+/ 0.0951	0.181	+/ 0.0963	0.637	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	4.84	+/ 11.6	9.54	+/ 11.6	20.0	pCi/g		TC1	09/17/06	0302	567883	4
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.00246	+/ 0.00901	0.00776	+/ 0.00901	0.0169	pCi/g		KSD1	09/11/06	1917	565250	6
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	3.44	+/ 6.25	5.07	+/ 6.25	10.7	pCi/g		DFA1	09/05/06	1258	564514	7
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0486	+/ 0.0773	0.064	+/ 0.0773	0.130	pCi/g		AXD2	09/06/06	0635	564520	8
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	12.6	+/ 44.5	30.6	+/ 44.5	63.6	pCi/g		MXP1	09/10/06	1451	565287	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	4.82	+/ 7.80	6.44	+/ 7.80	13.2	pCi/g		MXP1	09/08/06	0138	565289	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.0865	+/ 0.281	0.234	+/ 0.281	0.481	pCi/g		KXR1	09/06/06	1321	564623	11

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300, Am 05 RC Modified
2	DOE EML HASL 300, Am 05 RC Modified
3	DOE EML HASL 300, Pu 11 RC Modified
4	DOE EML HASL 300, Pu 11 RC Modified
5	DOE EML HASL 300, Pu 11 RC Modified
6	EPA 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0014 012F
Sample ID: 170683006
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	93	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	33	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	84	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	91	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	74	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	80	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	79	(15% 125%)

Notes:
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B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" 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: September 18, 2006

Client Sample ID:	9106 0014 033F	Project:	YANK01204
Sample ID:	170683007	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	14 JUN 06		
Receive Date:	13 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.0906	+/ 0.0692	0.0118	+/ 0.0703	0.0594	pCi/g		TC1	09/14/06	0931	567705	1
Curium 242	U	0.0195	+/ 0.0383	0.00	+/ 0.0384	0.053	pCi/g						
Curium 243/244		0.0799	+/ 0.0639	0.00	+/ 0.0648	0.0361	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.0396	+/ 0.254	0.229	+/ 0.254	0.638	pCi/g		MXA 1	09/11/06	0919	565210	3
Plutonium 239/240	U	0.203	+/ 0.182	0.244	+/ 0.184	0.666	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	4.34	+/ 11.1	9.14	+/ 11.1	19.2	pCi/g		TC1	09/17/06	0319	567883	4
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.00411	+/ 0.0167	0.0133	+/ 0.0167	0.0316	pCi/g		KSD1	09/08/06	1803	565250	6
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	3.13	+/ 5.10	4.12	+/ 5.10	8.71	pCi/g		DFA1	09/05/06	1330	564514	7
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0995	+/ 0.0918	0.075	+/ 0.0918	0.153	pCi/g		AXD2	09/06/06	0807	564520	8
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	19.3	+/ 37.9	24.9	+/ 37.9	51.8	pCi/g		MXP1	09/07/06	2326	565287	9
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	4.62	+/ 7.14	5.88	+/ 7.14	12.1	pCi/g		MXP1	09/08/06	0209	565289	10
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.00	+/ 0.282	0.236	+/ 0.282	0.487	pCi/g		KXR1	09/06/06	1338	564623	11

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300, Am 05 RC Modified
2	DOE EML HASL 300, Am 05 RC Modified
3	DOE EML HASL 300, Pu 11 RC Modified
4	DOE EML HASL 300, Pu 11 RC Modified
5	DOE EML HASL 300, Pu 11 RC Modified
6	EPA 905.0 Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0014 033F
Sample ID: 170683007
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	87	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	41	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	89	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	99	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	76	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	84	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	78	(15% 125%)

Notes:
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B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" 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: September 18, 2006

Client Sample ID:	9106 0015 018F	Project:	YANK01204
Sample ID:	170683008	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	27 JUN 06		
Receive Date:	21 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.193	+/ 0.166	0.00	+/ 0.168	0.101	pCi/g	1	MXA1	09/12/06	0844	565213	1
Curium 242	U	0.0784	+/ 0.147	0.0655	+/ 0.147	0.271	pCi/g						
Curium 243/244	U	0.0942	+/ 0.129	0.0474	+/ 0.130	0.196	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.0325	+/ 0.0637	0.00	+/ 0.0638	0.0881	pCi/g	1	MXA1	09/11/06	0919	565214	2
Plutonium 239/240	U	0.0013	+/ 0.0705	0.0582	+/ 0.0705	0.204	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	7.19	+/ 12.0	9.91	+/ 12.1	20.4	pCi/g	1	MXA1	09/13/06	0019	565216	3
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	0.686	+/ 5.32	4.50	+/ 5.32	9.48	pCi/g		DFA1	09/05/06	1950	564447	4
Liquid Scint C14, Solid All,FSS													
Carbon 14	U	0.0572	+/ 0.114	0.0942	+/ 0.114	0.193	pCi/g		AXD2	09/09/06	0331	564449	5
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	7.27	+/ 37.9	25.6	+/ 37.9	53.2	pCi/g		MXP1	09/08/06	0137	565291	6
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	2.39	+/ 7.60	6.43	+/ 7.60	13.2	pCi/g		MXP1	09/09/06	0025	565293	7
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.132	+/ 0.270	0.223	+/ 0.270	0.460	pCi/g		KXR1	09/06/06	1710	564445	8

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
7	DOE RESL Ni 1, Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: September 18, 2006

Client Sample ID: 9106 0015 018F
Sample ID: 170683008

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	78	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	86	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	79	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	79	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	47	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	82	(15% 125%)

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424 Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0015 002F	Project:	YANK01204
Sample ID:	170683009	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	28 JUN 06		
Receive Date:	21 JUL 06		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.292	+/ 0.213	0.0479	+/ 0.217	0.198	pCi/g		MXA 1	09/12/06	0844	565213	1
Curium 242	U	0.0522	+/ 0.102	0.00	+/ 0.103	0.141	pCi/g						
Curium 243/244	U	0.0289	+/ 0.0766	0.0341	+/ 0.0767	0.171	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.0352	+/ 0.0798	0.0658	+/ 0.0798	0.231	pCi/g		MXA 1	09/11/06	0919	565214	2
Plutonium 239/240	U	0.019	+/ 0.0758	0.0465	+/ 0.0758	0.192	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	24.6	+/ 16.2	13.0	+/ 16.5	26.7	pCi/g		MXA 1	09/13/06	0106	565216	3
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	1.6	+/ 7.22	6.13	+/ 7.22	12.9	pCi/g		DFA1	09/05/06	2022	564447	4
Liquid Scint C14, Solid All,FSS													
Carbon 14		0.207	+/ 0.113	0.0898	+/ 0.113	0.185	pCi/g		AXD2	09/09/06	0418	564449	5
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	10.8	+/ 47.1	31.3	+/ 47.1	65.2	pCi/g		MXP1	09/11/06	1206	565291	6
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	3.07	+/ 6.78	5.76	+/ 6.78	11.8	pCi/g		MXP1	09/09/06	0127	565293	7
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.390	+/ 0.283	0.227	+/ 0.283	0.468	pCi/g		KXR1	09/06/06	1726	564445	8

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
7	DOE RESL Ni 1, Modified

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0015 002F
Sample ID: 170683009
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	78	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	79	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	75	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	74	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	55	(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 an "as received" basis.

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9106 0001 132F	Project:	YANK01204
Sample ID:	170683010	Client ID:	YANK001
Matrix:	SE	Vol. Recv.:	
Collect Date:	07 AUG 06		
Receive Date:	17 AUG 06		
Collector:	Client		
Moisture:	23.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium 241		0.160	+/ 0.147	0.0296	+/ 0.148	0.148	pCi/g	1	MXA1	09/12/06	0844	565213	1
Curium 242	U	0.00	+/ 0.0754	0.00	+/ 0.0754	0.104	pCi/g						
Curium 243/244		0.132	+/ 0.130	0.00	+/ 0.131	0.0896	pCi/g						
Alphaspec Pu, Solid ALL FSS													
Plutonium 238	U	0.0279	+/ 0.0954	0.0976	+/ 0.0955	0.306	pCi/g	1	MXA1	09/11/06	0919	565214	2
Plutonium 239/240	U	0.0591	+/ 0.0934	0.0903	+/ 0.0934	0.292	pCi/g						
Liquid Scint Pu241, Solid ALL FSS													
Plutonium 241	U	14.0	+/ 14.7	12.0	+/ 14.8	24.6	pCi/g	1	MXA1	09/13/06	0153	565216	3
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid ALL FSS													
Strontium 90	U	0.00619	+/ 0.0168	0.0131	+/ 0.0168	0.0311	pCi/g		KSD1	09/08/06	1932	565253	4
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid HTD2,ALL FSS													
Tritium	U	4.94	+/ 7.02	5.55	+/ 7.02	12.0	pCi/g		ATH2	09/07/06	0102	565650	5
Liquid Scint C14, Solid All,FSS													
Carbon 14		0.324	+/ 0.115	0.0889	+/ 0.115	0.183	pCi/g		AXD2	09/08/06	0456	565649	6
Liquid Scint Fe55, Solid ALL FSS													
Iron 55	U	1.92	+/ 38.0	25.9	+/ 38.0	53.9	pCi/g		MXP1	09/08/06	0210	565291	7
Liquid Scint Ni63, Solid ALL FSS													
Nickel 63	U	0.735	+/ 5.83	4.88	+/ 5.83	10.0	pCi/g		MXP1	09/09/06	0229	565293	8
Liquid Scint Tc99, Solid ALL FSS													
Technetium 99	U	0.0126	+/ 0.193	0.161	+/ 0.193	0.330	pCi/g		KXR1	09/12/06	1349	565648	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	JMB1	09/05/06	1736	565454

The following Analytical Methods were performed

Method	Description

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0001 132F
Sample ID: 170683010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
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											
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	87	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	66	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	66	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	76	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	72	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	72	(15% 125%)

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

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A The TIC is a suspected aldol condensation product
B Target analyte was detected in the associated blank
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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

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

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: September 18, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9106 0001 132F
Sample ID: 170683010

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

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

^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 170683

Report Date: September 18, 2006

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 565210										
QC1201175592 170683001 DUP										
Plutonium-238	U	-0.148	U	0.137	pCi/g	5180		(0% - 100%)	JXA1	09/11/06 09:19
	Uncert:	+/-0.269		+/-0.303						
	TPU:	+/-0.270		+/-0.304						
Plutonium-239/240	U	0.00321	U	-0.215	pCi/g	206		(0% - 100%)		
	Uncert:	+/-0.174		+/-0.181						
	TPU:	+/-0.174		+/-0.183						
QC1201175594 LCS										
Plutonium-238			U	-0.0564	pCi/g			(75%-125%)		
	Uncert:			+/-0.446						
	TPU:			+/-0.446						
Plutonium-239/240	12.3			9.42	pCi/g		77	(75%-125%)		
	Uncert:			+/-1.98						
	TPU:			+/-2.49						
QC1201175591 MB										
Plutonium-238			U	0.117	pCi/g					
	Uncert:			+/-0.220						
	TPU:			+/-0.221						
Plutonium-239/240			U	0.0802	pCi/g					
	Uncert:			+/-0.226						
	TPU:			+/-0.226						
QC1201175593 170683001 MS										
Plutonium-238	U	-0.148	U	0.110	pCi/g			(75%-125%)		
	Uncert:	+/-0.269		+/-0.175						
	TPU:	+/-0.270		+/-0.176						
Plutonium-239/240	12.5 U	0.00321		11.8	pCi/g		94	(75%-125%)		
	Uncert:	+/-0.174		+/-1.70						
	TPU:	+/-0.174		+/-2.29						
Batch 565213										
QC1201175603 170683004 DUP										
Americium-241		0.187		0.163	pCi/g	14		(0% - 100%)	JXA1	09/12/06 08:44
	Uncert:	+/-0.170		+/-0.149						
	TPU:	+/-0.172		+/-0.151						
Curium-242	U	-0.0387		0.143	pCi/g	348		(0% - 100%)		
	Uncert:	+/-0.0438		+/-0.162						
	TPU:	+/-0.0442		+/-0.163						
Curium-243/244	U	-0.00608	U	-0.0487	pCi/g	156		(0% - 100%)		
	Uncert:	+/-0.118		+/-0.0768						
	TPU:	+/-0.118		+/-0.0769						
QC1201175605 LCS										
Americium-241	13.5			12.8	pCi/g		95	(75%-125%)		
	Uncert:			+/-1.24						
	TPU:			+/-2.12						

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 565213										
Curium-242			U	0.00	pCi/g					
Uncert:				+/-0.0625						
TPU:				+/-0.0625						
Curium-243/244	16.4			15.1	pCi/g		92	(75%-125%)		
Uncert:				+/-1.35						
TPU:				+/-2.44						
QC1201175602 MB										
Americium-241			U	0.0812	pCi/g					09/12/06 08:44
Uncert:				+/-0.107						
TPU:				+/-0.108						
Curium-242			U	0.0664	pCi/g					
Uncert:				+/-0.106						
TPU:				+/-0.107						
Curium-243/244			U	-0.00886	pCi/g					
Uncert:				+/-0.0744						
TPU:				+/-0.0745						
QC1201175604 170683004 MS										
Americium-241	13.7	0.187		14.1	pCi/g		102	(75%-125%)		09/12/06 08:44
Uncert:		+/-0.170		+/-1.41						
TPU:		+/-0.172		+/-2.41						
Curium-242	U	-0.0387		0.209	pCi/g					
Uncert:		+/-0.0438		+/-0.205						
TPU:		+/-0.0442		+/-0.207						
Curium-243/244	16.7 U	-0.00608		16.2	pCi/g		97	(75%-125%)		
Uncert:		+/-0.118		+/-1.52						
TPU:		+/-0.118		+/-2.71						
Batch 565214										
QC1201175607 170683004 DUP										
Plutonium-238	U	-0.012	U	-0.0415	pCi/g	110		(0% - 100%)	JXA1	09/11/06 09:19
Uncert:		+/-0.0236		+/-0.0941						
TPU:		+/-0.0236		+/-0.0941						
Plutonium-239/240	U	-0.0601	U	-0.0311	pCi/g	64		(0% - 100%)		
Uncert:		+/-0.0526		+/-0.0917						
TPU:		+/-0.0531		+/-0.0917						
QC1201175609 LCS										
Plutonium-238			U	0.00142	pCi/g			(75%-125%)		
Uncert:				+/-0.0772						
TPU:				+/-0.0772						
Plutonium-239/240	12.5			10.7	pCi/g		86	(75%-125%)		
Uncert:				+/-1.21						
TPU:				+/-1.66						
QC1201175606 MB										
Plutonium-238			U	-0.0382	pCi/g					
Uncert:				+/-0.113						
TPU:				+/-0.113						
Plutonium-239/240			U	-0.0891	pCi/g					
Uncert:				+/-0.066						
TPU:				+/-0.0669						
QC1201175608 170683004 MS										

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 565214										
Plutonium-238	U	-0.012	U	0.0632	pCi/g			(75%-125%)		
	Uncert:	+/-0.0236		+/-0.143						
	TPU:	+/-0.0236		+/-0.143						
Plutonium-239/240	12.6 U	-0.0601		10.9	pCi/g		87	(75%-125%)		
	Uncert:	+/-0.0526		+/-1.20						
	TPU:	+/-0.0531		+/-1.66						
Batch 565216										
QC1201175615 170683004 DUP										
Plutonium-241	U	16.2	U	5.89	pCi/g	0		(0% - 100%)	MXA1	09/13/06 03:26
	Uncert:	+/-13.4		+/-12.7						
	TPU:	+/-13.5		+/-12.7						
QC1201175617 LCS										
Plutonium-241	341			310	pCi/g		91	(75%-125%)		09/12/06 11:26
	Uncert:			+/-32.9						
	TPU:			+/-45.2						
QC1201175614 MB										
Plutonium-241			U	5.70	pCi/g					09/13/06 02:39
	Uncert:			+/-12.7						
	TPU:			+/-12.7						
QC1201175616 170683004 MS										
Plutonium-241	344 U	16.2		341	pCi/g		99	(75%-125%)		09/12/06 11:10
	Uncert:	+/-13.4		+/-51.8						
	TPU:	+/-13.5		+/-66.7						
Batch 567705										
QC1201181288 170683003 DUP										
Americium-241	U	0.012		0.120	pCi/g	164		(0% - 100%)	TC1	09/14/06 09:31
	Uncert:	+/-0.0233		+/-0.0804						
	TPU:	+/-0.0234		+/-0.082						
Curium-242	U	-0.00814	U	0.00	pCi/g	200		(0% - 100%)		
	Uncert:	+/-0.0351		+/-0.0381						
	TPU:	+/-0.0351		+/-0.0381						
Curium-243/244	U	-0.00571	U	-0.0196	pCi/g	110		(0% - 100%)		
	Uncert:	+/-0.0246		+/-0.031						
	TPU:	+/-0.0246		+/-0.031						
QC1201181290 LCS										
Americium-241	5.23			5.41	pCi/g		103	(75%-125%)		
	Uncert:			+/-0.508						
	TPU:			+/-0.878						
Curium-242			U	0.00	pCi/g					
	Uncert:			+/-0.0244						
	TPU:			+/-0.0244						
Curium-243/244	6.31			6.40	pCi/g		101	(75%-125%)		
	Uncert:			+/-0.553						
	TPU:			+/-1.01						
QC1201181287 MB										
Americium-241			U	0.00039	pCi/g					09/14/06 09:31
	Uncert:			+/-0.00421						
	TPU:			+/-0.00421						

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 567705										
Curium-242			U	0.00902	pCi/g					
Uncert:				+/-0.0239						
TPU:				+/-0.0239						
Curium-243/244			U	-0.00283	pCi/g					
Uncert:				+/-0.0238						
TPU:				+/-0.0238						
QC1201181289 170683003 MS										
Americium-241	5.27 U	0.012		5.58	pCi/g		106	(75%-125%)		09/14/06 09:31
Uncert:		+/-0.0233		+/-0.524						
TPU:		+/-0.0234		+/-0.908						
Curium-242	U	-0.00814	U	0.0183	pCi/g					
Uncert:		+/-0.0351		+/-0.0359						
TPU:		+/-0.0351		+/-0.036						
Curium-243/244	6.41 U	-0.00571		7.36	pCi/g		115	(75%-125%)		
Uncert:		+/-0.0246		+/-0.603						
TPU:		+/-0.0246		+/-1.15						
Batch 567883										
QC1201181752 170683001 DUP										
Plutonium-241	U	9.87	U	-3.06	pCi/g	0		(0% - 100%)	TC1	09/17/06 03:51
Uncert:		+/-11.1		+/-10.4						
TPU:		+/-11.1		+/-10.4						
QC1201181754 LCS										
Plutonium-241	135			120	pCi/g		89	(75%-125%)		09/17/06 04:24
Uncert:				+/-16.2						
TPU:				+/-19.8						
QC1201181751 MB										
Plutonium-241			U	1.78	pCi/g					09/17/06 03:35
Uncert:				+/-9.61						
TPU:				+/-9.61						
QC1201181753 170683001 MS										
Plutonium-241	142 U	9.87		113	pCi/g		80	(75%-125%)		09/17/06 04:08
Uncert:		+/-11.1		+/-15.8						
TPU:		+/-11.1		+/-19.1						
Rad Gas Flow										
Batch 565250										
QC1201175680 170683002 DUP										
Strontium-90	U	-0.00415	U	0.000131	pCi/g	0		(0% - 100%)	KSD1	09/08/06 18:03
Uncert:		+/-0.016		+/-0.0253						
TPU:		+/-0.016		+/-0.0253						
QC1201175682 LCS										
Strontium-90	1.56			1.63	pCi/g		105	(75%-125%)		09/08/06 18:05
Uncert:				+/-0.151						
TPU:				+/-0.155						
QC1201175679 MB										
Strontium-90			U	-0.00458	pCi/g					09/08/06 18:03
Uncert:				+/-0.018						
TPU:				+/-0.018						
QC1201175681 170683002 MS										
Strontium-90	3.13 U	-0.00415		2.38	pCi/g		76	(75%-125%)		09/08/06 18:03

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 565250										
	Uncert:	+/-0.016		+/-0.249						
	TPU:	+/-0.016		+/-0.253						
Batch 565253										
QC1201175687 170683005 DUP										
Strontium-90	U	-0.000759	U	-0.000963	pCi/g	0		(0% - 100%)	KSD1	09/08/06 19:32
	Uncert:	+/-0.0157		+/-0.0166						
	TPU:	+/-0.0157		+/-0.0166						
QC1201175689 LCS										
Strontium-90	1.57			1.20	pCi/g		77	(75%-125%)		09/09/06 12:26
	Uncert:			+/-0.113						
	TPU:			+/-0.118						
QC1201175686 MB										
Strontium-90			U	-0.0216	pCi/g					09/08/06 19:32
	Uncert:			+/-0.00992						
	TPU:			+/-0.00992						
QC1201175688 170683005 MS										
Strontium-90	3.14 U	-0.000759		2.77	pCi/g		88	(75%-125%)		09/08/06 19:31
	Uncert:	+/-0.0157		+/-0.189						
	TPU:	+/-0.0157		+/-0.205						
Rad Liquid Scintillation										
Batch 564445										
QC1201173841 170544018 DUP										
Technetium-99	U	0.128	U	0.0496	pCi/g	0		(0% - 100%)	KXR1	09/06/06 17:59
	Uncert:	+/-0.272		+/-0.251						
	TPU:	+/-0.272		+/-0.251						
QC1201173843 LCS										
Technetium-99	12.7			13.0	pCi/g		103	(75%-125%)		09/06/06 18:32
	Uncert:			+/-0.501						
	TPU:			+/-0.582						
QC1201173840 MB										
Technetium-99			U	0.0991	pCi/g					09/06/06 17:43
	Uncert:			+/-0.243						
	TPU:			+/-0.243						
QC1201173842 170544018 MS										
Technetium-99	13.1 U	0.128		13.3	pCi/g		102	(75%-125%)		09/06/06 18:15
	Uncert:	+/-0.272		+/-0.540						
	TPU:	+/-0.272		+/-0.620						
Batch 564447										
QC1201173845 170544018 DUP										
Tritium	U	1.53	U	0.760	pCi/g	0		(0% - 100%)	DFA1	09/05/06 21:25
	Uncert:	+/-6.54		+/-5.24						
	TPU:	+/-6.54		+/-5.24						
QC1201173847 LCS										
Tritium	46.9			44.3	pCi/g		95	(75%-125%)		09/07/06 11:21
	Uncert:			+/-8.94						
	TPU:			+/-8.98						
QC1201173844 MB										
Tritium			U	-0.43	pCi/g					09/05/06 20:54

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 564447										
	Uncert:			+/-4.67						
	TPU:			+/-4.67						
QC1201173846 170544018 MS										
Tritium	54.5 U	1.53		57.4	pCi/g		105	(75%-125%)		09/07/06 11:05
	Uncert:	+/-6.54		+/-10.7						
	TPU:	+/-6.54		+/-10.7						
Batch 564449										
QC1201173849 170544019 DUP										
Carbon-14	U	-0.0997	U	-0.0804	pCi/g	0		(0% - 100%)	AXD2	09/09/06 05:04
	Uncert:	+/-0.0966		+/-0.108						
	TPU:	+/-0.0966		+/-0.108						
QC1201173851 LCS										
Carbon-14	6.66			6.26	pCi/g		94	(75%-125%)		09/06/06 13:38
	Uncert:			+/-0.258						
	TPU:			+/-0.276						
QC1201173848 MB										
Carbon-14			U	-0.0326	pCi/g					09/06/06 12:02
	Uncert:			+/-0.102						
	TPU:			+/-0.102						
QC1201173850 170544019 MS										
Carbon-14	6.86 U	-0.0997		6.85	pCi/g		100	(75%-125%)		09/06/06 13:07
	Uncert:	+/-0.0966		+/-0.273						
	TPU:	+/-0.0966		+/-0.293						
Batch 564514										
QC1201174039 170683006 DUP										
Tritium	U	3.44	U	1.46	pCi/g	0		(0% - 100%)	DFA1	09/05/06 14:33
	Uncert:	+/-6.25		+/-5.79						
	TPU:	+/-6.25		+/-5.79						
QC1201174041 LCS										
Tritium	48.4			53.7	pCi/g		111	(75%-125%)		09/05/06 15:36
	Uncert:			+/-7.25						
	TPU:			+/-7.31						
QC1201174038 MB										
Tritium			U	0.308	pCi/g					09/05/06 14:01
	Uncert:			+/-4.66						
	TPU:			+/-4.66						
QC1201174040 170683006 MS										
Tritium	49.1 U	3.44		61.1	pCi/g		124	(75%-125%)		09/05/06 15:05
	Uncert:	+/-6.25		+/-7.58						
	TPU:	+/-6.25		+/-7.65						
Batch 564520										
QC1201174057 170683007 DUP										
Carbon-14	U	0.0995	U	0.0741	pCi/g	0		(0% - 100%)	AXD2	09/06/06 10:24
	Uncert:	+/-0.0918		+/-0.118						
	TPU:	+/-0.0918		+/-0.118						
QC1201174059 LCS										
Carbon-14	6.58			6.51	pCi/g		99	(75%-125%)		09/06/06 11:28
	Uncert:			+/-0.263						
	TPU:			+/-0.282						

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 564520										
QC1201174056 MB										
Carbon-14			U	-0.0231	pCi/g					09/06/06 09:53
	Uncert:			+/-0.105						
	TPU:			+/-0.105						
QC1201174058 170683007 MS										
Carbon-14	7.19 U	0.0995		6.42	pCi/g		89	(75%-125%)		09/06/06 10:56
	Uncert:	+/-0.0918		+/-0.276						
	TPU:	+/-0.0918		+/-0.293						
Batch 564623										
QC1201174254 170683001 DUP										
Technetium-99	U	0.341	U	0.187	pCi/g	0		(0% - 100%)	KXR1	09/08/06 19:42
	Uncert:	+/-0.291		+/-0.211						
	TPU:	+/-0.291		+/-0.211						
QC1201174256 LCS										
Technetium-99	13.0			12.2	pCi/g		94	(75%-125%)		09/06/06 14:43
	Uncert:			+/-0.490						
	TPU:			+/-0.566						
QC1201174253 MB										
Technetium-99			U	0.151	pCi/g					09/06/06 13:54
	Uncert:			+/-0.247						
	TPU:			+/-0.247						
QC1201174255 170683001 MS										
Technetium-99	13.0 U	0.341		12.9	pCi/g		99	(75%-125%)		09/06/06 14:27
	Uncert:	+/-0.291		+/-0.547						
	TPU:	+/-0.291		+/-0.623						
Batch 565287										
QC1201175809 170683006 DUP										
Iron-55	U	-12.6	U	38.3	pCi/g	0		(0% - 100%)	MXP1	09/07/06 23:59
	Uncert:	+/-44.5		+/-41.2						
	TPU:	+/-44.5		+/-41.2						
QC1201175811 LCS										
Iron-55	628			613	pCi/g		98	(75%-125%)		09/08/06 00:31
	Uncert:			+/-56.2						
	TPU:			+/-67.5						
QC1201175808 MB										
Iron-55			U	10.2	pCi/g					09/07/06 23:42
	Uncert:			+/-35.9						
	TPU:			+/-35.9						
QC1201175810 170683006 MS										
Iron-55	746 U	-12.6		675	pCi/g		91	(75%-125%)		09/10/06 15:07
	Uncert:	+/-44.5		+/-60.5						
	TPU:	+/-44.5		+/-73.4						
Batch 565289										
QC1201175815 170683006 DUP										
Nickel-63	U	4.82	U	6.11	pCi/g	0		(0% - 100%)	MXP1	09/08/06 03:13
	Uncert:	+/-7.80		+/-9.03						
	TPU:	+/-7.80		+/-9.03						
QC1201175817 LCS										
Nickel-63	512			443	pCi/g		87	(75%-125%)		09/08/06 04:16

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 565289										
	Uncert:			+/-15.2						
	TPU:			+/-20.8						
QC1201175814 MB										
Nickel-63			U	5.67	pCi/g					09/08/06 02:41
	Uncert:			+/-7.44						
	TPU:			+/-7.44						
QC1201175816 170683006 MS										
Nickel-63	572 U	4.82		475	pCi/g		83	(75%-125%)		09/08/06 03:44
	Uncert:	+/-7.80		+/-15.4						
	TPU:	+/-7.80		+/-22.2						
Batch 565291										
QC1201175819 170683004 DUP										
Iron-55	U	33.7	U	-4.73	pCi/g	0		(0% - 100%)	MXP1	09/08/06 02:42
	Uncert:	+/-51.9		+/-40.3						
	TPU:	+/-52.0		+/-40.3						
QC1201175821 LCS										
Iron-55	628			652	pCi/g		104	(75%-125%)		09/08/06 03:15
	Uncert:			+/-52.2						
	TPU:			+/-64.9						
QC1201175818 MB										
Iron-55			U	-26.7	pCi/g					09/08/06 02:26
	Uncert:			+/-35.6						
	TPU:			+/-35.6						
QC1201175820 170683004 MS										
Iron-55	711 U	33.7		744	pCi/g		105	(75%-125%)		09/08/06 02:59
	Uncert:	+/-51.9		+/-60.1						
	TPU:	+/-52.0		+/-75.2						
Batch 565293										
QC1201175823 170683004 DUP										
Nickel-63	U	0.395	U	0.122	pCi/g	0		(0% - 100%)	MXP1	09/09/06 04:34
	Uncert:	+/-9.40		+/-7.25						
	TPU:	+/-9.40		+/-7.25						
QC1201175825 LCS										
Nickel-63	512			467	pCi/g		91	(75%-125%)		09/09/06 06:38
	Uncert:			+/-15.4						
	TPU:			+/-21.5						
QC1201175822 MB										
Nickel-63			U	-2.47	pCi/g					09/09/06 03:32
	Uncert:			+/-5.58						
	TPU:			+/-5.58						
QC1201175824 170683004 MS										
Nickel-63	531 U	0.395		535	pCi/g		101	(75%-125%)		09/09/06 05:36
	Uncert:	+/-9.40		+/-21.6						
	TPU:	+/-9.40		+/-27.8						
Batch 565648										
QC1201176787 170683010 DUP										
Technetium-99	U	0.0126	U	0.0841	pCi/g	0		(0% - 100%)	KXR1	09/12/06 14:53
	Uncert:	+/-0.193		+/-0.206						
	TPU:	+/-0.193		+/-0.206						

QC Summary

Workorder: 170683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 565648										
QC1201176789 LCS										
Technetium-99	13.1			13.2	pCi/g		101	(75%-125%)		09/12/06 15:56
	Uncert:			+/-0.349						
	TPU:			+/-0.480						
QC1201176786 MB										
Technetium-99			U	0.00238	pCi/g					09/12/06 14:21
	Uncert:			+/-0.154						
	TPU:			+/-0.154						
QC1201176788 170683010 MS										
Technetium-99	13.0 U	0.0126		12.1	pCi/g		93	(75%-125%)		09/12/06 15:24
	Uncert:	+/-0.193		+/-0.383						
	TPU:	+/-0.193		+/-0.489						
Batch 565649										
QC1201176791 170683010 DUP										
Carbon-14		0.324		0.204	pCi/g	46		(0% - 100%)	AXD2	09/08/06 07:38
	Uncert:	+/-0.115		+/-0.112						
	TPU:	+/-0.115		+/-0.112						
QC1201176793 LCS										
Carbon-14	7.27			8.39	pCi/g		115	(75%-125%)		09/08/06 09:12
	Uncert:			+/-0.256						
	TPU:			+/-0.288						
QC1201176790 MB										
Carbon-14			U	0.0136	pCi/g					09/08/06 06:51
	Uncert:			+/-0.109						
	TPU:			+/-0.109						
QC1201176792 170683010 MS										
Carbon-14	7.22	0.324		7.14	pCi/g		94	(75%-125%)		09/08/06 08:25
	Uncert:	+/-0.115		+/-0.239						
	TPU:	+/-0.115		+/-0.264						
Batch 565650										
QC1201176795 170683010 DUP										
Tritium	U	4.94	U	7.42	pCi/g	0		(0% - 100%)	ATH2	09/07/06 01:36
	Uncert:	+/-7.02		+/-7.37						
	TPU:	+/-7.02		+/-7.37						
QC1201176797 LCS										
Tritium	64.5			64.9	pCi/g		101	(75%-125%)		09/07/06 02:09
	Uncert:			+/-10.8						
	TPU:			+/-10.8						
QC1201176794 MB										
Tritium			U	4.55	pCi/g					09/07/06 01:19
	Uncert:			+/-6.87						
	TPU:			+/-6.87						
QC1201176796 170683010 MS										
Tritium	64.7 U	4.94		67.5	pCi/g		104	(75%-125%)		09/07/06 01:52
	Uncert:	+/-7.02		+/-10.9						
	TPU:	+/-7.02		+/-10.9						

QC Summary

Workorder: 170683

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

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

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

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

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

Attachment 2b
Split Sample Assessment Forms
(2 Pages)

Split Sample Assessment Form

Survey Area#: 9106	Survey Unit #: 0012	Survey Unit Name: Discharge Canal
Sample Plan or WPIR#: 2006-0021		SML #: 9106-0012-009FS

Sample Description: Comparison of split samples collected from sample measurement location #9 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was 9106-0012-009F, the comparison sample was 9106-0012-009FS.

STANDARD					COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	5.93E-03	1.12E-02	1	NONE -	2.40E-02	1.38E-02	4.05	N/A
K-40	1.17E+01	5.85E-01	20	0.75 - 1.33	1.14E+01	4.07E-01	0.97	Y

Comments/Corrective Actions: In consideration of the Cs-137 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 rations cannot be made. Since K-40 was found to be present at an acceptable level of agreement, no further action is warranted.

Table is provided to show acceptance criteria used to assess split samples.

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:
Oal Rundall	11-3-06		11/7/06

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

Split Sample Assessment Form

Survey Area #: 9106	Survey Unit #: 0012	Survey Unit Name: Discharge Canal
Sample Plan or WPIR#: 2006-021		SML #: 9106-0012-013FS

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 9106-0012-013F the comparison sample was 9106-0012-013FS.

STANDARD					COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	7.93E-03	8.65E-03	1	NONE -	1.43E-02	1.00E-02	1.80	N/A
K-40	1.21E+01	3.74E-01	32	0.75 - 1.33	1.36E+01	4.67E-01	1.12	Y

Comments/Corrective Actions: In consideration of the Cs-137 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 rations cannot be made. Since K-40 was found to be present at an acceptable level of agreement, no further action is warranted.

Table is provided to show acceptance criteria used to assess split samples.

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:
Carl Rudolph	11-3-06		11/8/06

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

Attachment 2c
Preliminary Data Form
(1 Page)

Preliminary Data Review Form - Samples for the Sign Test

Survey Unit:	9106- 0012
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
Minimum Value:	5.93E-03
Maximum Value:	1.37E-01
Mean:	4.07E-02
Median:	2.25E-02
Standard Deviation:	4.04E-02

	RADIONUCLIDE CONCENTRATION (pCi/g)		
NUMBER	Cs-137	Cs Identified?	Co Identified?
9106-0012-001F	2.25E-02	NO	
9106-0012-002F	4.39E-02	NO	
9106-0012-003F	1.72E-02	NO	
9106-0012-004F	1.87E-02	NO	
9106-0012-005F	1.19E-01	YES	
9106-0012-006F	6.95E-02	YES	
9106-0012-007F	6.47E-02	YES	
9106-0012-008F	3.07E-02	NO	
9106-0012-009F	5.93E-03	NO	
9106-0012-010F	3.23E-02	YES	
9106-0012-011F	1.49E-02	YES	
9106-0012-012F	1.63E-02	NO	
9106-0012-013F	7.93E-03	NO	
9106-0012-014F	1.37E-01	YES	
9106-0012-015F	9.50E-03	NO	

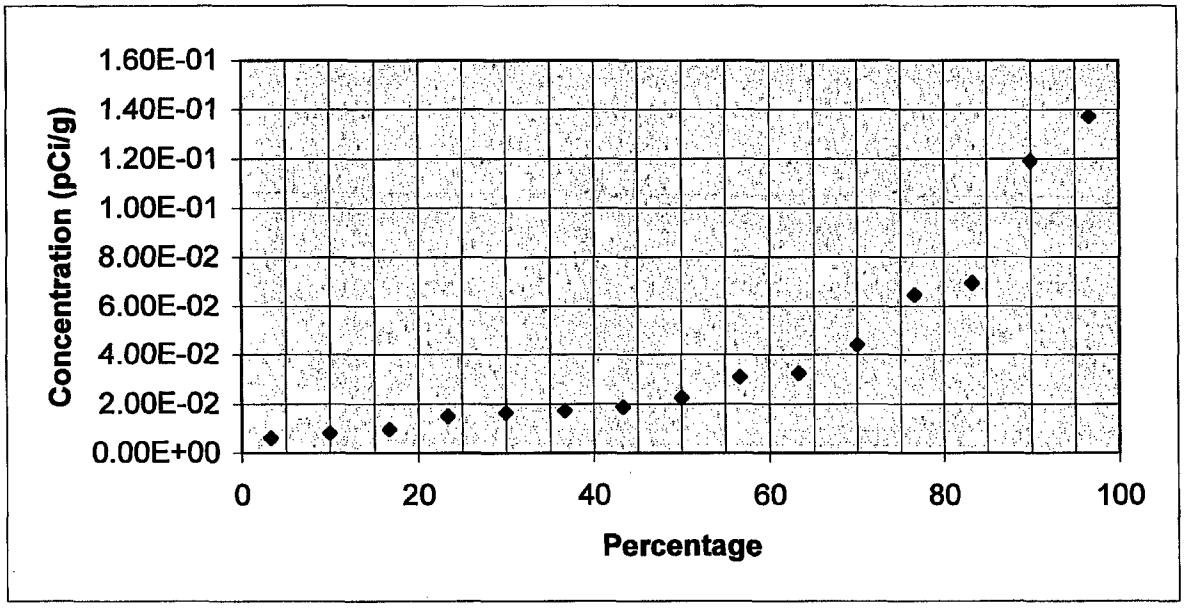
Performed By: Oak Ridge Date: 11-3-06

Independent Review: Date: 11/7/06

Attachment 2d
Graphical Representation of Data
(2 Pages)

Quantile Plot For Cesium - 137

Survey Unit: 9106-0012
Survey Unit Name: Discharge Canal
Mean: 4.07E-02 pCi/g



Cs-137	Rank	Percentage
5.93E-03	1	3 %
7.93E-03	2	10 %
9.50E-03	3	17 %
1.49E-02	4	23 %
1.63E-02	5	30 %
1.72E-02	6	37 %
1.87E-02	7	43 %
2.25E-02	8	50 %
3.07E-02	9	57 %
3.23E-02	10	63 %
4.39E-02	11	70 %
6.47E-02	12	77 %
6.95E-02	13	83 %
1.19E-01	14	90 %
1.37E-01	15	97 %

Prepared By: _____ Date: 11-3-06

Reviewed By: _____ Date: 11/7/06

Attachment 2e
Sign Test Calculation
(1 Page)

Sign Test Calculation Sheet For Multiple Radionuclisdes

Survey Unit Number: 9106-0012

Survey Unit Name: Discharge Canal

WP&IR#: 2006-021

Classification : 2	TYPE I (α error):0.05	TYPE I (β error):0.05	

Radionuclides: Cs-137

Operational DCGL (pCi/g): 6.01

Results Cs-137	Weighted Sum (W_s)	DCGL-Result	Sign
2.25E-02	3.74E-03	9.96E-01	1
4.39E-02	7.30E-03	9.93E-01	1
1.72E-02	2.86E-03	9.97E-01	1
1.87E-02	3.11E-03	9.97E-01	1
1.19E-01	1.98E-02	9.80E-01	1
6.95E-02	1.16E-02	9.88E-01	1
6.47E-02	1.08E-02	9.89E-01	1
3.07E-02	5.11E-03	9.95E-01	1
5.93E-03	9.87E-04	9.99E-01	1
3.23E-02	5.37E-03	9.95E-01	1
1.49E-02	2.48E-03	9.98E-01	1
1.63E-02	2.71E-03	9.97E-01	1
7.93E-03	1.32E-03	9.99E-01	1
1.37E-01	2.28E-02	9.77E-01	1
9.50E-03	1.58E-03	9.98E-01	1

Number of Positive Differences (S+): 15

Critical Value: 11 Survey Unit: Meets Acceptance Criterion

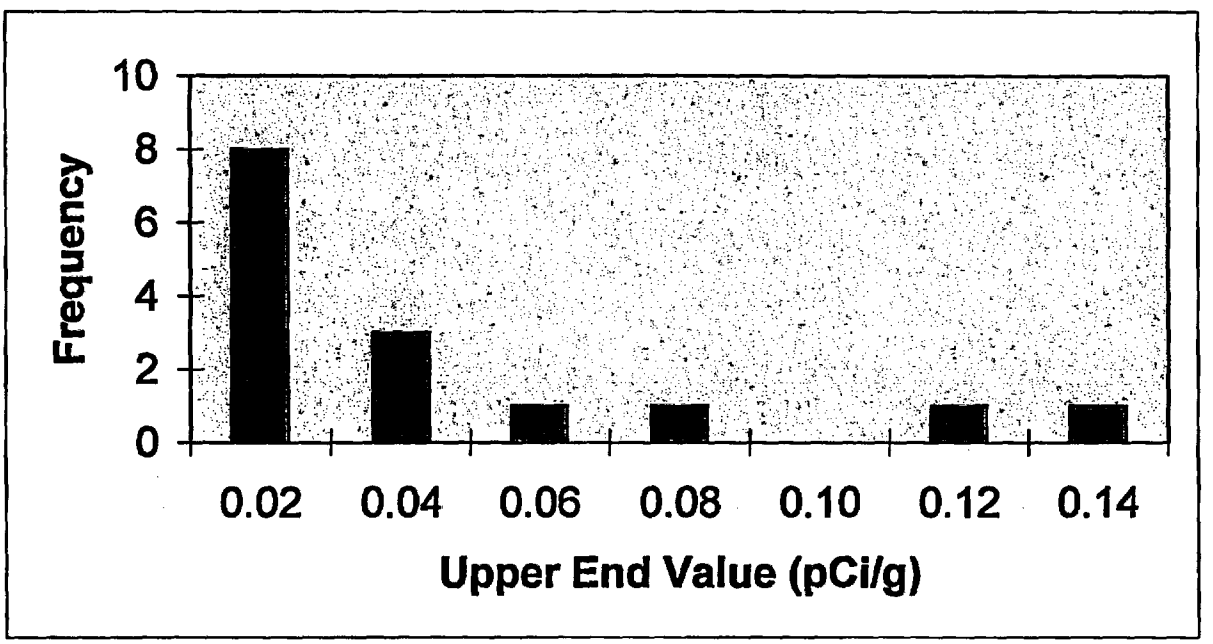
Performed By: Oak Rundell Date: 11-3-06

Independent Review: Date: 11/7/06

Frequency Plot For Cesium-137

Survey Unit: 9106-0012
Survey Unit Name: Discharge Canal

Mean: 0.041 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.02	8	53%
0.04	3	20%
0.06	1	7%
0.08	1	7%
0.10	0	0%
0.12	1	7%
0.14	1	7%
Total	15	100%

Prepared By: Dale Kendall Date: 11-3-06

Reviewed By: [signature] Date: 11/7/06

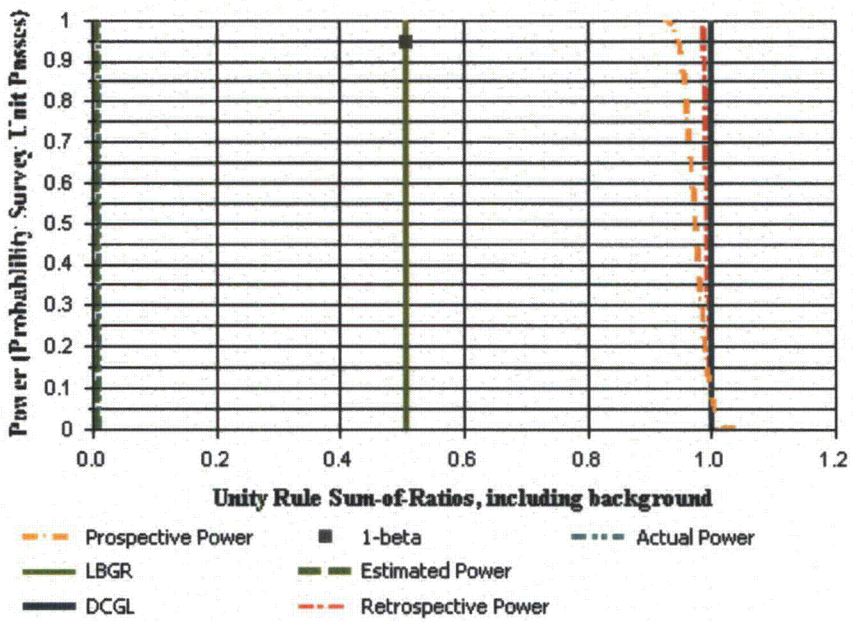
Attachment 2f
COMPASS DQA Surface Soil Report with Retrospective Power Curve
(3 Pages)

DQA Surface Soil Report

Assessment Summary

Site:	9106-0012 (19 mrem/yr)		
Planner(s):	Dale Randall		
Survey Unit Name:	9106-0012 Discharge Canal (permanent wetland area)		
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:	***Reject Null Hypothesis (Survey Unit PASSES)***		

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	Co-60 (pCi/g)	Cs-137 (pCi/g)
9106-0012-001F	S	0.01	0.02
9106-0012-002F	S	0.03	0.04
9106-0012-003F	S	0	0.02
9106-0012-004F	S	0.02	0.02
9106-0012-005F	S	0.02	0.12
9106-0012-006F	S	0	0.07
9106-0012-007F	S	0.02	0.06
9106-0012-008F	S	0.02	0.03
9106-0012-009F	S	-0.02	0.01
9106-0012-010F	S	0.01	0.03
9106-0012-011F	S	0.01	0.01
9106-0012-012F	S	0.01	0.02
9106-0012-013F	S	0.01	0.01
9106-0012-014F	S	0.02	0.14
9106-0012-015F	S	0.01	0.01

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)
9106-0012-001F	S	0.01
9106-0012-002F	S	0.02
9106-0012-003F	S	0
9106-0012-004F	S	0.01
9106-0012-005F	S	0.03
9106-0012-006F	S	0.01
9106-0012-007F	S	0.02
9106-0012-008F	S	0.01
9106-0012-009F	S	0
9106-0012-010F	S	0.01
9106-0012-011F	S	0
9106-0012-012F	S	0.01
9106-0012-013F	S	0
9106-0012-014F	S	0.03
9106-0012-015F	S	0

DQA Surface Soil Report

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	15	N/A	N=13
Mean (SOR)	0.01	N/A	0
Median (SOR)	0.01	N/A	N/A
Std Dev (SOR)	0.01	N/A	0.05
High Value (SOR)	0.03	N/A	N/A
Low Value (SOR)	0.00	N/A	N/A