**FINAL REPORT**

# SITE INVESTIGATION/ REMEDIAL INVESTIGATION – NON-RADIOLOGICAL

## VOLUME 1 OF 19 (TEXT AND TABLES)

## GPU NUCLEAR, INC. OYSTER CREEK NUCLEAR GENERATING STATION

## U.S. ROUTE NO. 9 FORKED RIVER, NEW JERSEY

*Prepared for:*
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January 31, 2000

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**CERTIFICATION:**

**I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information, and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13.**

Typed/Printed Name **Sander Levin**

Title **Acting Site Director – Oyster Creek Nuclear Generating Station**

Signature _____

Date _____

Sworn to and Subscribed Before Me on this _____

Date of _____ 2000

_____

Notary

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## 1.1 PROJECT BACKGROUND

URS Greiner Woodward Clyde (URSGWC) was retained to provide environmental services at the Oyster Creek Nuclear Generating Station (OCNGS or the Site). The Site, owned by Jersey Central Power and Light Company (JCP&L) doing business as GPU Energy, is located on US Route 9, Forked River, Ocean County, New Jersey (see Figure 1). The Site is operated by GPU Nuclear (GPUN), a subsidiary of GPU, Inc.

This report (Report) presents the results of the Site Investigation (SI) and Remedial Investigation (RI) for non-radiological concerns conducted at the Site in August, September, November and December 1999, and January 2000. The SI and RI were conducted as part of the due diligence associated with the sale of OCNGS as well as to anticipate the potential requirements of compliance with the Industrial Site Recovery Act (ISRA), if ruled applicable to OCNGS. The scope of work for the SI/RI was based on information obtained from a Preliminary Assessment (PA) conducted from July 1998 through December 1999, the results of which are presented in the Preliminary Assessment Report (PAR), dated December 20, 1999. The PAR was submitted to the Site Remediation Program of the New Jersey Department of Environmental Protection (NJDEP) on December 23, 1999.

## 1.2 REPORT ORGANIZATION

This document is organized into the following sections:

- Section 1 Introduction
- Section 2 Site Background
- Section 3 Field Activities
- Section 4 Lab Analyses
- Section 5 Analytical Results for Potential Areas of Concern
- Section 6 Ecological Evaluation
- Section 7 Summary/Recommendations
- Section 8 AOCs Requiring Remediation
- Section 9 Limitations
- Section 10 References

The results of the SI/RI described herein address only the non-radiological environmental conditions at the OCNGS.

## 1.3 PROJECT OBJECTIVE

The objective of the SI/RI was twofold, as described below:

First - to determine, through sampling and laboratory analysis, if non-radiological contaminants are present at the Site above any of the applicable remediation standards; and,

Second - to delineate the horizontal and vertical extent of non-radiological contamination identified at the Site under the first objective in order to obtain sufficient information to prepare a Remedial Action Work Plan (RAW) based on the results.

The RAW is provided to NJDEP with this document.

The project objective was accomplished with the implementation of a field investigation which consisted of the following activities:

- the collection and laboratory analysis of hand tool (hand auger, shovel, stainless steel spoon) soil samples;
- the collection and laboratory analysis of Geoprobe® soil samples;
- the installation and development of groundwater monitoring wells;
- the collection and laboratory analysis of groundwater samples from new and existing groundwater monitoring wells;
- the collection and analysis of Geoprobe® groundwater samples;
- the performance of an ecological evaluation, including the collection and laboratory analysis of sediment samples and surface water; and
- the closure of one underground storage tank with associated soil sampling.

The field procedures are discussed in Section 4.

## 1.4 SUMMARY OF AOCS

The PA conducted at the Site identified 137 Areas of Concern (AOCs). AOCs identified in the PAR are summarized in Table 1 along with the proposals for investigation or no further action (NFA), as appropriate. AOCs identified in the PAR are shown on the following figures:

Figure 2 Areas of Concern - Western Portion of Site
Figure 3 Areas of Concern - Eastern Portion of Site
Figure 4 AOC-15: Transformer Locations
Figure 5 AOC-17: Discharge Locations
Figure 6 AOC-23: Hazardous Material Storage Areas

NFA was proposed in the PAR for 77 of the 137 AOCs. Two of the AOCs at which NFA was proposed in the PAR were investigated during the SI/RI (AOCs- 21A and –21B). AOC-21A, the South Well, was investigated to confirm that the historical diesel fuel release from the underground transfer line (AOC-5A) from the Main Oil Storage Tank (AOC-1A) to the Emergency Diesel Generator Building had not impacted the South Well. AOC-21B was investigated to confirm that methyl tertiary-butyl ether (MTBE) detected in groundwater in the area of the Gasoline and Diesel Fuel ASTs (AOC-1G) located east of the North Well had not impacted the North Well. The potential AOCs at which no further action was proposed in the PAR and which were not investigated during the SI/RI are not discussed further in this Report.

## 2.1 SITE DESCRIPTION

For the purposes of discussion, the property can be divided into the developed portion of the site located within the "horseshoe" formed by the Intake and Discharge Canals west of Route 9 (identified as the OCNGS), and the area located east of Route 9 which is primarily heavily vegetated and undeveloped (Figure 1).

## 2.2 SITE OPERATIONS

**Western Portion of Property**:

OCNGS consists of a single boiling-water nuclear reactor and a turbine-generator to produce electrical power. This equipment and auxiliary support structures are located within the area bounded on the east by U.S. Route 9 and on the north, south and west by the Intake/Discharge Canal.

Three basic steps are involved in the process of producing electricity at the OCNGS. First, heat produced by fission in the nuclear reactor converts high-purity water to steam. Second, the steam is used to drive a turbine so that some of the energy in the steam is converted to mechanical energy. Third, the turbine is connected to a generator which converts the mechanical energy of the rotating turbine into electrical energy.

Saltwater from Barnegat Bay is used to cool the steam exhausted from the turbine and to condense the steam back into water. This condensed high-purity water is returned from the main station condensers to the heat source to be converted into steam again to continue to drive the turbine.

**Eastern Portion of Property:**

The eastern portion of the site is primarily heavily vegetated and largely undeveloped. JCP&L/GPUN have used the property in the following manner:

1. To deposit excavated/dredged soil and sediment during the construction of the Intake and Discharge Canals for the OCNGS during the 1960s.
2. As a source of topsoil for re-vegetation projects on and around the OCNGS.
3. As an Environmental Laboratory (in buildings formerly located on the property) from 1975-1988.
4. To deposit dredged material resulting from periodic maintenance dredging in the Intake and Discharge Canals. This material was all deposited at the location of the existing 17.5 acre upland Confined Disposal Facility (AOC-24) during dredging projects in 1978, 1984 and 1997 (Figure 3).
5. As a location for environmental monitoring activities including continuous air monitoring, groundwater monitoring and the planting of gardens to provide vegetables for radiological analyses.

6. The Barge Unloading Facility (AOC-4E), located along the south shore of Oyster Creek (Discharge Canal) adjacent to U.S. Route 9, has been used to deliver large equipment components, such as the turbine rotor, to the OCNGS. This facility is currently used on an intermittent basis by the Ocean County Engineering Department to load reef construction materials (concrete and used tires) onto vessels for delivery to artificial reefs in the Atlantic Ocean.

## 2.3 SITE HISTORY

**Western Portion of Property or OCNGS:**

The property inside the "horseshoe" (bounded on the east by US Route 9, and on the north, south and west by the Intake and Discharge Canals), was purchased by JCP&L, a subsidiary of GPU, Inc., from Norman C. and Elsie H. Finninger (husband and wife) on January 28, 1961. This portion of the site is where the OCNGS is presently located. The approximately 132-acre property is located in Lacey Township as a portion of Block 1001, Lot 4 (Deed Book 2144, pg. 484). Approximately 12.01 acres of land located in Ocean Township, along the south bank of Oyster Creek (Block 41, Lot 43), was also purchased as part of that transaction. Prior to construction of the OCNGS, the site was vacant and undeveloped.

JCP&L purchased the land for the purpose of constructing the OCNGS. JCP&L initiated construction of the OCNGS in December 1963 and commercial operation began on December 23, 1969.

The OCNGS was operated by JCP&L until 1980 when GPUN, another subsidiary of GPU, Inc., assumed responsibility for operations. GPUN continues to operate the OCNGS for JCP&L, doing business as GPU Energy.

**Eastern Portion of Property:**

The "Finninger Farm Property", located across US Route 9 and east of the OCNGS, was purchased by JCP&L from NOR-RU-EL, Inc. on June 28, 1966. The 548.07 acre property is located in Lacey Township as Block 100, Lots 1-20 & 20.01 and Ocean Township as Block 63, Lot 7 (Deed Book 2600, pg. 352). Prior to that purchase, the portion of the property located in Lacey Township (536.03 acres) was used for the raising of beef cattle while the 12.04 acre parcel located in Ocean Township was undeveloped.

JCP&L purchased an undeveloped 25.25-acre parcel (Lacey Township Block 101, Lot 1), located adjacent to the north side of the Finninger Farm Property, from Mayer Construction Company on March 8, 1971 (Deed Book 3110, pg. 357).

As part of the land acquisition for the construction of the Intake Canal for the OCNGS, JCP&L purchased a 2.01-acre undeveloped parcel (Lacey Township Block 138, Lot 2) from Charles R. Pearl and Marie D. Pearl on January, 18, 1966 (Deed Book 2555, pg. 411), and an undeveloped lot comprising 1.01 acres (Lacey Township Block 139, Lot 11) from Wilnor Realty Company on November 17, 1965 (Deed Book 2539, pg. 369).

## 2.4 ENVIRONMENTAL SETTING

### 2.4.1 Regional Geology

Site geology has been extensively investigated with a long history of core sampling, groundwater level measurements and groundwater sampling and analysis that began with a preliminary survey in 1960. Surface elevation in the vicinity of plant structures is 23 feet (ft) above mean sea level (msl). A stratigraphy typical of the Atlantic Coastal Plain physiographic province is found at OCNGS.

The Site lies within the Coastal Plain Physiographic Province. The regional stratigraphy includes beds of sand, gravel, clay, and marl dipping gently to the southeast. These Tertiary age coastal plain deposits are overlain by more recent sands and gravels. The Oyster Creek region is underlain by three stratigraphic units: The Cape May (Pleistocene age – 1-2 million years before present), Cohansey (Miocene age – 7-25 million years before present), and the older Kirkwoord (Miocene age) Formations.

The Cape May Formation has an average thickness of 40 feet and is comprised of a light gray to tan, medium to fine sand, with trace silt and a coarse sand (Woodward-Clyde Consultants, 1982). It is poorly compacted and commonly contains a thin, shallow black clay bed in coastal areas (URSGWC, 1999).

The Cohansey Formation lies beneath the Cape May Formation. Its average thickness is 60 feet and is primarily composed of a red-brown and tan, medium to fine sand, trace silt, coarse sand, and some coarse to fine gravel. Lenticular beds of clay are sometimes found and the lower portions are densely compacted (Woodward-Clyde Consultants, 1982).

The Cohansey is underlain by the Kirkwood Formation consisting of light gray to yellow-brown micaceous ilmenitic, lignitic, very fine to fine grained quartz sand, and some coarse to fine gravel. It is densely compacted and extends from a depth of about 100 feet to at least 250 feet below the surface. (URSGWC, 1999)

### 2.4.2 Regional Hydrogeology

Both the Cape May and Cohansey formations contain unconfined aquifers. An artesian aquifer exists in the Kirkwood Formation. Occasional clay layers in the Cape May and Cohansey cause slightly artesian conditions in localized areas, but, in general, these two formations communicate hydrologically. A clay layer separates the Kirkwood from the Cohansey. The clay layer acts as a confining layer and artesian heads as high as 22 feet above msl have been found in the Kirkwood (URSGWC, 1999).

On a regional scale, groundwater flows generally to the southeast toward the coast, following the trend of the coastal basin sedimentary bedding. Water supplies in the area are derived from wells. These wells are generally 60 to 70 or more feet in depth (into the Cohansey), penetrating at least one clay boundary to preclude contamination from salt water intrusion or leachate from the many septic tanks in the area. The deeper wells penetrate the Kirkwood aquifer and yield

higher quality water. There are also many shallower wells that provide domestic water supplies, mainly for irrigation of lawns (Woodward-Clyde Consultants, 1984)

### 2.4.3 Site Geology

There are five stratigraphic units found at the Site (exclusive of fill). These include (from shallow to deep):

- the Cape May Formation;
- the Upper Clay;
- the Upper Cohansey Formation;
- the Lower Clay; and,
- the Kirkwood Formation

Descriptions of these formations presented below are based on boring logs from this and previous investigations, and previous reports; principally the "Geotechnical Study, Proposed Radwaste and Off-Gas Buildings" (February 1975), the ""Phase II Report, Ground Water Monitoring System" (March 1984), and additional boring log review.

**Fill**

Description: The fill is a tan, medium to fine grained sand with trace to some silt. No evidence of soft sediment structures such as lenses of silt or coarse sand. The density is typically less than the Cape May. Based on the description of the fill, it appears likely that much of the fill is excavated Cape May.

Thickness: The fill thickness from soil boring logs varies from 0 ft to 38 ft below ground surface (bgs) (el. 23 ft to el. –15 ft). The maximum thickness of fill was in the borings closest to the Turbine Building. The maximum fill thickness is estimated to be 53 ft (el. –30 vs. surface elevation of +23 ft) in the vicinity of the Reactor Building. This is based on the depth of the excavation for these structures (no boring log was found indicating 53 ft of fill.).

**Cape May**

Description: The Cape May Formation is the youngest formation in the Oyster Creek Region. It is described as a light gray to tan medium to fine grained sand with trace to some silt and occasional coarse sand. It is generally poorly compacted.

Thickness: The Cape May Formation in the study area varies from 0 ft to 21.5 ft thick. The variation is largely due to the amount of material excavated and replaced by fill as part of the excavation process. The thickness of the Cape May where not excavated is generally in the range of 17 to 20 ft (presuming a ground surface elevation of 23 ft).

**Upper Clay**

Description: The description is as follows: stiff to hard, gray, plastic organic clay containing inclusions (also described as lenses or partings) of dense fine sand with trace to some organic silt. The deposits of fine sand within the Upper Clay layer have high relative densities and are believed to be in the form of lenses or inclusions. Some boring logs describe the "sand lenses"

as the dominant feature over a 1 to 5 ft. thickness. In the area southwest of the Turbine Building, approximately half of the total thickness of the Upper Clay, is silty sand (not clay).

Thickness: The Upper Clay is typically on the order of 15 to 18 ft (where not impacted by excavation). Early reports suggest a thinning trend from east to west. This trend is best observed by reviewing information from outside the study area, specifically boring logs from the area west of the Intake/Discharge Canals ("West Site") and preliminary data from the Route 9 area. These data suggest the Upper Clay may be as thick as 25 ft east of Route 9 to 0 ft at the "West Site". The lack of a map identifying the locations of these borings makes correlation difficult and very speculative. The suggestion is, however, that there is a thinning trend from east to west but that the Upper Clay is present at 17 ft +/- 3 ft throughout the study area. Alternatively, it is possible that the conclusions drawn by previous investigators are based on a classification of the gray silty sand found in some borings as Upper Cohansey. The conclusion of this study is that the gray silty sand /sandy silt in question is part of the Upper Clay.

**Cohansey Formation**

Description: Yellow-brown or tan, medium to fine sand with trace to some silt. Also contains pockets of coarse to fine sand, and occasional gravel and pockets of sandy silt. The lower portion of the Cohansey Formation was deposited in a beach or barrier bar environment, while the upper portion is a fluvial deposit. The upper portion can be identified by lower N-values (approximately 45) than the lower Cohansey (approximately 130).

Thickness: The thickness of the Cohansey is estimated to be approximately 60-75 ft. There is not enough data to identify a pattern of the thickness of this formation as with the Upper Clay.

**Lower Clay**

Description: The clay is a dense gray medium to fine sand containing a trace to some organic silt and layers or inclusions of very stiff to hard gray organic clay.

Thickness: The thickness of the lower clay is on the order of 10 to 20 ft. Again, there is very limited thickness information on this formation. The majority of the borings reviewed for this study terminate well above the Lower Clay.

**Kirkwood Formation**

Description: This is a medium to fine sand with trace silt. Casagrande and Casagrande (1968) reported two hard clay layers within the Kirkwood formation at elevations less than –198 ft.

Thickness: Unknown in the study area.

### 2.4.4 Site Hydrogeology

The overall site hydrogeology is dominated by three factors: 1) the regional groundwater flow, 2) the Intake/Discharge Canals; and 3) the partial excavation of the Upper Clay during construction, especially of the turbine and reactor buildings:

1. The regional flow direction is the direction of flow in the groundwater outside of the area of influence of the Canal. The regional flow direction of the Cape May, Cohansey, and Kirkwood Formations is toward the east, as shown in Figures 14 through 17.

2. The construction of the Canal has changed flow directions and increased the depth to groundwater in the Cape May. It has changed the flow direction from the generally eastward regional flow to flow in the direction of the Canal. The construction of the Canal has resulted in an approximately 6 ft increase in the depth to groundwater across the Site. Construction drawings indicate that the Canal pierces the Upper Clay in some places. Therefore, the flow in the Cohansey Formation is also influenced by the Canal with flow direction towards the Canal rather than in the generally eastward regional direction. The influence of the Canal on groundwater flow, both in the Cape May and the Cohansey, decreases with distance from the Canal. The effect of tidal variation on groundwater flow at the Site is minimal; according to Kennish and Lutz (1984), the mean tidal range at the mouth of Oyster Creek is 0.15 meters (5.9 inches).
3. Water level measurements from wells screened in the Cape May Formation (shallow wells) and wells screened in the Cohansey Formation (intermediate wells) indicate that where these Formations are separated by the Upper Clay, a downward vertical gradient exists. The Upper Clay has been removed during the excavation of major structures at the Site. Because of the downward gradient, this excavation of the Upper Clay has resulted in a localized direct connection between the Cape May and the Cohansey Formations.

According to Woodward-Clyde Consultants (1984), the hydraulic conductivity of the Cape May Formation was estimated to be on the order of $2x10^{-4}$ ft/sec. Using the measured hydraulic gradient of 0.02 ft/ft and the assumed effective porosity of 25%, the estimated groundwater flow velocity in the Cape May Formation is in the range of 1.4 ft/day.

In the Cohansey Formation, the hydraulic conductivity was estimated to be on the order of $2.7x10^{-4}$ ft/sec. Using the measured hydraulic gradient of 0.01 ft/ft and the assumed effective porosity of 25 %, the estimated groundwater flow velocity in the Cohansey Formation is on the order of 0.9 ft/day.

## 3.1 FIELD MOBILIZATION

Before the site investigation activities, a site walk-over was conducted with GPUN and URSGWC personnel so that GPUN representatives could clear proposed sample locations, or as necessary, relocate proposed sample locations. NAEVA Geophysics, Inc. (NAEVA), of Tappan, New York, was contracted to mark out detectable subsurface utilities in the vicinity of the proposed sample locations. Based on the results of the NAEVA activities, proposed sample locations were cleared, or relocated as necessary. The clearance of sample locations by GPUN representatives and NAEVA continued through the duration of the fieldwork.

All fieldwork was conducted in accordance with the site-specific Health and Safety Plan (HASP) and the Technical Requirements for Site Remediation (N.J.A.C. 7:26 E).

## 3.2 SAMPLE IDENTIFICATION

Samples collected in the SI/RI are designated by a three-part sample identification, as described below:

**Sample Identification Key**

| Sample Type | AOC Designation | Sample Location and Depth Interval |
|---|---|---|
| **SS** – Soil<br>**PX** – Post-excavation soil sample<br>**GW** – Groundwater<br>**SED** – Sediment<br>**SW** – Surface Water | Designation assigned in PAR. | Number indicates sample location within AOC; letter indicates sample depth interval. |

Examples are provided below:

- SS-1A-2A is a soil sample (**SS**-1A-2A) from AOC-1A (SS-**1A**-2A) from sample location 2 (SS-1A-**2**A), at the first depth interval (SS-1A-2**A**);
- SS-1A-2B is a soil sample (**SS**-1A-2B) from AOC-1A (SS-**1A**-2B) from sample location 2 (SS-1A-**2**B), at the second depth interval (SS-1A-2**B**); and,
- GW-1A-W4 is a groundwater sample (**GW**-1A-W4) from AOC-1A (GW-**1A**-W4) from the well identified as W4 (GW-1A-**W4**).

## 3.3 SAMPLING ACTIVITIES

The sampling methods used for the SI/RI sampling activities are discussed in this section. A summary of sampling information for each sample location in the AOCs, including the matrix, sample ID, sample date, sampling method (i.e., hand tool, hand auger, etc.), analytical parameters, sampling interval or formation (for groundwater), and boring completion depths, is provided in Table 2. In order to present the sample locations clearly, the sample locations for the western portion of the Site are presented on two figures (Figures 7 and 8). Figure 7 presents sample locations for all areas of the Site west of Route 9 with the exception of those in the area north of the Northern Parking Area (AOCs-1G, -18B, and -21B). Sample locations collected in AOCs-1G, -18B, and -21B are shown on Figure 8. Sample locations for the eastern portion of

the Site are shown on Figure 9. Sample locations for transformers (AOC-15) are shown on Figure 10.

Descriptions of the procedures used for field activities are provided in Appendix A. Table 2 presents information pertaining to samples collected during the SI/RI, including the depth intervals and sampling method. Sample quality assurance/quality control, analytical methodology and chain of custody procedures were performed in accordance with the NJDEP Field Sampling Procedures Manual (1992).

### 3.3.1 Hand Tool Soil Sampling

Soil samples were collected with a hand tool (e.g., hand auger, shovel, stainless steel spoon) from 34 AOCs. Soil samples collected via hand tool were collected from depths ranging from 0.5 ft bgs to 5.5 ft bgs.

Hand tool soil samples were collected with a hand auger, shovel or stainless steel spoon that had been decontaminated following the procedures outlined in the NJDEP Field Sampling Procedures Manual. The samples were described and classified in general accordance with the Unified Soil Classification System (USCS) and field screened for headspace readings using a photoionization detector (PID).

### 3.3.2 Geoprobe® Soil Sampling

Soil conditions at the Site were assessed through the advancement of Geoprobe® direct-push borings. Direct-push soil sampling was conducted by TerraProbe, Inc., of Lumberville, Pennsylvania (New Jersey Certification No. B0292). URSGWC field inspectors observed the direct-push sampling work, and recorded pertinent information on soil boring logs (Appendix B). Soil samples were collected with a Geoprobe® from the following locations:

- AOC-1A Main Oil Storage Tank
- AOC-1G Gasoline and Diesel Fuel Above Ground Storage Tanks (ASTs)
- AOC-1I Torus Tank
- AOC-2A Waste Drop Tank
- AOC-2D Former Fuel Oil UST At Eastern Portion of Site (Former Farmhouse)
- AOC-16D Historical Storage of Chromate Solution near New RadWaste Building
- AOC-16E Historical Storage of Chromate Solution near Drywell Processing Center
- AOC-16F Historical Storage of Chromate Solution near Old RadWaste Building

Soil samples collected via soil borings were collected from depths ranging from 0.5 ft bgs to 19.5 ft bgs.

Each soil boring was sampled continuously using 4-foot direct-push soil samplers driven to the desired depth. The samples were described and classified in general accordance with the USCS and field screened for headspace readings using a PID.

### 3.3.3 Split-Spoon Soil Sampling

Soil conditions at the Site were assessed through the advancement of hollow-stem augers and split-spoons. Drilling was conducted by CT&E Environmental Services Inc. (CT&E), of West Creek, New Jersey (New Jersey Certification No. M1343). URSGWC field inspectors observed drilling activities and recorded pertinent information on soil boring logs (Appendix B).

Split-spoon samples were collected for stratigraphy from the following AOCs:

- AOC-1A Main Oil Storage Tank
- AOC-1G Gasoline and Diesel Fuel ASTs
- AOC-1I Torus Tank
- AOC-15K Transformer - West Side of Turbine Building
- AOC-24 Upland Confined Disposal Facility

Split-spoon samples were collected for chemical analyses only from AOC-1A, the Main Oil Storage Tank. Soil samples collected via soil borings were collected for chemical analyses from depths ranging from 17.5 ft bgs to 18.0 ft bgs.

Borings to collect split-spoon samples were advanced by hollow-stem augers. Each soil boring was sampled continuously using 2-inch split-spoon driven to the desired depth. The samples were described and classified in general accordance with the USCS and field screened for headspace readings using a PID.

Soil borings were completed as monitoring wells.

### 3.3.4 Monitoring Well Installation

A total of nine single-cased monitoring wells were installed in the overburden soils to determine groundwater elevations and to obtain groundwater samples for field and laboratory analyses. Monitoring wells were installed at the following AOCs.

- AOC-1A Main Oil Storage Tank
- AOC-1G Gasoline and Diesel Fuel ASTs
- AOC-1I Torus Tank
- AOC-15K Transformer - West Side of Turbine Building
- AOC-24 Upland Confined Disposal Facility

Six monitoring wells were installed west of Route 9 (MW-1I-1A, MW-1I-2A, MW-15K-1A, MW-1A-1A, MW-1A-2A and MW-1G-1A) and three monitoring wells were installed east of Route 9 (MW-24-1A, MW-24-2A and MW-24-3A). The monitoring wells were installed at depths ranging from 16 ft bgs to 24.20 ft bgs. The locations of the monitoring wells installed at the western portion of the Site are shown on Figures 7 and 8. Locations for wells at the eastern portion of the site are shown on Figure 9.

Monitoring well installation was conducted by CT&E under the supervision of URSGWC personnel. Monitoring well soil boring logs are provided in Appendix B. Samples of subsurface soil were obtained for logging stratigraphy during the advancement of borings to be completed as

monitoring wells using the procedures for split-spoon sampling provided in Appendix A. Borings for monitoring well installation were advanced by hollow-stem auger method; therefore no drilling fluids were used and the disturbance to geologic materials encountered was minimal.

Following the installation of the monitoring wells, the wells were surveyed by Sudhakar Company, Inc. (Sudhakar), a New Jersey licensed surveyor, of Pennsauken, New Jersey. The surveying was conducted in accordance with N.J.A.C. 7:26E. Documentation pertaining to the monitoring wells, including Well Construction Diagrams, and Monitoring Well Certification Form As and Form Bs are provided in Appendix C.

### 3.3.5 Monitoring Well Development

The nine single-cased monitoring wells installed at the Site were developed by CT&E and/or URSGWC. Development was performed following monitoring well installation to improve the hydraulic communication between the formation and monitoring well and to help ensure that groundwater samples are representative of the surrounding aquifer.

The development process was accomplished by causing the groundwater collected inside the screen of the monitoring well to move vigorously in and out through the screen to move the fines into the monitoring well where they could be removed. Monitoring wells were developed until a relatively turbid-free discharge was observed flowing from the monitoring well or a maximum of one hour if the monitoring well did not produce relatively turbid-free water, whichever occurred first. Groundwater sampling of newly installed monitoring wells was conducted a minimum of two weeks after well installation and development.

### 3.3.6 Groundwater Monitoring Well Sampling

Groundwater samples were collected at existing and new monitoring wells to evaluate the potential for impact to groundwater. Monitoring well groundwater sampling was used to evaluate the following AOCs:

- AOC-1A Main Oil Storage Tank
- AOC-1G Gasoline and Diesel Fuel ASTs
- AOC-1I Torus Tank
- AOC-15K Transformer - West Side of Turbine Building
- AOC-16D Historical Storage of Chromate (near New RadWaste)
- AOC-16E Historical Storage of Chromate (near Drywell Processing Center)
- AOC-24 Upland Confined Disposal Facility

Groundwater samples collected at monitoring wells W-12 and W-13 were used to evaluate both AOC-16D and AOC–16E due to their proximity to these wells. The results of field tests and purging and sampling data for each well are presented on Groundwater Sampling Data Sheets provided in Appendix D.

### 3.3.7 Groundwater Geoprobe® Sampling

Groundwater was obtained using mechanically- or hydraulically-driven, small diameter direct-push sampling device. Direct-push groundwater sampling was conducted by TerraProbe, Inc., of Lumberville, Pennsylvania (New Jersey Certification No. B0292) under the supervision of URSGWC personnel. Groundwater samples were collected from first water with a Geoprobe®. Geoprobe® groundwater samples were collected from AOC-1G, Gasoline and Diesel Fuel ASTs for screening purposes.

Groundwater samples from each location were submitted to an off-site laboratory for analyses. In addition, screening samples were collected for on-site analysis in a mobile laboratory. Mobile laboratory services were provided by Veritech Laboratories, of Fairfield, New Jersey. Procedures associated with the mobile laboratory are provided in Appendix E. The analytical results obtained from the mobile laboratory are provided in Appendix F.

### 3.3.8 Potable Well Sampling

Groundwater samples were collected at the two existing production wells, the South Well and the North Well (AOC-21A and AOC-21B, respectively). The South and North Wells are screened in the Kirkwood Formation.

### 3.3.9 Measuring Groundwater Elevations in Monitoring Wells

Groundwater elevations were measured at wells located at the western and eastern portions of the Site for evaluating groundwater flow direction and for determining the appropriate purge volumes during groundwater monitoring well sampling activities. An electric water level indicator was used to obtain the groundwater elevations. The groundwater elevation was calculated for each monitoring well by measuring the depth to groundwater from the reference point and subtracting this depth from the surveyed elevation of the reference point.

A synoptic round of groundwater elevations were measured form monitoring wells at the Site on January 3, 2000 (see Table 3). Groundwater flow directions for the Cape May, Cohansey and Kirkwood Formations are presented on the following figures:

Figure 13 Cape May Groundwater Contour Map, Western Portion of Site
Figure 14 Cape May Groundwater Contour Map, Eastern Portion of Site
Figure 15 Cohansey Groundwater Contour Map, Western Portion of Site
Figure 16 Cohansey Groundwater Contour Map, Eastern Portion of Site
Figure 17 Kirkwood Groundwater Contour Map, Eastern Portion of Site

### 3.3.10 Surface Water Sampling

Surface water samples were collected from Cedar Creek and the Intake/Discharge Canals for the ecological evaluation conducted as part of the SI/RI. Documentation pertaining to the ecological

evaluation is provided in Appendix G. Surface water samples were collected directly in sample containers. Sample locations were accessed either by boat or by foot.

### 3.3.11 Sediment Sampling

Sediment samples were collected from the surface layer of Cedar Creek and the Intake/Discharge Canal after surface water samples were collected. A petite Ponar dredge sampling device was utilized for the collection of the sediment.

### 3.3.12 Underground Storage Tank Closure/Soil Investigation

A 550-gallon underground storage tank (UST) formerly used to store heating oil near the old farmhouse (AOC-2D) was closed by removal on December 21, 1999. Fieldwork associated with the closure of the UST was conducted on December 21, 1999 by A&J Construction Company, of West Long Branch, New Jersey. A description of the tank closure activities is presented below:

- Prior to the initiation of tank closure field activities, a construction permit was obtained from Lacey Township.
- The UST was located using a geophysical survey.
- The fieldwork included exposing, cutting open, and cleaning the UST.
- The UST contained approximately 11" of product which was pumped out by A&J Construction personnel prior to the cleaning and removal of the UST. The product removed from the tank was disposed of off site.
- No evidence of contamination (staining or odors) was observed.
- Following the removal of the UST from the excavation, a Lacey Township representative inspected the condition of the UST and approved the filling of the excavation. The UST was in good shape, with no holes or pitting observed.
- An inspection of soil excavated during closure activities did not reveal any staining or odors indicative of a release.
- The excavation was backfilled with clean imported fill.

Photographs of the tank closure activities are provided in Appendix H. Soil sampling results are discussed in Section 5.8.

## 4.1 ANALYTICAL PARAMETERS

The analytical parameters identified for each AOC were selected to satisfy the requirements at N.J.A.C. 7:26E-2 (Table 2-3), if applicable, or are based upon the contaminant(s) of concern at each AOC. Samples were analyzed for the following parameters, based upon the contaminant(s) of concern at each AOC: total petroleum hydrocarbons (TPH), volatile organic compounds with a library search (VOCs+10), volatile organic compounds (VOCs), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), semivolatile organic compounds with a library search (BN/AEs+25), base-neutral compounds with a library search (BNs+10), base neutral compounds (BNs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), Priority Pollutant Metals (PP Metals), total and hexavalent chromium, and iron. In addition, surface water and sediment samples were analyzed for total organic carbon (TOC). The analytical parameters and methods for which samples from each AOC were analyzed are presented in Table 4.

The analytical parameters for each sample are presented in Table 2 (Sampling Summary Table). As indicated in Table 2, samples for certain parameters were collected at numerous locations, but held for analysis pending the results of analysis for total petroleum hydrocarbons. The parameters which were held pending the TPH results include VOCs+10, PAHs, PP Metals, and PCBs. Table 2 identifies both the parameters analyzed and those which were not analyzed based on the TPH results. The sample locations at which samples for which the Table 2 identifies which samples had "contingent" parameters for which sample was collected, and which of these parameters were ultimately analyzed. The results of the parameters which were analyzed are summarized in Section 5.0. A description of the sample locations and the analytical results are provided in Appendix I.

The analytical results for soil and groundwater samples are presented in Table 5 and Table 6, respectively. Soil analytical results are presented in comparison to the most stringent of NJDEP Residential and Non-Residential Direct Contact Soil Cleanup Criteria (RDC and NRDC, respectively) and the Impact to Groundwater (IGW) Soil Cleanup Criteria (NJDEP Criteria) (last revised May 12, 1999). The most stringent criteria of the NJDEP RDC, NRDC and IGW Criteria are identified as "Unrestricted Use Soil Cleanup Criteria". Groundwater analytical results are compared to the higher of the NJDEP Groundwater Quality Criteria and Practical Quantitation Limits ("GWQS"). Table 7 presents a summary of soil and groundwater samples with compounds detected at concentrations greater than their respective criteria.

Analytical laboratory work was performed by Severn Trent Laboratories (STL), of Whippany, New Jersey (New Jersey Certification No. 14530), STL, of Monroe, Connecticut (New Jersey Certification No. 46410), and STL-Envirotech, of Edison, New Jersey (New Jersey Certification No. 12028). Analytical laboratory work conducted for the UST closure activities was performed by Veritech Laboratories, of Fairfield, New Jersey (Certification No. 14622). On-site mobile laboratory services were provided by Veritech Laboratories.

## 4.2 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Field duplicates, blanks, and site-specific matrix spike (MS) and matrix spike duplicates (MSDs) were analyzed for the same parameters as the samples collected that day. The results of the laboratory analysis of duplicate samples are presented along with the associated soil and groundwater samples in Table 5 and Table 6, respectively. The analytical results for QA/QC blanks and duplicates for soil and groundwater are presented in Table 8 and Table 9, respectively.

## 4.3 DATA VALIDATION

The laboratory data packages were examined by qualified URSGWC personnel trained in data validation. Approximately 10% of the samples were reviewed for data validation; the remainder were reviewed for reporting accuracy. Copies of the URSGWC Data Validation Reports are included as Appendix J. Copies of the complete analytical data reports are provided in Appendix K (Volumes 4 through 19). Analytical data from the SI/RI will be submitted in the HAZSITE Electronic Deliverables format following the submission of the SI/RI and RAW.

This section presents a discussion of the AOCs at which sampling or other investigation activities were conducted and the analytical results obtained from the SI/RI. A detailed description of the sampling and analytical results for each AOC is provided in Appendix I.

Sample locations for the western portion of the Site are shown on Figures 7 and 8. Sample locations for the eastern portion of the Site are shown on Figure 9. Transformer sample locations are shown on Figure 10. Those compounds detected above their respective criteria are shown on Figures 11 and 12.

The concentrations reported in this section may include compound concentrations identified as "estimated" by either the laboratory or the URSGWC Data Validation. Compounds which have been qualified as estimated are identified on the above-referenced analytical data summary tables. The explanations for qualifiers assigned to results can be obtained from the Data Validation Reports for those samples validated by URSGWC personnel (Appendix J), or from the analytical data packages provided as the last appendix to this document (Appendix K).

## 5.1 AOC-1A/4A MAIN OIL STORAGE TANK (AND FUEL OIL TANK UNLOADING AREA)

The Main Oil Storage Tank is an aboveground storage tank (AST) with a storage capacity of 75,000 gallons. It is used to store No. 2 fuel oil for the station's two boilers and emergency diesel generators. The AST was installed during the construction of the OCNGS in the 1960s. A new liner was applied to the interior of the tank in December of 1983. The AST is surrounded by a poured-concrete moat with a chemically resistant coating which was applied in 1992. The volume within the dike is sufficient to contain the entire contents of the tank plus normal amounts of accumulated rainwater. The moat is equipped with a drain for removing the rainwater. The tank oil level is checked three times per day (once per shift).

The tank truck delivery area for the Main Oil Storage Tank is located on the eastern side of the concrete dike which surrounds that tank. The area in which the oil delivery truck parks is paved and has a concrete pad which slopes to a catch basin within the pad to retain any oil spilled during the delivery. The catch basin has a capacity of approximately 75 gallons. Rainwater in the catch basin discharges to an adjacent concrete-walled pit. The pit is filled with gravel and does not have a sealed bottom. The concrete pad, catch basin and concrete pit were installed within the last ten years.

The environmental concern at this AOC was the possibility that fuel oil may have been released during unloading operations and impacted the soil via the unlined bottom of the concrete box to which the catch basin in the fuel loading/unloading area drains. In addition, spills of fuel oil which possibly may have occurred during delivery activities prior to the construction of the concrete pad may then have also impacted the soil.

### 5.1.1 Soil Sampling

Soil samples were collected adjacent to and beneath the existing secondary containment area because the secondary containment did not exist for the life of the AST. Sampling of AOC-1A also addressed the potential concerns for the loading/unloading area and associated unloading

area drain (AOC-4A), the buried pipeline between the AST and the boiler house (SS-1A-5A/B), and the moat drain area (SS-1A-6A/B).

Two sample locations (SS-1A-1 and SS-1A-4) utilized existing access points in the base of the secondary containment for the Main Oil Storage Tank. The access points are areas at which flanged, sealed and bolted covers were installed during the installation of the secondary containment to allow evaluation of the subsurface soils at the downgradient side of the Main Fuel Oil Storage Tank. These access points also straddle the fuel oil pipeline that leads from the AST to the boiler house.

Groundwater monitoring wells MW-1A-1A and MW-1A-2A were installed northwest and southwest of the Main Oil Storage Tank. Soil samples were collected at 0.5 ft above groundwater from the monitoring well soil borings to evaluate the potential impact to soil.

Fourteen soil samples and one duplicate soil sample were collected in AOC-1A and were analyzed for TPH, VOCS+10, and/or BN/AEs+25.

### 5.1.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Main Oil Storage Tank (Unloading Area) identified TPH at concentrations ranging from not detected (<25 ppm) to 510 ppm. The detected concentrations do not exceed the NJDEP Criteria. VOCs were not detected above the method detection limits in the three samples analyzed for VOCs. One target BN/AE was identified in one sample at a concentration of 0.084 ppm; Tentatively Identified Compounds (TICs) were identified at a total concentration of 2.02 ppm. The detected concentrations do not exceed the NJDEP Criteria.

### 5.1.3 Groundwater Sampling

Groundwater samples were collected from wells MW-1A-1A and MW-1A-2A, located northwest and southwest, respectively, of AOC-1A. The wells were installed in the Cape May Aquifer to investigate the potential impact to groundwater downgradient of this AOC.

Two groundwater samples were collected to evaluate AOC-1A; the samples were analyzed for VOCs+10 and BNs+15.

### 5.1.4 Groundwater Analytical Results

The laboratory analysis of groundwater samples collected at the Main Oil Storage Tank (Unloading Area) did not identify VOCs above the method detection limits. Target BNs were not detected above the method detection limits; BN TICs were detected in the two samples at total concentrations of 54.74 ppb and 125 ppb.

## 5.2 AOC-1D EMERGENCY DIESEL GENERATOR WASTE OIL TANK

The Emergency Diesel Generator Waste Oil Tank has a storage capacity of 500 gallons and is designed to receive accumulated rainwater and oil, when present, from the sump in the Emergency Diesel Generator Tank Room. The Waste Oil Tank was installed during the

construction of the OCNGS in the 1960s. The Waste Oil Tank has not been used to collect oil or water since the Emergency Generator Oil Storage Tank was redesigned in 1991. The sealing of the roof of the tank room at that time effectively eliminated the accumulation of rainwater. The tank is located along the north wall on the outside of the Emergency Generator Building and is inside a concrete containment unit which is equipped with a concrete base and concrete containment walls. The volume within this containment is sufficient to contain the contents of the tank plus freeboard for accumulated rainwater.

The oil and water were typically removed by a contractor for off-site treatment and disposal. In some cases during early years of station operation, however, the oil and water were allowed to separate and the water was drained out to the area inside the containment. After a visual inspection confirmed that the water was oil-free, a valve was opened manually and the water was drained. The water drained via surface flow over asphalt-paved ground surface to the Discharge Canal.

In the late 1980s, piping was installed to direct accumulated rainwater further down the asphalt-coated canal bank.

### 5.2.1 Soil Sampling

Soil sampling was conducted to evaluate the potential for impact to soil from water drained from the secondary containment via the drain valve. The sample was collected at the location to which the drain would have discharged water prior to the installation of the piping in the 1980s. Staining was not observed on the ground surface in AOC-1D.

One soil sample was collected in AOC-1D; the sample was analyzed for TPH and VOCs+10.

### 5.2.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Emergency Diesel Generator Waste Oil Tank identified a TPH concentration of 1,610 ppm, which does not exceed the NJDEP Criteria. VOCs were not detected above the method detection limits.

### 5.2.3 Inspection and Photodocumentation

The containment in which the Emergency Diesel Generator Waste Oil Tank is located was inspected during the SI/RI. The inspection revealed that the containment is in good condition, with no evidence of deterioration or cracking. Photographs documenting the integrity of the Emergency Diesel Generator Waste Oil Tank are provided in Appendix F.

## 5.3 AOC-1E TURBINE DIRTY OIL TANK

The station maintains a Turbine Dirty Oil Tank which has a storage capacity of 15,000 gallons. The tank is located off the northwest corner of the Turbine Building. It is used to store lubricating oil from the Turbine system during station maintenance outages which may require the Turbine Lube Oil Main Tank to be drained. The tank is inside containment with a concrete base and concrete containment walls. The volume within this containment is of sufficient

capacity to contain the contents of the tank plus freeboard for accumulated rainwater. At the end of the maintenance work on the turbine system (typically less than 60 days in duration), the oil may be returned and a residual quantity of oil may remain in the Dirty Oil Tank. If oil is determined unacceptable for return to the Turbine Lube Oil Main Tank, it is removed and properly disposed.

The containment area has a drain valve to allow for the removal of accumulated rainwater. The water is inspected for visual contamination prior to draining.

All transfers between the Turbine Dirty Oil Tank and the Turbine Lube Oil Main Tank are conducted by underground pipeline. Potential releases from the pipeline are addressed in AOC-5B.

### 5.3.1 Soil Sampling

Soil sampling was conducted under the drain valve to evaluate the potential for impact to soil from water drained from the secondary containment via the drain valve. Staining was not observed on the ground surface in AOC-1E.

One soil sample was collected in AOC-1E; the sample was analyzed for TPH.

### 5.3.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Turbine Dirty Oil Tank identified TPH at a concentration of 56.2 ppm, which does not exceed the NJDEP Criteria.

### 5.3.3 Inspection and Photodocumentation

The containment in which the Turbine Dirty Oil Tank is located was inspected during the SI/RI. The containment is in good shape, with no evidence of deterioration or cracking. Photographs documenting the integrity of the Turbine Dirty Oil Tank are provided in Appendix F.

## 5.4 AOC-1F TURBINE LUBE OIL MAIN TANK AND PURIFICATION SYSTEM

The Turbine Lube Oil System provides oil to the turbine journal and thrust bearings, turbine governing and control mechanisms, valve operators and turbine turning gear. Associated with this system is a 9,250-gallon Turbine Lube Oil Main Tank and a 753-gallon Turbine Lube Oil Purification Unit (also identified as "Bowser"). Both tanks are located in the Turbine Oil Purification Equipment area, at the north end of the Turbine Building at the 0-foot elevation level. The oil level is checked once per shift and recorded on the operator's tour log. All transfers between the Turbine Dirty Oil Tank and the Turbine Lube Oil Main Tank are conducted by pipeline (see the discussion of AOC-1E). A vent from the Turbine Lube Oil Tank is located at the northwest corner of the Turbine Building. Staining on the side of the Turbine Building near the vent indicates an oily release from the vent.

### 5.4.1 Soil Sampling

Soil sampling was conducted in the area near the vent from the Turbine Lube Oil Tank to determine if discharges from the vent have impacted soil. The sampling was biased towards staining observed on the ground surface.

One soil sample was collected in AOC-1F; the sample was analyzed for TPH and BNs.

### 5.4.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Turbine Dirty Oil Tank identified TPH at a concentration of 169 ppm. Fifteen BNs were identified with concentrations ranging from 0.011 ppm to 0.15 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.5 AOC-1G GASOLINE AND DIESEL FUEL ASTs

One 6,000-gallon gasoline tank and one 2,000-gallon diesel fuel tank are located at the north end of the north parking lot. The ASTs were installed in 1993 and are used to store fuel for the on-site vehicles. Both tanks are double-walled, above ground concrete vault tanks with interstitial monitoring. Curbing is provided around the tanks to contain any spillage or leakage during fuel transfers. Deliveries are regularly observed by Transportation Department personnel. There have been no known discharges to the environment. Evidence of a release (e.g. staining) was not observed in AOC-1G.

One groundwater monitoring well (MW-1G-1A) was installed downgradient to sidegradient of AOC-1G to evaluate the potential impact to groundwater associated with AOC-1G. The monitoring well was installed in the Cape May Formation. Based on the analytical results of the groundwater sampling of MW-1G-1A, soil sampling and additional groundwater sampling was conducted via Geoprobe® to evaluate the extent of groundwater and soil contamination detected in monitoring well MW-1G-1A.

Soil and groundwater samples collected with Geoprobe® were analyzed by a mobile, on-site lab so that the sampling program could be focused towards delineating the identified contaminant (MTBE) in groundwater. The analytical data package obtained from the mobile lab is provided in Appendix F. In addition, soil and groundwater samples from the Geoprobe® locations were submitted to STL for confirmatory laboratory analysis. The analytical results of 1) the initial monitoring well sampling and analysis, 2) the soil and groundwater samples collected with the Geoprobe® and analyzed by the on-site lab, and 3) the soil and groundwater and groundwater samples collected with the Geoprobe® and shipped for off-site analysis are presented in this section.

A potable supply well (North Well) located west of monitoring well MW-1G-1A was sampled to determine if the well had been impacted by the MTBE. The investigation of the North Well, identified as AOC-21B, is discussed in Section 5.55.

Sample locations and analytical results for AOC-1G are shown on Figures 8 and 12.

### 5.5.1 Groundwater Monitoring Well Sampling

One groundwater sample was collected from monitoring well MW-1G-1A, installed in the Cape May Formation and located downgradient to sidegradient of AOC-1G. The sample was analyzed for VOCs+10, BNs+15, MTBE and TBA.

### 5.5.2 Groundwater Monitoring Well Analytical Results

One groundwater monitoring well (MW-1G-1A) was installed in the Cape May Formation generally downgradient of the gasoline and fuel oil ASTs. The analytical results of the sample from this well identified MTBE at a concentration of 1,000 ppb, above the NJDEP GWQS of 70 ppb. TBA, one target VOC, and several TICs were detected in this sample at concentrations in compliance with their respective NJDEP GWQS. BNs were not detected above the method detection limits.

Based on the analytical results of the groundwater sampling of MW-1G-1A, soil sampling and additional groundwater sampling was conducted.

### 5.5.3 Geoprobe® Groundwater Sampling

Based on the groundwater sampling of monitoring well MW-1G-1A, additional groundwater sampling and analysis was conducted to delineate the extent of the MTBE in groundwater. Geoprobe® groundwater samples were collected in the Cape May Formation in the area around the identified MTBE (monitoring well MW-1G-1A) to delineate the extent of groundwater contamination.

Twenty-one sample locations were originally proposed to delineate the MTBE in groundwater in AOC-1G; two additional locations were added to delineate the MTBE in groundwater north of the AOC. Several of the proposed locations (GW-1G-13, GW-1G-14, GW-1G-15, GW-1G-17, GW-1G-18, GW-1G-19, GW-1G-20, GW-1G-21) were not sampled because the area of contamination was delineated with the other locations, and these proposed sample locations were outside of the contaminated area.

Fifteen groundwater samples were collected with the Geoprobe® for on-site analysis for MTBE. Fifteen groundwater samples were collected from the same locations for off-site analysis for VOCs+10, MTBE, and TBA.

### 5.5.4 Geoprobe® Groundwater Analytical Results

The analytical results for MTBE concentration obtained from the on-site laboratory identified MTBE at concentrations ranging from not detected to 913 ppb.

The analytical results of groundwater samples analyzed by the off-site laboratory identified MTBE at concentrations ranging from not detected (<0.48 ppb) to 680 ppb. The analytical results for TBA identified TBA at concentrations ranging from not detected (<1.0 ppb) to 210 ppb. Other VOCs were detected in the groundwater samples at concentrations ranging from 1.2 ppb to 14.0 ppb. TICs were detected in six samples, with total concentrations range from

9 ppb to 74 ppb. MTBE was the only VOC detected above the NJDEP GWQS in samples analyzed by the off-site laboratory.

The preliminary investigation delineated the horizontal extent of MTBE in groundwater. Groundwater monitoring wells will be necessary to confirm the MTBE in groundwater and will be addressed in the RAW.

### 5.5.5 Soil Sampling

Soil sampling was conducted at AOC-1G to 1) evaluate the potential for impact to surface soil in the area of the gasoline AST, 2) to evaluate surface and subsurface soil in an area downgradient of the fuel pump area, and 3) to evaluate surface and subsurface soil north of the gasoline AST.

Soil samples were collected from six locations for on-site analysis for MTBE and for off-site analysis for VOCs+10, MTBE and TBA.

### 5.5.6 Soil Analytical Results

The analysis for MTBE in soil samples by the on-site laboratory did not identify MTBE above the method detection limit.

The analytical results for VOCs, MTBE, and TBA by the off-site laboratory identified no compounds above their method detection limits.

## 5.6 AOC-1I/4D TORUS TANK (AND UNLOADING AREA)

The Torus Tank is a 750,000-gallon AST which is located south of the North Gate Guard House. The Torus Tank was installed during the construction of the OCNGS in the 1960s for the storage of water used in the Torus system in the Reactor Building. The AST is located on a concrete pad and has no secondary containment.

From 1969 until 1983, chromate was added to the water in the Torus Tank to inhibit corrosion which could damage the integrity of the Torus system. The chromate was delivered by commercial tanker truck.

The unloading area and tank connections at which the chromate was delivered are located at an unpaved area with a soil/gravel ground surface at the eastern side of the AST.

### 5.6.1 Soil Sampling

Soil samples were collected adjacent to the AST. Sampling of AOC-1I also addressed the sampling for the loading/unloading area (AOC-4D). Soil sampling was conducted because spills of chromate which possibly may have occurred during delivery activities may then have impacted the soil. Staining was not observed on the ground surface in AOC-1I.

Eight soil samples were collected in AOC-1I and were analyzed for total and hexavalent chromium.

### 5.6.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Torus Tank and Unloading Area identified concentrations of total chromium ranging from 3.21 ppm to 9.5 ppm. The concentrations detected do not exceed the NJDEP Criteria. (Note: the criterion developed for trivalent chromium was used for comparisons for total chromium results since there is no criterion for total chromium). Hexavalent chromium was not detected above the method detection limit.

### 5.6.3 Groundwater Sampling

Groundwater samples were collected from two existing monitoring wells located generally downgradient of the AST. Groundwater samples were collected from existing wells W-5 and W-6, a nested pair of wells installed in the Cape May Formation and Cohansey Formation, respectively, and located generally downgradient of AOC-1I.

In addition, two monitoring wells were installed and groundwater samples were collected for laboratory analysis during this investigation. Monitoring wells MW-1I-1A and MW-1I-2A were installed northwest and southwest, respectively, of the Torus Tank to evaluate the potential impact to groundwater from releases from the Torus Tank. The wells were installed in the Cape May Formation.

Four groundwater samples and one duplicate sample were analyzed for total and hexavalent chromium.

### 5.6.4 Groundwater Analytical Results

The laboratory analysis of groundwater samples collected from existing wells W-5 and W-6 installed in the Cape May and Cohansey Formations, respectively, and MW-1I-1A and MW-1I-2A, recently installed in the Cape May Formation, identified total chromium concentrations ranging from 1.21 ppb to 23.6 ppb. The detected concentrations do not exceed the NJDEP GWQS. Hexavalent chromium was not detected above the method detection limits.

## 5.7 AOC-2A WASTE DROP TANK

The Waste Drop Tank (UST Registration No. NJ0043067, expiration 6-30-01) is a 2,000-gallon lined fiberglass UST which is located immediately outside the southern wall of the Material Warehouse. The floor drain system in the Material Warehouse is connected to the Waste Drop Tank. The floor drains have been directed to the Waste Drop Tank since the construction of the facility. Drums of petroleum and other chemical products are stored in the portion of the warehouse serviced by the drain system. The purpose of the Waste Drop Tank is to act as a secondary containment sump in the event of a spill or leak from the drums. As such, the tank was constructed with a chemically-resistant internal lining. The Waste Drop Tank has no discharge lines; any material collected in the tank would be pumped out within 48 hours for off-site disposal.

The tank was pumped out once when mop water from cleaning the warehouse floor was pushed into the floor drains and allowed to accumulate in the tank. Once discovered, the water was pumped out and disposed at an off-site wastewater treatment facility in accordance with

applicable regulations. The tank has not been used since that event. There have been no materials directed to the Waste Drop Tank, with the exception of the mop water which was a one-time event.

### 5.7.1 Soil Sampling

Soil sampling was conducted in the area of the Waste Drop Tank to determine if the water that accumulated in the tank in the past has impacted soil. Samples were collected at the east, south, and west sides of the UST at the tank invert (soil sample locations SS-2A-1A, -2A, and –3A, respectively). The soil sample proposed at the north side of the UST (soil sample SS-2A-4A) could not be collected due to health and safety concerns associated with underground utilities at the northern side of the UST.

Three soil samples were collected in AOC-2A and were analyzed for TPH, VOCs+10, and BN/AEs+25.

### 5.7.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Waste Drop Tank identified concentrations of TPH ranging from 27.5 ppm to 39.9 ppm. VOCs were not detected above the method detection limits. Two target BN/AEs were identified in one sample at concentrations of 0.0088 ppm and 0.011 ppm. TICs were detected in two samples at total concentrations of 0.380 ppm and 3.07 ppm. The concentrations detected do not exceed the NJDEP Criteria.

## 5.8 AOC-2D FORMER FUEL OIL UST AT EASTERN PORTION OF SITE (FORMER FARMHOUSE)

The farmhouse formerly located at the eastern portion of the site used a UST to store fuel oil used for on-site consumption in the heating system. The building was destroyed by fire in 1990.

The UST was located using a geophysical survey and was closed by removal in accordance with local requirements. An inspection of soil excavated during closure activities did not reveal any staining or odors indicative of a release. The UST was in good shape, with no holes or pitting observed.

### 5.8.1 Soil Sampling

Four pre-excavation soil samples were collected from depths between 5.5 and 6.0 ft bgs in the vicinity of the UST to determine if potential releases from the UST had impacted soil (Figure 9). The samples were collected from below the depth of the tank invert (5.5 ft bgs). The samples were analyzed for TPH.

Two post-excavation soil samples were collected from the bottom of the UST excavation (Figure 9). The samples were analyzed for TPH.

### 5.8.2 Soil Analytical Results

Analytical results of the pre-excavation samples identified TPH at concentrations ranging from not detected (<24 ppm) to 34 ppm. The concentrations detected do not exceed the NJDEP Criteria. TPH was not detected above the method detection limit in the post-excavation samples.

## 5.9 AOC-5A UNDERGROUND PIPING FROM MAIN OIL STORAGE TANK TO THE EMERGENCY DIESEL GENERATOR OIL STORAGE TANK VIA THE AUXILIARY BOILER HOUSE

Fuel oil is transferred from the Main Oil Storage Tank (AOC-1A) to the Emergency Diesel Generator Oil Storage Tank (AOC-1B) via a 1.5" diameter black iron pipeline with a heavy asphaltum coating. The pipeline is approximately 1,000 feet long, and is buried at a depth of approximately 2 ft bgs.

The amount of oil transferred from the Main Oil Storage Tank to the Emergency Diesel Generator Oil Storage Tank is currently monitored by a totalizer at each end of the pipeline to identify any significant deviations from the meter reading reported for review and action, if necessary. A release of No. 2 fuel oil from the underground piping was discovered in 1986 when oil leaked up through the floors of the Machine Shop/Storage Building located east of the Emergency Diesel Generator Building. The release was not identified by the monitoring of the totalizers due to a malfunction of the totalizer at the receiving end.

The piping in the area of the Machine Shop/Storage Building was exposed and a small hole (1/8" by ¼") was discovered in the fuel line. The piping was repaired. Pressure testing of the piping after the repairs indicated the piping was "tight". Based on the results of the pressure testing, the remainder of the piping had not released any product. Following the release, a policy of yearly pressure testing was instituted to minimize the potential for another release. The 1986 release is addressed in AOC-17G.

Pressure testing conducted in June of 1999 detected another leak which resulted in the release of approximately 20 gallons of fuel oil near the north end of the Emergency Diesel Generator Building. This release is identified as AOC-17W in the PAR. Soil was excavated, but after conversations with representatives of the Ocean County Health Department and the NJDEP, it was concluded that additional efforts to remove diesel fuel contaminated soil associated with the relatively small recent leak would be futile due to the pre-existing soil and groundwater contamination in the same area attributable to the larger leak discovered in 1986 (AOC-17G). The on-going monitoring and remediation of the pre-existing fuel oil contamination will address any additional contamination associated with the more recent leak.

### 5.9.1 Soil Sampling

Soil sampling was conducted along the Main Oil Storage Tank pipeline to determine if potential releases from the pipeline have impacted soil. Sixteen soil samples, or approximately one sample per 50 ft of accessible piping, were collected; approximately 230 ft of piping are located under buildings and could not be accessed). Soil samples were collected at 3.5 to 4.0 ft bgs to evaluate the soil below the pipe invert. One sample (SS-5A-1A) was collected at a stained area

where the piping came aboveground prior to going into the boiler house. This sample was collected 0.0 to 2.0 ft bgs. The samples were analyzed for TPH.

### 5.9.2 Soil Analytical Results

The laboratory analysis of soil samples collected along the underground piping from the Main Oil Storage Tank to the Emergency Diesel Generator Oil Storage Tank identified concentrations of TPH ranging from not detected (<25.0 ppm) to 718 ppm. These concentrations do not exceed the NJDEP Criteria.

## 5.10 AOC-5B UNDERGROUND PIPING FROM TURBINE LUBE OIL MAIN TANK TO THE TURBINE DIRTY OIL TANK

Lube oil is transferred from the Turbine Lube Oil Main Tank located in the Turbine Building to the Turbine Dirty Oil Tank located near the northwest corner of the Turbine Building during system shutdowns, or "outages". The outages have occurred approximately every 18 to 24 months and typically last approximately two to three months. During the outage, the oil may be stored in the Dirty Oil Tank.

The steel line through which the lube oil is transferred is approximately 3.5 ft bgs, and is approximately 55 ft in length. The line is pressure tested periodically, most recently in March 1993 and July 1998, prior to the outages. The 1993 and 1998 pressure tests indicated the line was "tight".

### 5.10.1 Soil Sampling

Soil sampling was conducted along the underground pipeline through which lube oil is transferred from the Turbine Building to the Turbine Dirty Oil Tank to determine if potential releases from the pipeline have impacted soil. No evidence of a release was observed in AOC-5B.

Two soil sample, or approximately one sample per 25 ft of piping, were collected in AOC-5B and were analyzed for TPH.

### 5.10.2 Soil Analytical Results

The laboratory analysis of soil samples collected along the underground piping from the Turbine Lube Oil Main Tank to the Turbine Dirty Oil Tank identified TPH at concentrations of 26.5 ppm and 55.9 ppm. These concentrations do not exceed the NJDEP Criteria.

## 5.11 AOC-5C UNDERGROUND PIPING FROM TORUS TANK TO REACTOR BUILDING

The chromate used in the Torus Tank as a corrosion inhibitor from 1969 to 1983 was delivered by commercial truck and transferred from the Torus Tank to the Reactor Building via underground piping. The pipeline is approximately 400 ft long and is buried approximately 3.5 ft bgs. Approximately 135 ft of piping is located under the Maintenance Building.

Soil sampling was conducted because the potential exists for historical releases of chromate from the underground piping to have impacted the soil. No evidence of a release was observed in AOC-1D.

### 5.11.1 Soil Sampling

Soil samples were collected from 4.5 to 5.0 ft bgs to evaluate the potential for impact to soil below the piping.

Five soil samples and one duplicate sample, or one approximately one per 50 ft of piping, were collected and analyzed for total and hexavalent chromium.

### 5.11.2 Soil Analytical Results

The laboratory analysis of soil samples collected along the underground piping from the Torus Tank to the Reactor Building identified total chromium concentrations ranging from 3.6 ppm to 10.7 ppm. Hexavalent chromium was not detected above the method detection limit. The concentrations detected do not exceed the NJDEP Criteria. (Note: criterion developed for trivalent chromium used for comparison for total chromium results since there are no criterion for total chromium).

## 5.12 AOC-5G FUEL OIL PUMPING STATION

A fuel oil pumping station is located at the northeast exterior wall of the Main Boiler House. The pump was installed during the construction of the Main Boiler House in the late 1960s. The pump station is used to fill small portable fuel tanks which transport fuel to equipment located throughout the OCNGS.

The fuel for the pump station is delivered through underground lines from the Main Oil Storage Tank; fuel lines delivering fuel to the boiler house split off and deliver fuel to the fuel pump via aboveground lines located within the boilerhouse. The area at which the fuel pump is located was paved in the mid-1980s.

### 5.12.1 Soil Sampling

Soil sampling was conducted at the fuel pump because surface releases during filling operations may have impacted surface soils. Staining was observed on asphalt and soil under the fuel oil pump; sampling was biased towards stained soil.

One soil sample was collected in AOC-5G. The sample was analyzed for TPH and VOCs+10.

### 5.12.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Fuel Oil Pumping Station detected TPH at a concentration of 270 ppm, which does not exceed the NJDEP Criterion. VOCs were not detected above the method detection limits.

## 5.13 AOC-5H EMGERGENCY DIESEL GENERATOR OIL STORAGE TANK ROOM SUMP

A sump is located in a concrete vault in the corner of the Emergency Diesel Generator Oil Storage Tank (AOC-1B) room to collect any water seepage or leaked or spilled oil. A manually-operated sump pump is located in the Emergency Diesel Generator Oil Storage Tank room to transfer any collected liquid to a waste oil tank (AOC-1D). The sump is located in a vault constructed with 24" thick concrete walls and floor.

The containment in which the sump is located was inspected for evidence of deterioration. The sump walls appear to be in good condition with no evidence of deterioration or cracking. Photographs of the sump are provided in Appendix H.

## 5.14 AOC-6A HAZARDOUS AND NON-HAZARDOUS WASTE STORAGE AREA

The Hazardous and Non-Hazardous Waste Storage Area is a collection station located inside an area within the Level D storage yard. The collection station was constructed in 1984. The Hazardous and Non-hazardous Waste Storage Area has a concrete base and concrete curbing and is covered by a roof to minimize the accumulation of rainwater. The area is sloped to direct rainwater which collects on the concrete base to a drain which is equipped with a valve. The drain is directed to the ground surface. The rainwater is inspected prior to release.

### 5.14.1 Soil Sampling

Soil sampling was conducted in the area of the drain to determine if the discharge has impacted soil. The sample was collected under the drain. Staining was not observed in AOC-6A.

One soil sample was collected in AOC-6A and analyzed for TPH, VOCs+10, BN/AEs+25, PCBs, and PP Metals.

### 5.14.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Hazardous and Non-Hazardous Waste Storage Area identified TPH at a concentration of 40 ppm. VOCs and PCBs were not detected above the method detection limits. Nineteen BN/AEs were identified at concentrations ranging from 0.004 ppm to 0.100 ppm and the total concentration of TICs detected was 15.46 ppm. Nine PP Metals were identified at concentrations ranging from 0.284 ppm to 406 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.15 AOCs-6B/6C FORMER STORAGE AREAS

Prior to the construction of the collection station in 1984, drummed hazardous materials were stored on the ground surface in the Level D Storage Area. The drums were stored in the following two locations: an area measuring approximately 30 ft by 50 ft located south of the existing storage structure (AOC-6B), and an area measuring approximately 30 ft by 50 ft at the southwest corner of the Level D Storage Area (AOC-6C).

### 5.15.1 Soil Sampling

Two soil samples were collected in AOC-6B and two samples were collected in AOC-6C. As no evidence of a release was observed in AOCs-6A/6B, the sample locations were selected randomly. The samples were analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs, PP Metals, and iron.

### 5.15.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Former Storage Areas identified concentrations of TPH ranging from not detected (<22 ppm) to 39 ppm. VOCs were not detected above the method detection limits. BN/AEs were identified in the four samples with concentrations ranging from 0.004 ppm to 0.59 ppm and TICs were identified in the four samples at total concentrations ranging from 8.51 ppm to 15.16 ppm. One sample was analyzed for PCBs, PP Metals and iron. PCBs were not identified above the method detection limits. Five PP Metals were identified at concentrations ranging from 0.020 ppm to 33.0 ppm. Iron was detected at a concentration of 5,180 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.16 AOC-7B SCRAP METAL DUMPSTER/TRASH RACK DEBRIS DUMPSTER

Two dumpsters are located on an asphalt paved surface at the southeast corner of Intake Structure. One dumpster is used for the storage of scrap metal generated at the OCNGS. The scrap metal is removed by a contracted recycling company.

The other dumpster is used for the storage of eel grass and other marine organic debris cleaned from the trash racks at the cooling water intake. GPUN proposed NFA in the PAR with regards to the dumpster used for the storage of eel grass and other marine organic debris because the dumpster is used for the storage of non-hazardous materials only (organic marine debris).

Soil sampling was proposed in the area at which the scrap metal dumpster (AOC-7B) is located to determine if soil has been impacted by the presence of the scrap metal dumpster. Staining was not observed on the ground surface in AOC-7B.

### 5.16.1 Soil Sampling

Because of the presence of underground utilities, soil samples could not be collected in the area of the scrap metal dumpster located at the southeast corner of Intake Structure. The area is asphalt-paved, and due to the sloping of the ground surface, potential releases from the scrap metal dumpster would likely travel over ground surface to an area west of the dumpster. This is the area sampled to investigate transformer AOC-15M. The analytical results for sample locations SS-15M-3A and SS-15M-4A for AOC-15M were used to evaluate the potential environmental impact from AOC-7B. These sample locations were also used to address potential impact associated with AOC-8A.

Two soil samples were collected to evaluate AOC-8A and were analyzed for TPH and PCBs.

### 5.16.2 Soil Analytical Results

The analytical results of the soil samples from AOC-15M (used to evaluate AOC-7B) identified PCBs in SS-15M-3A and SS-15M-4A at concentrations of 2.100 ppm and 1.600 ppm, respectively. These concentrations exceed the NJDEP RDC Criteria of 0.49 ppm and NJDEP NRDC Criteria of 2 ppm. TPH was detected in SS-15M-3A and SS-15M-4A at concentrations of 1,200 ppm and 3,650 ppm, respectively. The detected concentrations do not exceed the NJDEP Criteria.

## 5.17 AOCs-8A/8B CHEMICAL STORAGE CABINETS

Flammable liquid lockers are used at the OCNGS for the storage of consumable materials in relatively close proximity to work locations where the consumables are used, without creating a fire hazard. The vast majority of the lockers are the size that will accommodate a single 55-gallon drum, with a shelf above the drum, although the containers stored in the lockers are typically much smaller than 55 gallons.

The three most common uses for a flammable liquid locker are as follows:

- staging lubricating oils and grease near equipment that requires periodic lubrication,
- staging small quantities of frequently used consumables near work stations to avoid the need for frequent trips to the warehouse, and
- staging paint and painting supplies near areas that are frequently painted.

The contents of each locker can be expected to change over time.

There are approximately 72 flammable liquid lockers in use at the OCNGS. Sixty-five of the lockers are located inside buildings in secure locations where there is no potential for release to the environment. Of the seven lockers located outside of the buildings, the two lockers located at the cooling water intake structure (AOC-8A) were the only lockers with signs of leakage. The asphalt surface beneath the base of the two lockers located at the cooling water intake was stained with oil.

A locker located south of Trailer 75 in the area west of the New RadWaste Building (AOC-8B) is located on gravel on soil with no secondary containment. No staining was observed at AOC-8B.

Surface soil sampling was conducted in the area of the two flammable liquid lockers at which staining was observed (AOC-8A), and in the area of the locker located south of Trailer 75 (AOC-8B) to determine if potential releases from the lockers at these AOCs have impacted soil.

### 5.17.1 Soil Sampling

Because of the presence of underground utilities, soil samples could not be collected at the base of the locker at the Intake Canal (the locker identified as AOC-8A). The area is asphalt-paved, and due to the sloping of the ground surface, potential releases from the locker would likely travel over ground surface to an area west of the locker. This is the area sampled to investigate

transformer AOC-15M. The analytical results for sample locations SS-15M-3A and SS-15M-4A for AOC-15M were used to evaluate the potential environmental impact to AOC-8A.

Surface soil samples were collected at the west and south sides of the locker identified as AOC-8B. Staining was not observed on the ground surface in AOC-8B.

Two soil samples were collected to evaluate AOC-8A and were analyzed for TPH and PCBs. Two soil samples were collected in AOC-8B and were analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs and PP Metals.

### 5.17.2 Soil Analytical Results

AOC-8A: The analytical results of the soil samples from AOC-15M identified PCBs in SS-15M-3A and SS-15M-4A at concentrations of 2.100 ppm and 1.600 ppm, respectively. These concentrations exceed the NJDEP RDC Criteria of 0.49 ppm and NJDEP NRDC Criteria of 2 ppm. TPH was detected in SS-15M-3A and SS-15M-4A at concentrations of 1,200 ppm and 3,650 ppm, respectively. The detected concentrations do not exceed the NJDEP Criteria.

AOC-8B: The laboratory analysis of soil samples collected at AOC-8B (Chemical Storage Cabinet located south of Trailer 75) identified TPH at concentrations of 44.8 and 49.2 ppm. Target VOCs were not detected above the method detection limits; TICs were identified in one sample at a total concentration of 0.830 ppm. BN/AEs were identified in the two samples at concentrations ranging from 0.009 ppm to 2.700 ppm. One sample was analyzed for PCBs and PP Metals. PCBs were not identified above the method detection limits. Six PP Metals were identified at concentrations ranging from 0.89 ppm to 5.7 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.18 AOC-11A DRAINAGE SWALES

The drainage areas at the OCNGS receive runoff from parking areas at the north, east and southeast portions of the site. With the exception of AOC-11A, a trench located adjacent to a wooded area and north of the Main Gate Entrance, the drainage swales do not receive surface flow from production areas or hazardous materials handling/storage areas.

The trench identified as AOC-11A receives surface water runoff from the Non-hazardous and Hazardous Waste Storage Area and Former Storage Areas (AOCs-6A, -6B, and 6C), and the Spare Transformer (AOC-15D).

### 5.18.1 Soil Sampling

Soil sampling for AOC-11A was conducted to determine if surface water runoff from the Non-hazardous and Hazardous Waste Storage Area has impacted the trench. Staining was not observed on the ground surface.

Two soil samples were collected in AOC-11A and were analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs and PP Metals.

### 5.18.2 Soil Analytical Results

The laboratory analysis of soil samples collected along the drainage swales north of the Main Gate Entrance identified TPH concentrations of 27.5 ppm and 30.0 ppm. Target VOCs were not detected above the method detection limits; TICs were detected in one sample at a total concentration of 0.760 ppm. BN/AEs were identified in one sample at a concentration of 0.014 ppm. One sample was analyzed for PCBs and PP Metals. PCBs were not identified above the method detection limits. Five PP Metals were identified at concentrations ranging from 0.50 ppm to 1.5 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.19 AOC-14A FORMER ON-SITE WASTEWATER TREATMENT FACILITY

Prior to the connection to the Ocean County Utilities Authority in approximately 1982, sanitary wastes at the OCNGS were directed to a former on-site treatment facility located approximately 200 ft south of the Reactor Building. Discharges to the treatment facility included floor drains in the following buildings: the main office building, the Turbine Building bathrooms, the "clean" (non-radiologically contaminated) portion of the Turbine Building, and the plant engineering building (or the auxiliary office building). Treated liquids discharged to the canal at Discharge Serial No. (DSN) 004 under DSW Permit No. NJ 0005550. Solids were pumped into a septic pit. The pit was pumped out on an as-needed basis by Olsen's Septic Service, a local contractor.

Following the connection to the municipal treatment system, aboveground structures associated with the treatment facility were removed; underground features, including the septic pit and equalizing tank, may have been abandoned in place.

### 5.19.1 Soil Sampling

NAEVA, the subsurface utility locating company, investigated the area and located the former equalizing tank. Based on the geophysical work, the walls of the equalizing tank appeared to be in place. A Geoprobe® boring was advanced through the center of the tank, but refusal was encountered at approximately 2 ft bgs. (Note: the area has been landscaped, raising the ground surface approximately 1.5 ft). The area was exposed using a shovel and then, to gain better access, with a backhoe. The "strongback" bracing for the tank top was present, but the top of the tank was not in place. A Geoprobe® boring was advanced through the top of the tank into the tank interior; the bottom of the tank was encountered and a soil sample was collected for laboratory analysis at the bottom of the tank. The soil tubes were screened, with no indication of contamination detected.

The area of the former treatment facility and the associated septic pit were located with facility drawings and interviews with facility personnel. The treatment facility was located south of the equalizing tank.

A Geoprobe® boring was advanced through the septic pit; no structures were encountered. A soil sample (SS-14A-5A) was collected from 0.5 ft above groundwater to evaluate potential impact from the septic pit.

Three additional soil samples (SS-14A-1A through –3A) were collected at 0.5 ft above groundwater in locations generally downgradient of the two treatment facility structures.

Five soil samples were collected in AOC-14 and were analyzed for VOCs+10, and/or BN/AEs+25 or BNs+15, TPH, PCBs, and PP Metals.

### 5.19.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the former treatment facility identified TPH at concentrations ranging from not detected (<25.0 ppm) to 57.1 ppm. The detected TPH concentrations do not exceed the NJDEP Criteria. Target VOCs were not detected above the method detection limits in four of the five samples. TICs were detected in three of the samples with total concentrations ranging from 1.300 ppm to 1.600 ppm. One compound, chlorobenzene, was detected in one sample at a concentration of 1.6 ppm, above the NJDEP IGW Criteria (1 ppm). BNs were identified in one sample with concentrations ranging from 0.017 ppm to 3.400 ppm. Target BN/AEs were not detected above the method detection limits in the two samples analyzed for BN/AEs; TICs were identified in both samples with total concentrations of 2.46 ppm and 2.930 ppm. PCBs were not identified above the method detection limits. PP Metals were identified in the four samples analyzed for PP Metals at concentrations ranging from 0.02 ppm to 26.8 ppm. The detected BN, BN/AE, and PP Metals concentrations do not exceed the NJDEP Criteria.

## 5.20 AOC-14B SEPTIC SYSTEM – FORMER FARMHOUSE

The farmhouse formerly located at the eastern portion of the site was formerly serviced by a septic system which received primarily sanitary waste. From 1975 until 1988, the former farmhouse was used as an office and marine-life sample processing facility for environmental consultants studying fish and other marine organisms in Barnegat Bay. These activities included the preservation of samples of marine life in 10% formalin and 40% isopropanol. The building was destroyed by fire in 1990.

The former septic tank was located by facility personnel, and was visible at the ground surface. The tank was filled with soil. The top and the four sides of the tank were exposed with a backhoe. Soil was inspected as it was removed; no evidence of contamination was detected. The tank was inspected for piping which would indicate the presence of a drain or leach field; no piping was observed. The tank measured approximately 4 ft in diameter, and was in poor condition.

### 5.20.1 Soil Sampling

A Geoprobe® boring was advance through the center of the tank; the bottom of the tank was not encountered. Four Geoprobe® borings were advanced around the sides of the tank. All five of the soil samples were collected at 0.5 ft above groundwater.

Five soil samples were collected in AOC-14B and analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs and PP Metals.

### 5.20.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Septic System near the former farmhouse identified TPH at concentrations ranging from not detected (<22 ppm) to 52 ppm. VOCs were not detected above the method detection limits. Target BN/AEs were identified in the five samples at concentrations ranging from 0.008 ppm to 0.074 ppm. TICs were also detected in the five samples, with total concentrations ranging from 8.75 ppm to 9.38 ppm. One sample was analyzed for PCBs and PP Metals. PCBs were not identified above the method detection limit. Six PP Metals were identified with concentrations ranging from 0.167 ppm to 4.10 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.21 AOC-14C SEEPAGE PIT

The domestic water system at the OCNGS withdraws water from a 300 ft deep well screened in the Kirkwood Aquifer. This water is filtered through the plant's domestic water treatment system. Approximately 2,000 gallons per day are backwashed from this treatment system to a 6 ft by 9 ft concrete cylinder with a perforated bottom that is located within 125 feet of the plant's Discharge Canal. Presently, the plant's water treatment system is a fully-containerized, mobile treatment system provided by a water treatment contractor. Originally, "hard coal filters" were used to filter the domestic water for the OCNGS, however, these were abandoned in favor of the more modern trailer-mounted system. The present trailer-mounted system uses sand as a filtering media in lieu of the original hard coal system.

After water from the 300 ft deep Kirkwood well is processed by the plant's domestic water treatment system, it is also used as raw water for replenishing plant systems. To be used for this purpose, domestic water must be highly purified and demineralized. A second mobile treatment system equipped with ion exchange resins is used for this purpose. Periodically, it is necessary to exchange this second trailer-mounted fully containerized, mobile system with a regenerated system. The schedule for this exchange is not regular or calendar driven, but is dependent upon the quality of the output water. Operating experience to date has shown that a new trailer is needed about once every two months. To ensure that the water in the new system upon arrival at the OCNGS does not affect the high purity requirements of the OCNGS, it is necessary to flush the new system with domestic water that has already been filtered by the sand beds in the first trailer. Flushing is accomplished only when a new trailer-mounted system arrives on site. This new system flush consists of approximately 1,000 gallons of demineralized water, which is discharged to the 6 ft by 9 ft concrete cylinder previously described. This flushing operation occurs each time that a new trailer arrives on site.

All of these activities are regulated by New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Ground Water Permit No. NJ0101966. This permit requires annual sampling of the backflush of the domestic water treatment system. Samples of the backflush are collected prior to discharge to the 6-ft by 9-ft concrete cylinder, representing the worst case, pre-dilution conditions. The specific sampling location is the pre-treatment building, 160 ft north of the 6-ft by 9-ft cylinder. Required analyses are pH, total dissolved solids (TDS), iron and manganese. There are no permit limits for these parameters, however, reporting to the NJDEP is required if the measured values exceed the historical range. In addition, a quarterly grab sample

is required prior to discharging the regenerated treatment system flush to the 6 ft by 9 ft concrete cylinder. The specific sample location is the sample outlet just west of the pre-treatment building. Although no limits are imposed, analyses for pH, TDS, total iron, chlorides, total sodium and total petroleum hydrocarbons are required. The above-described discharges have almost no effect on groundwater quality. The direction of groundwater flow in the vicinity of the discharges is towards the OCNGS Discharge Canal and the Discharge Canal is within 125 feet of the discharge to groundwater. Therefore, only a very small volume of groundwater can actually receive this discharge and that volume eventually discharges to surface water (the Discharge Canal).

The analytical results of eleven years of sampling and analysis of the domestic water treatment system backwash are summarized in the following table:

**Domestic Water Treatment System Backwash**
**Summary of 11-Year Statistics (1986 to 1996)**

| Parameter | Minimum | Mean | Maximum |
|---|---|---|---|
| pH | 5.7 | 6.0 | 6.7 |
| TDS Solids (mg/l) | 12 | 69 | 196 |
| Iron (mg/l) | 1.9 | 184.5 | 701.6 |
| Manganese (mg/l) | 0.02 | 0.75 | 2.27 |

Soil sampling was conducted in this AOC in the area at which staining was observed around the perimeter of the seepage pit.

### 5.21.1 Soil Sampling

Surface soil samples were collected at the four sides of the seepage pit. In addition, one subsurface soil sample was collected at the depth of the seepage pit bottom (9.5 to 10.0 ft bgs).

Five soil samples were collected in AOC-14C and were analyzed for PP Metals and iron.

### 5.21.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Seepage Pit identified concentrations of PP Metals ranging from 0.023 ppm to 274 ppm. Thallium was detected at 8.3 ppm in SS-14C-3A, exceeding the NJDEP RDC and NRDC Criteria of 2 ppm. No other PP Metals were detected at concentrations exceeding the NJDEP Criteria. Iron was detected at concentrations that range from 914 ppm to 115,000 ppm, which do not exceed the NJDEP Criteria.

## 5.22 AOC-15A TRANSFORMER UNIT

One transformer unit is located on a concrete pad, without a containment lip, near the northwest corner of Low Level RadWaste Storage Facility. AOC-15A does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit,

the soil near the pad may have been impacted from potential releases due to the lack of a containment lip.

### 5.22.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. Two sampling locations were moved off-center due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.22.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer unit near the northwest corner of the Low Level RadWaste Storage Facility identified concentrations of TPH ranging from 27.9 ppm to 47.6 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.23 AOC-15B TRANSFORMER UNIT

Two units are located on concrete pads near the south side of the Low Level RadWaste Storage Facility. The pad is not equipped with containment lips. AOC-15B does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Although there is no history of leakage from these transformers and no staining was observed on the ground surface around the base of the units, the soil near the pad may have been impacted from potential releases due to the lack of a containment lip.

### 5.23.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer bases, with one sample location between the two pads, for a total of seven proposed surface soil samples. The northernmost sample location could not be accessed due to a fence, and the location between the two pads could not be accessed safely. Five sample locations were moved off-center due to the presence of high energy underground electric lines.

Five soil samples were collected and analyzed for TPH and PCBs.

### 5.23.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer units near the south side of the Low Level RadWaste Storage Facility identified TPH at concentrations ranging from 43.7 ppm to 105 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.24 AOC-15C TRANSFORMER UNIT

One unit is located on a concrete pad, without a containment lip, near the southwest corner of the Material Warehouse. AOC-15C does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the pad may be impacted from potential releases due to the lack of a containment lip.

### 5.24.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. The four sampling locations were moved off-center due to the presence of high energy underground electric lines. One sample was collected at each side, near the center of the pad.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.24.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer unit near the southwest corner of the Material Warehouse identified TPH at concentrations ranging from 170 ppm to 635 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limits.

## 5.25 AOC-15D SPARE MAIN TRANSFORMER

One unit is located on 12 ft by 12 ft timber over ½-inch steel plates on the south side of the Level D Storage Area. AOC-15D does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Oil-stained gravel was observed on the north side of the transformer. The soil under the gravel may have been impacted from historic releases.

### 5.25.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. Sampling was biased toward visible staining.

Eight soil samples were collected and analyzed for TPH and PCBs.

### 5.25.2 Soil Analytical Results

The laboratory analysis of soil samples collected near the transformer unit on the south side of the Level D Storage Area identified TPH at concentrations ranging from not detected (<22 ppm) to 160 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limits in seven of the eight samples; the eighth sample was not analyzed for PCBs due to a lab error. It is unlikely that PCBs would be a contaminant at this sample location based on the following: 1) the low concentration of TPH detected at this sample

location (32.4 ppm); 2) the results of analysis for PCBs at the other sample locations in this AOC (not-detected), 3) the lack of evidence during the field activities of historical spills or releases, and 4) the absence of anecdotal or documented spills or releases in this area.

## 5.26 AOC-15E TRANSFORMER UNIT

One unit is located on a concrete pad, without a containment lip, near the southwest corner of the New RadWaste Building. AOC-15E does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the pad may be impacted from potential releases due to the lack of a containment lip.

### 5.26.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. One sampling location was abandoned and the remaining three sampling locations were moved off-center due to the presence of high energy underground electric lines.

Three soil samples were collected and analyzed for TPH and PCBs.

### 5.26.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pad near the southwest corner of the New RadWaste Building identified TPH at concentrations ranging from 72 ppm to 140 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.27 AOC-15F TRANSFORMER UNIT

Two units are located on concrete pads northeast of the Reactor Building. The pads are not equipped with containment lips. AOC-15F does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Staining was observed on the pad between the two units. The soil near the pad may be impacted from historic releases due to the lack of a containment lip.

### 5.27.1 Soil Sampling

Surface soil samples were collected around the transformer bases to evaluate the impact from potential releases from the transformers. Sampling locations were biased towards staining observed on the pad.

Five soil samples and one duplicate were collected and analyzed for TPH and PCBs.

### 5.27.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pads northeast of the Reactor Building identified TPH at concentrations ranging from 64 ppm to 210 ppm. PCBs were detected in two samples at concentrations of 0.0219 ppm and 0.087 ppm. The TPH and PCB concentrations do not exceed the NJDEP Criteria.

## 5.28 AOC-15G TRANSFORMER UNIT

Two units are located on concrete pads, without containment lips, near the southwest corner of the Administration Building. AOC-15G units were installed after the cessation of the use of PCB fluids and are known to not have contained PCB fluids. Although there is no history of leakage from these transformers and no staining was observed on the ground surface around the base of the units, the soil near the pad may be impacted from historic releases due to the lack of a containment lip.

### 5.28.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of eight surface soil samples. One sampling location was abandoned and three were moved off-center due to the presence of high energy underground electric lines.

Seven soil samples were collected and analyzed for TPH and PCBs.

### 5.28.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pads near the southwest corner of the Administration Building identified TPH at concentrations ranging from 34.7 ppm to 48.6 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.29 AOC-15H TRANSFORMER UNIT

Two units are located on concrete pads, without containment lips, near the southeast corner of the Site Emergency Building. AOC-15H does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Although there is no history of leakage from these transformers and no staining was observed on the ground surface around the base of the units, the soil near the pad may be impacted from historic releases due to the lack of a containment lip.

### 5.29.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer bases for a total of six soil samples. A wall between the two units precluded sampling in this area. The sample locations were moved off-center due to the presence of high energy underground electric lines.

The transformer pads are located on soil covered by 1 ft of river rock, and approximately 2 to 3 ft of pea gravel. Sample intervals are depth below soil surface.

Six soil samples were collected and analyzed for TPH and PCBs.

### 5.29.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pads near the southwest corner of the Site Emergency Building identified TPH at concentrations ranging from 27.3 ppm to 62.4 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.30 AOC-15I TRANSFORMER UNIT

One unit is located on a concrete pad, without a containment lip, east of the Plant Engineering Building (Aux. Office Bldg.). AOC-15I does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. The soil near the pad may be impacted from historic releases due to the lack of a containment lip. Staining was observed on the northwest corner of the pad.

### 5.30.1 Soil Sampling

Surface soil samples were collected around the transformer base, including a sample near the stained area, to evaluate the impact of historic releases from the transformer. Sampling locations were proposed at the center of each side of the base, but had to be moved off-center due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.30.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pad east of the Plant Engineering Building (Auxiliary Office Building) identified TPH at concentrations ranging from 41.9 ppm to 58 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

## 5.31 AOC-15J TRANSFORMER UNIT

AOC-15J consists of the one unit identified as the "Blackout Transformer". The Blackout Transformer is completely contained by a concrete moat with 4 ft high walls, and is located west of the Pre-Treatment Building. AOC-15J units were installed after the cessation of the use of PCB fluids and are known to not have contained PCB fluids. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, sampling was conducted to determine if potential releases from the unit had impacted soil.

### 5.31.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. The northern sampling location was abandoned due to the presence of a concrete pad. The remaining three locations were moved off-center due to the presence of high energy underground electric lines.

Three soil samples were collected and analyzed for TPH, PCBs, and/or VOCs+10.

### 5.31.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the "Blackout Transformer" west of the Pre-Treatment Building identified TPH at concentrations ranging from 84.7 ppm to 2,190 ppm. PCBs were not detected above the method detection limits. VOCs were not detected above the method detection limits in the one sample analyzed for VOCs. The detected concentrations do not exceed the NJDEP Criteria.

## 5.32 AOC-15K MAIN AND AUXILIARY TRANSFORMERS

The two Main Transformers (M1A and M1B) and one Auxiliary Transformer are located on concrete pedestals without containment on the west side of the Turbine Building. AOC-15K does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Contaminated soil due to a historical release has been confirmed around the M1B Transformer. The soil around the M1A and Auxiliary Transformers is potentially contaminated due to historical releases. Several feet of gravel covers the ground surface in the area of AOC-15K; sampling intervals are below soil.

### 5.32.1 Soil Sampling

Soil samples were collected around the transformer bases and surrounding area to evaluate the impact of potential releases from the transformer units. Soil samples were collected around AOC-15K at two depth intervals (2.0 to 2.5 ft bgs and 4.0 to 4.5 ft bgs). One soil sample was collected at 0.5 ft above groundwater during the installation of well MW-15K-1A.

Seventeen soil samples and one duplicate sample were collected and analyzed for TPH, PCBs, and/or VOCs+10.

### 5.32.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformers west of the Turbine Building identified TPH at concentrations ranging from not detected (<25 ppm) to 311 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were detected in SS-15K-6B (collected at 4.0 to 4.5 ft bgs) at a concentration of 0.754 ppm, which exceeds the NJDEP RDC (0.49 ppm). Laboratory analysis did not identify PCBs in the remaining samples, with the exception of a 0.179 ppm concentration detected in one sample. This concentration does not exceed NJDEP Criteria.

### 5.32.3 Groundwater Sampling

Groundwater samples were collected from wells W-3 and W-4, located adjacent to the Discharge Canal in September 1999. Wells W-3 and W-4 are an existing pair of wells installed in the Cape May Aquifer and Cohansey Aquifer, respectively. The wells are located approximately 75 ft west of the transformers. In December 1999, MW-15K-1A was installed in the Cape May Aquifer near the Intake Structure west of the Main Transformers. Groundwater sampling and laboratory analysis from these three monitoring wells were conducted to evaluate the potential impact to groundwater associated with releases from the transformer units at AOC-15K. (Note monitoring well MW-15K-1A was also used to evaluate AOC-15L).

Three groundwater samples and one duplicate sample were collected to evaluate AOC-15K; the samples were analyzed for VOCs+10, PCBs and/or BNs.

### 5.32.4 Groundwater Analytical Results

The laboratory analysis of the groundwater sample from well W3 and its duplicate identified tetrachloroethene at concentrations of 4.80 and 6.70 ppb. These concentrations exceed the NJDEP GWQS for tetrachloroethene of 1 ppb. Tetrachloroethene was not detected above the method detection limits in monitoring wells MW-15K-1A or W4. No other VOCs were detected above the NJDEP GWQS. PCBs were not detected above the method detection limits. One BN was detected in one sample at a concentration of 1.7 ppb, which does not exceed the NJDEP GWQS.

The presence of tetrachloroethene in shallow groundwater at this area of the Site was previously investigated (Woodward-Clyde Consultants, 1991) and attributed to multiple small sources in areas where chlorinated solvents were stored, dispensed, and used in the past. The tetrachloroethene in groundwater is being monitored and remediated under an existing Memorandum of Agreement (MOA), and is discussed in AOC-16C in the PAR. Soil sampling conducted to investigate the tetrachloroethene in soil in addressed in AOC-16C.

## 5.33 AOC-15L TRANSFORMER UNIT

Two startup transformers are located on concrete pedestals without containment, west of the Turbine Building and south of Chlorination Facility. AOC-15L does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Staining was observed on the soil around both units. The soil near the pad may be impacted from historic releases due to the lack of a containment wall.

### 5.33.1 Soil Sampling

Surface soil samples were collected around the transformer bases at the location where staining was observed to evaluate the impact of historic releases from the transformers.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.33.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pads west of the Turbine Building and south of the Chlorination Facility identified TPH at concentrations ranging from not detected (<24 ppm) to 91 ppm. The detected concentrations do not exceed the NJDEP Criteria. PCBs were not detected above the method detection limit.

### 5.33.3 Groundwater Sampling

Because one of the monitoring wells used to evaluate groundwater conditions at AOC-15K (MW-15K-1A) is also located downgradient of AOC-15L, the results of groundwater sampling and analysis from this well was used to evaluate potential impact to groundwater associated with AOC-15L.

One groundwater sample was collected to evaluate AOC-15L; the sample was analyzed for VOCs+10, BNs+15 and PCBs.

### 5.33.4 Groundwater Analytical Results

The analytical results of groundwater sample GW-15K-1A, used to evaluate both AOC-15K and AOC-15L, identified one VOC at a concentration of 2.1 ppb and one BN at a concentration of 1.7 ppb. Neither compound was detected above the NJDEP GWQS. PCBs were not detected above the method detection limits.

## 5.34 AOC-15M TRANSFORMER UNIT

Two units are located on raised concrete pads at the southeast corner of the Intake Structure. The pads are equipped with containment lips. AOC-15M does not presently include regulated PCB-units. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the units at some time in the past. Although there is no history of leakage from these transformers and no staining was observed on the ground surface around the base of the units, soil sampling was conducted to evaluate the potential impact from releases from the units.

### 5.34.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. Two sampling locations were moved due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH, PCBs, and/or VOCs+10.

### 5.34.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer pad near the southeast corner of the Intake Structure identified TPH at concentrations ranging from 270 ppm to 3650 ppm. These concentrations do not exceed the NJDEP Criteria. PCBs were detected in one sample at a concentration of 1.600 ppm, which exceeds the NJDEP RDC Criteria (0.49 ppm). PCBs were detected in another sample at a concentration of 2.100 ppm, which exceeds the

NJDEP RDC and NRDC Criteria (2 ppm). PCBs were not detected above the method detection limits in the two other samples. VOCs were not detected above the method detection limits in the one sample analyzed for VOCs.

## 5.35 AOC-15N TRANSFORMER UNIT

One unit is located on a concrete pad near the northeast corner of the Fire Water Storage Tank. The unit is not equipped with containment lips. AOC-15N does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past.

Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the pad may be impacted from potential releases due to the lack of a containment lip.

### 5.35.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. The four sampling locations were moved off-center due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.35.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer near the northeast corner of the Fire Water Storage Tank identified TPH at concentrations ranging from 55.7 ppm to 66.8 ppm. PCBs were not detected above the method detection limit. The detected concentrations do not exceed the NJDEP Criteria.

## 5.36 AOC-15O TRANSFORMER UNIT

One unit is located on a concrete pad, without a containment lip, south of the Trailer 300 Complex. AOC-15O does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the pad may be impacted from potential releases due to the lack of a containment lip.

### 5.36.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. One sampling location was moved off-center due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.36.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer near the southwest corner of the Trailer 300 Complex identified TPH at concentrations ranging from not detected (<25.0 ppm) to 55 ppm. PCBs were not detected above the method detection limit. The detected concentrations do not exceed the NJDEP Criteria.

## 5.37 AOC-15P TRANSFORMER UNIT

One unit is located on a gravel surface, without containment, east of the Breathing Air Compressor Building. AOC-15P does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the transformer may be impacted from potential releases due to the lack of containment.

### 5.37.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. Three sampling locations were moved off-center due to the presence of high energy underground electric lines. An obstruction was encountered at one location, and the sampling location was abandoned due to health and safety concerns.

Three soil samples were collected and analyzed for TPH and PCBs.

### 5.37.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer unit east of the Breathing Air Compressor Building identified TPH at concentrations ranging from 31.0 ppm to 41.6 ppm. PCBs were not detected above the method detection limit. The detected concentrations do not exceed the NJDEP Criteria.

## 5.38 AOC-15Q TRANSFORMER UNIT

One unit is located on a concrete pad, without a containment lip, west of the Low Level RadWaste Storage Facility. AOC-15Q does not presently include a regulated PCB-unit. Due to the age of the facility, however, it is assumed that PCB fluids may have been used at the unit at some time in the past. Although there is no history of leakage from the transformer and no staining was observed on the ground surface around the base of the unit, the soil near the transformer may be impacted from potential releases due to the lack of containment.

### 5.38.1 Soil Sampling

One surface soil sample was proposed at the center of each side of the transformer base, for a total of four surface soil samples. One sampling location was moved off-center due to the presence of high energy underground electric lines.

Four soil samples were collected and analyzed for TPH and PCBs.

### 5.38.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the transformer unit west of the Low Level RadWaste Storage Facility identified TPH at concentrations ranging from not detected (<25.0 ppm) to 37.4 ppm. PCBs were not detected above the method detection limit. The detected concentrations do not exceed the NJDEP Criteria.

## 5.39 AOC-16A HAZARDOUS WASTE COLLECTION STATION

Two storage trailers, located in an area between the Diesel Generator Building and the Storage Building, are used for the storage of hazardous materials generated at the OCNGS. The ground surface in the area of the storage trailers is gravel-covered. The trailers have been used for the storage of hazardous waste since approximately 1985. The trailers are equipped with secondary containment. There have been no releases or leaks at the storage trailers. Staining was not observed on the ground surface in AOC-16A.

### 5.39.1 Soil Sampling

Soil sampling was conducted in the area of the Hazardous Waste Collection Station to determine if soil has been impacted by potential releases. Samples were collected under each of the five doorways to the Hazardous Waste Collection Station, and one sample was collected at each end of the station for a total of seven samples. Staining was not observed on the ground surface in AOC-16A.

Seven samples and one duplicate sample were collected around the Hazardous Waste Collection Station. The samples were analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs and PP Metals.

### 5.39.2 Soil Analytical Results

The laboratory analysis of soil samples collected around the Hazardous Waste Collection Station identified TPH at concentrations ranging from not detected (<21 ppm) to 160 ppm. VOCs were not detected above the method detection limit. Several BN/AEs were detected in seven of the eight samples, with concentrations ranging from 0.008 ppm to 1.728 ppm. TICs were detected in all eight samples at total concentrations ranging from 1.19 ppm to 124.40 ppm. PCBs were detected in two of the three samples analyzed for PCBs, at concentrations of 0.0326 and 0.133 ppm. PP Metals were detected in the three samples analyzed for PP Metals at concentrations ranging from 0.014 ppm to 85.8 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.40 AOC-16B FORMER HAZARDOUS WASTE COLLECTION SHED

Prior to the construction of the Hazardous and Non-Hazardous Waste Storage Area (AOC-6) in 1984 and the Hazardous Waste Collection Station (AOC-16A) in 1985, hazardous wastes were stored in a wooden shed formerly located outside of the western wall of the Old Machine Shop. The shed was removed after the construction of the Hazardous and Non-Hazardous Waste Storage Area. The shed had a wooden floor and measured approximately 10 ft by 12 ft. The

area at which the Collection Shed was located is presently paved, but was not paved during the entire time the shed was located in this area.

### 5.40.1 Soil Sampling

Soil sampling was conducted in the area of the former Hazardous Waste Collection Shed because the area under or immediately surrounding the former wooden storage shed was not paved for the entire lifespan of this hazardous waste storage area. As no staining or other evidence of a release was observed, the sample locations were selected randomly.

Two soil samples and one duplicate sample were collected and analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs, PP Metals, and iron.

### 5.40.2 Soil Analytical Results

The laboratory analysis of soil samples collected outside the western wall of the Old Machine Shop (Former Hazardous Waste Collection Shed Area) identified TPH at concentrations ranging from 81 ppm to 178 ppm. VOCs were not detected above the method detection limits. BN/AEs were detected in all of the samples with concentrations ranging from 0.006 ppm to 0.046 ppm. TICs were also detected in all of the samples with total concentrations ranging from and 6.81 ppm to 8.04 ppm. PCBs were not detected above the method detection limit. PP Metals were identified at concentrations ranging from 0.024 ppm to 41.8 ppm in the two samples analyzed for PP Metals. Iron was detected in the two samples analyzed at 2,790 ppm and 3,130 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.41 AOC-16C FORMER DRUM STORAGE AREA AT STORAGE BUILDING

During the 1970s, drums of hazardous materials, including solvents and degreasers, were stored along the exterior walls of the old Storage Building. The drums were stored on the unpaved ground surface. This practice ceased in the late 1970s, with the construction of the new warehouse facility.

Groundwater sampling and analysis conducted in 1990 as part of the investigation of the No. 2 fuel oil discharge associated with the Emergency Diesel Generator underground fuel line identified tetrachloroethene at low levels. The tetrachloroethene concentrations ranged from not detected to 58 ppb in Hydropunch® samples and from not detected to 400 ppb in a monitoring well. The data suggest not a single source, but multiple sources that had been contributing to contamination over a long period of time. The results identified the highest tetrachloroethene concentrations in the vicinity of the old machine shop and storage building. Soil sampling was not conducted during the investigation.

### 5.41.1 Soil Sampling

Soil sampling was conducted in the area of the old Storage Building because the area at which drums were stored was not paved and previous groundwater sampling has identified low levels of

tetrachloroethene in the groundwater. Soil samples were collected around the perimeter of the old Storage Building, the area at which the drums were formerly stored.

Twelve soil samples were collected and analyzed for TPH, VOCs+10, BN/AEs+25, and/or PCBs, PP Metals, and iron.

### 5.41.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the former drum storage area near the Storage Building identified TPH at concentrations ranging from not detected (<24 ppm) to 186 ppm. VOCs were not detected above the method detection limit, with the exception that TICs were detected in one sample with a total concentration of 0.97 ppm. Target BN/AEs were detected in all of the samples at concentrations ranging from 0.005 ppm to 0.34 ppm. TICs were also detected in all of the samples at total concentrations ranging from 4.80 ppm to 14.16 ppm. PCBs were identified in the two samples analyzed at concentrations ranging from 0.0420 ppm to 0.046 ppm. PP Metals were detected in the two samples analyzed at concentrations ranging from 0.015 ppm to 126 ppm. Iron was detected in the two samples analyzed at concentrations of 2340 ppm and 6120 ppm. The detected concentrations do not exceed the NJDEP Criteria.

## 5.42 AOC-16D HISTORICAL STORAGE OF CHROMATE SOLUTION

From approximately 1969 until 1983, tank trailers containing chromate solution were stored at an area currently occupied by the New RadWaste Building. The area measured approximately 80 ft by 80 ft. Approximately 10 to 15 tank trailers containing chromate solution were stored in this area for several years.

### 5.42.1 Soil Sampling

Soil samples were collected at 0.5 ft above groundwater to determine if residual contamination exists. Due to the time which has elapsed since chromate was last used at the site, it is unlikely that the chromate (if present) would be in the shallower soil intervals and, therefore, shallow soil sampling was not proposed. As no staining or other evidence of a release was observed, the sample locations were selected randomly.

Four soil samples and one duplicate sample were collected and analyzed for total and hexavalent chromium.

### 5.42.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Chromate Storage Area identified concentrations of total chromium ranging from 2.43 ppm to 20.1 ppm. The concentrations detected do not exceed the NJDEP Criteria. (Note: the criterion developed for trivalent chromium was used for comparisons with total chromium results since there is no criterion for total chromium). Hexavalent chromium was not detected above the method detection limit.

### 5.42.3 Groundwater Sampling

Groundwater samples were collected from wells W12 and W13, located generally downgradient of AOC-16D. Wells W12 and W13 are a nested pair of wells installed in the Cape May Aquifer and Cohansey Aquifer, respectively. Due to their location, monitoring wells MW-1I-1A and -2A were also used to evaluate AOC-16D. (Note: The results from wells W12, W13, MW-1I-1A, and MW-1I-2A were also used to evaluate potential impact to groundwater in AOC-16E).

The four groundwater samples were analyzed for total and hexavalent chromium.

### 5.42.4 Groundwater Analytical Results

The laboratory analysis of groundwater samples collected from existing wells W5 and W6 installed in the Cape May and Cohansey Formations, respectively, and MW-1I-1A and MW-1I-2A, recently installed in the Cape May Formation, identified total chromium concentrations ranging from 0.28 ppb to 23.6 ppb. The concentrations detected do not exceed the NJDEP Criteria. Hexavalent chromium was not detected above the method detection limits.

## 5.43 AOC-16E HISTORICAL STORAGE OF CHROMATE SOLUTION

From approximately 1969 until 1983, some of the tank trailers described in AOC-16D were periodically stored at an area currently occupied by the drywell processing center and the area along the northeast corner of the Reactor Building. The area measured approximately 60 ft by 80 ft.

### 5.43.1 Soil Sampling

Soil samples were collected at 0.5 ft above groundwater to determine if residual contamination exists. Due to the time which has elapsed since chromate was last used at the site, it is unlikely that the chromate (if present) would be in the shallower soil intervals and, therefore, shallow soil sampling was not proposed. As no staining or other evidence of a release was observed, the sample locations were selected randomly.

Four soil samples were collected and analyzed for total and hexavalent chromium.

### 5.43.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the Chromate Storage Area identified concentrations of total chromium ranging from 1.6 ppm to 12.8 ppm. The concentrations detected do not exceed the NJDEP Criteria. (Note: the criterion developed for trivalent chromium was used for comparisons with total chromium results since there is no criterion for total chromium). Hexavalent chromium was not detected above the method detection limit.

### 5.43.3 Groundwater Sampling

Groundwater samples were collected from wells W12 and W13, located generally downgradient of AOC-16E. Due to their location, monitoring wells MW-1I-1A and –2A were also used to

evaluate AOC-16E. (Note: The results from wells W12, W13, MW-1I-1A, and MW-1I-2A were also used to evaluate potential impact to groundwater in AOC-16D).

The four groundwater samples were analyzed for total and hexavalent chromium.

### 5.43.4 Groundwater Analytical Results

The laboratory analysis of groundwater samples collected from existing wells W5 and W6 installed in the Cape May and Cohansey Formations, respectively, and MW-1I-1A and MW-1I-2A, recently installed in the Cape May Formation, identified total chromium concentrations ranging from 0.28 ppb to 23.6 ppb. The concentrations detected do not exceed the NJDEP Criteria. Hexavalent chromium was not detected above the method detection limits.

## 5.44 AOC-16F HISTORICAL STORAGE OF CHROMATE SOLUTION

In the late 1970s and early 1980s, three to four aboveground plastic tanks were stored in an area measuring approximately 60 ft by 20 ft along the north side of the Old RadWaste Building. Each tank had an approximate capacity of 5,000 gallons. The chromate solution was pumped from the tank trailers into the tanks and the tank trailers (AOCs-16D and –16E) were then removed from the site.

### 5.44.1 Soil Sampling

Soil samples were collected at 0.5 ft above groundwater to determine if residual contamination exists. Due to the time which has elapsed since chromate was last used at the site, it is unlikely that the chromate (if present) would be in the shallower soil intervals and, therefore, shallow soil sampling was not conducted. As no staining or other evidence of a release was observed, the sample locations were selected randomly.

Two soil samples were collected in AOC-16F and were analyzed for total and hexavalent chromium.

### 5.44.2 Soil Analytical Results

The laboratory analysis of the two soil samples collected at the Chromate Storage Area identified concentrations of total chromium of 2.24 ppm and 2.46 ppm. The concentrations detected do not exceed the NJDEP Criteria. (Note: the criterion developed for trivalent chromium was used for comparisons with total chromium results since there is no criterion for total chromium). Hexavalent chromium was not detected above the method detection limit.

## 5.45 AOC-17C AREAS OF DISCHARGE/SPILL 10-30-80 (NJDEP CASE NO. 80-10-31-6)

Approximately 15 gallons of insulating oil were released from a storage truck parked at the south side of the Diesel Generator Building.

Oil-contaminated soil, hay, and equipment were removed and disposed. Subsequent sampling of the oil indicated a PCB concentration of 38 ppm.

### 5.45.1 Soil Sampling

Soil samples were collected in the area of the release to confirm that the insulating oils did not impact soil. As no staining or other evidence of the release was observed, the sample locations were selected randomly in the area of the release.

Two soil samples were collected and analyzed for TPH and PCBs.

### 5.45.2 Soil Analytical Results

The laboratory analysis of the two soil samples collected south of the Emergency Diesel Generator Building did not identify concentrations of TPH or PCBs above the method detection limits.

## 5.46 AOC-17G AREAS OF DISCHARGE/SPILL 10-24-86 (NJDEP CASE NOS. 86-10-24-IOC/93-06-28-1317-29)

A release from the underground transfer line (AOC-5A) from the Main Oil Storage Tank (AOC-1A) to the Emergency Diesel Generator was identified when liquid was observed leaking up through the expansion joints in the concrete floor of the Storage Building. Pressure testing confirmed that the underground piping was the source of the leak. The line was taken out of service and repaired. A malfunctioning totalizer at the receiving end was identified and repaired. A policy of yearly pressure testing was instituted after the incident.

On June 26, 1995, GPUN entered into a MOA with the NJDEP for the remediation of the discharge from the underground piping. GPUN samples nine monitoring wells in the vicinity of the discharge site ranging in depth from 20 to 55 feet. Analytical results associated with the groundwater remediation are discussed in Appendix I of the PAR.

Groundwater is being monitored under the existing MOA. GPUN will continue the groundwater monitoring program in accordance with the requirements of the MOA. Monitoring will continue for an indefinite period of time, until the contaminant levels are such that the NJDEP will approve a proposal from GPUN for NFA.

Soil sampling was conducted in 1987 as part of a groundwater contamination assessment. During the investigation, two soil borings were installed approximately 80 ft west of the discharge area. The soil samples collected at the water table from these two soil borings were saturated with oil.

### 5.46.1 Soil Sampling

Soil samples were collected to determine if residual contamination exists in the area of the release and to vertically and horizontally delineate the soil contamination associated with the release from the underground transfer lines.

Eight soil samples and one duplicate sample were collected and analyzed for TPH and/or VOCs. Sample location SS-17G-4A was co-located with sample location SS-16C-2B, and sample

location SS-17G-5A was co-located with sample location SS-16C-5B. Therefore, the analytical results of TPH and VOCs from samples SS-16C-2B and SS-16C-5B are used to evaluate AOC-17G.

### 5.46.2 Soil Analytical Results

The laboratory analysis of the soil samples collected near the Emergency Diesel Generator Building identified concentrations of TPH ranging from not detected (<33 ppm) to 5,600 ppm. The detected concentrations do not exceed the NJDEP Criteria. VOCs were not detected above the method detection limits in the one sample analyzed for VOCs.

## 5.47 AOC-17H AREAS OF DISCHARGE/SPILL 08-16-87

Approximately 15 gallons of fuel oil were released from a fuel oil line on a high pressure water blaster. The oil was observed on the ground at the northwest corner of the Turbine Building.

The equipment was repaired and approximately four drums of oil-contaminated soil were excavated and disposed through the station's hazardous waste management program.

### 5.47.1 Soil Sampling

One soil sample was collected and analyzed for TPH to confirm that no residual contamination exists at the site. As no staining or other evidence of the release was observed, the sample location was selected randomly in the area of the release.

### 5.47.2 Soil Analytical Results

The laboratory analysis of the soil sample collected northwest of the Turbine Building identified a TPH concentration of 83 ppm, which does not exceed the NJDEP Criteria.

## 5.48 AOC-17M AREAS OF DISCHARGE/SPILL 6-25-89

A discharge of approximately 10 gallons of non-PCB transformer oil occurred as a result of the failure of a gasket on the M1A Main Station Transformer. The transformer was de-energized and the leak was terminated.

The discharged oil and oil-contaminated soil/stones were removed for disposal through the station's waste management program.

Sampling of this AOC was addressed with the sampling of AOC-15K (Section 5.32).

## 5.49 AOC-17N AREAS OF DISCHARGE/SPILL 7-11-89

Approximately 336 gallons of non-PCB mineral oil was discharged from the M-1B Main Station Transformer when the transformer failed on July 11, 1989. Transformer M1B is located outdoors near the west side of the Turbine Building. The Ocean County Health Department (OCHD), the NJDEP Communications Department and the National Response Center were notified of the event on July 11, 1989.

The Discharge Canal was inspected at 1:30 AM and 5:30 AM following the event; no floating product was detected. The laboratory analysis for total petroleum hydrocarbons of twelve surface water and storm drain water samples collected at catchbasins, at the discharge outfalls to the Discharge Canal and from the Discharge Canal indicated that the oil/water mixture did not migrate via the storm drain/outfall system. Laboratory analysis of the oil remaining in the transformer confirmed that the oil contained less than 1 ppm PCBs.

The majority of the oil released from the transformer was released to the northeast, south and west sides of the unit. Following the excavation of approximately 120 cubic yards of soil, soil samples were collected from core borings. The analytical results of post-excavation soil sampling are summarized in the following table.

**Total Petroleum Hydrocarbon Results - Post-Excavation Soil Sampling**

| Location<br><br>Units<br>Interval | NJDEP Residential Direct Contact Soil Cleanup Criteria ppm | West Side of Transformer ppm | South Side of Transformer ppm | Southeast Side of Transformer Ppm | Northeast Side of Transformer ppm |
|---|---|---|---|---|---|
| 1 ft bgs | 10,000* | < 100 | **20,700** | < 100 | **12,700** |
| 2 ft bgs | 10,000* | < 100 | < 100 | < 100 | 7,900 |
| 3 ft bgs | 10,000* | < 100 | < 100 | < 100 | 3,200 |

* Criteria refers to concentration of total organic compounds.

Based on the analytical results, the following additional soils were excavated:

- West side – the following additional soil was excavated from the west side of the structure resulting in residual contamination of less than 100 ppm TPH; and,
- Northeast side – an additional 1 foot of soil was excavated, resulting in residual contamination of 12,700 ppm TPH.

Additional soil removal at the south, southeast and northeast sides could not be conducted due to concerns for the structural integrity of the transformer pad and nearby transmission towers. The cleanup was inspected and approved by Ms. Jennifer Magruder of the OCHD on July 24, 1989.

Sampling of this AOC was addressed with the sampling of AOC-15K (Section 5.32).

## 5.50 AOC-18B FORMER LAYDOWN AREA AT NORTHEAST PORTION OF OCNGS

An area identified as the Laydown Area is located at the northeast portion of the OCNGS, north-northeast of the Fuel Tank Area. The Laydown Area is an unpaved gravel/soil area on which a temporary building was located in 1991 and 1992. Grit blasting was performed in the building. A four-foot high soil pile measuring approximately 50 ft by 25 ft is located in this area. The soil pile was generated during the construction of the office building in 1994.

### 5.50.1 Soil Sampling

Soil samples were collected in the area used for sand blasting because there is evidence that sand blasting debris was deposited on the ground surface. Because of the potential concerns for metals contamination, the five samples collected were analyzed for PP Metals and iron.

### 5.50.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the former Laydown Area identified PP Metals at concentrations ranging from 0.014 ppm to 48.5 ppm. The sample results for one sample identified concentrations of antimony (22.9 ppm) and zinc (1,790 ppm), which exceed the respective NJDEP RDC Criteria (14 ppm and 1,500 ppm). The zinc concentration also exceeds the NJDEP NRDC Criteria (1,500 ppm). No other PP metal was detected above the NJDEP Criteria. Iron was detected at concentrations ranging from 1,230 ppm to 31,700 ppm, which are in compliance with the NJDEP Criteria.

## 5.51 AOC-19A JOY AIR COMPRESSOR

The Joy Air Compressor Building is located at the north side of the Turbine Building. The Joy Air Compressors are located on a poured concrete pad with no secondary containment. The vent valves are located on the edge of the concrete pad; some staining was observed on the soil/gravel at the west end of the Compressor Building.

### 5.51.1 Soil Sampling

One soil sample was collected in the area of the staining at the west end of the Compressor Building and was analyzed for TPH.

### 5.51.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Joy Air Compressor detected TPH at a concentration of 33 ppm, which is in compliance with the NJDEP Criteria.

## 5.52 AOC-19B FORMER MOBILE COMPRESSOR

During the 1980s, a mobile compressor was staged at the exterior northwest corner of the Turbine Building. The mobile compressor was used while the Joy Air system was out of service for major repairs. As no staining or other evidence of the release was observed, the sample location was selected randomly in the area of the release.

### 5.52.1 Soil Sampling

One soil sample was collected in the area at which the mobile compressor was located during the 1980s. The soil sample was analyzed for TPH.

### 5.52.2 Soil Analytical Results

The laboratory analysis of the soil sample collected at the Former Mobile Compressor detected TPH at a concentration of 37 ppm, which does not exceed the NJDEP Criteria.

## 5.53 AOC-19D SKID-MOUNTED AIR COMPRESSOR

A skid-mounted air compressor is located on the south side of the New RadWaste Building. The air compressor is located on asphalt, adjacent to an unpaved area. The compressor has been at this location for approximately six years. Staining was observed on the asphalt and adjacent soil.

### 5.53.1 Soil Sampling

Two soil samples were collected at the unpaved area adjacent to the air compressor. Sample locations were biased to staining observed in this AOC.

The samples were analyzed for TPH and/or PAHs.

### 5.53.2 Soil Analytical Results

The laboratory analysis of soil samples collected at the skid-mounted air compressor detected TPH at concentrations ranging from 270 ppm to 340 ppm. These concentrations do not exceed the NJDEP Criteria. PAHs were not detected above the method detection limits in the one sample analyzed for PAHs.

## 5.54 AOC-21A SOUTH WELL

The South Well (Permit No. 33-1095) is 300 feet deep, into the Kirkwood Formation. The South Well is located near the Diesel Generator Building and is used for potable water and as a source of make-up water for plant systems.

### 5.54.1 Groundwater Sampling

A groundwater sample was collected from the South Well to evaluate potential impact to groundwater from historic releases in the area.

The groundwater sample was analyzed for VOCs+10 and BNs+15.

### 5.54.2 Groundwater Analytical Results

The laboratory analysis of the South Well groundwater sample identified one VOC at a concentration of 1.4 ppb and TICs at a total concentration of 2.00 ppb, which do not exceed the NJDEP Criteria. BNs were not detected above the method detection limit.

## 5.55 AOC-21B NORTH WELL

The North Well (Permit No. 3323652) is 162 feet deep, into the Kirkwood Formation. The North Well is located north of the North Parking Area and is used for potable water and as a source of make-up water for plant systems.

### 5.55.1 Groundwater Sampling

A groundwater sample was collected from the North Well to evaluate potential impact to groundwater from the MTBE identified in groundwater at AOC-1G. The sample was analyzed for VOCs+10, MTBE and TBA.

### 5.55.2 Groundwater Analytical Results

The laboratory analysis of the North Well groundwater sample identified two VOCs at concentrations of 1.6 ppm and 4.2 ppm. These concentrations do not exceed the NJDEP Criteria. MTBE and TBA were not identified above the method detection limits.

## 5.56 AOC-24 UPLAND CONFINED DISPOSAL FACILITY

The Upland Confined Disposal Facility (CDF) is a portion of the site located east of U.S. Route 9 used for the deposition of dredged material resulting from periodic maintenance dredging in the Intake and Discharge Canals. Maintenance dredging was conducted in 1978, 1984 and 1997. The CDF consists of 17.5 acres and is identified as Block 100, Lots 13 through 16 & 20. The CDF is surrounded by perimeter fencing; locked gates restrict access to the site.

In January 1998, OCNGS submitted to the NJDEP Land Use Regulation Program a revised Final Closure Plan and deed notice (formerly known as Declaration of Environmental Restriction or DER), in compliance with applicable permit conditions. The Final Closure Plan has not received formal approval.

GPUN subsequently requested that the NJDEP approve the upland CDF for interim closure to accommodate future dredging projects. The analytical results of the sampling and analysis conducted as part of this request are summarized below. Samples from locations 1, 2, and 3 were composited into sample C-123, and samples from locations 4, 5, and 6 were composited into sample C-456. The exposure level for the alteration, improvement or disturbance of the area was identified as the NJDEP RDC Criteria.

**Analysis of Dredging Samples**

| SAMPLE ID COMPOUND | RDC SCC mg/kg | GPNFR9 mg/kg | GPNFR8 mg/kg | GPNFR7 mg/kg | C-456 mg/kg | C-123 mg/kg | Avg. Conc. mg/kg |
|---|---|---|---|---|---|---|---|
| Antimony | 14 | 2.2 B | 3.6 B | <9.9 | <5.5 | <6.9 | 3.4 |
| Arsenic | 20 | 12.7 | 19.0 | 32.7 | 12.1 | 15.9 | 18.5 |
| Barium | 700 | 31.5 B | 44.9 B | 83.7 B | 45.1 B | 56.4 B | 52.3 |
| Beryllium | 1 | 0.89 B | <0.03 | 1.3 B | 0.82 B | 0.89 B | 0.78 |
| Cadmium | 1 | 1.2 | 0.68 B | 1.6 B | 0.40 B | <0.17 | 0.79 |
| Chromium | 120,000 | 42.7 | 63.4 | 111 | 48.4 | 61.2 | 65.3 |
| Copper | 600 | 34.5 | 47.1 | 136 | 65.7 | 52.6 | 67.2 |
| Lead | 400 | 73.3 | 76.1 | 129 | 40.8 | 14.2 | 66.7 |
| Manganese | No criteria | 203 | 304 | 578 | 164 | 252 | 300 |
| Mercury | 14 | 0.91 | 1.7 | 1.1 | <0.28 | <0.37 | 0.81 |
| Nickel | 250 | 19.7 | 29.5 | 48.3 | 22.7 | 30.7 | 30.2 |
| Selenium | 63 | 4.2 | 4.3 | 3.7 | 1.5 | <1.5 | 2.89 |
| Silver | 110 | 0.91B | 0.30 B | <2.2 | <1.2 | <1.6 | 0.7 |
| Thallium | 2 | 3.6 | 3.3 | <3.8 | <2.1 | 2.7 B | **2.5** |
| Vanadium | 370 | 42.9 | 57.9 | 102 | 47.5 | 63.4 | 62.7 |
| Zinc | 1,500 | 134 | 192 | 374 | 178 | 108 | 197 |
| Cyanide | 1,100 | <1.2 | <1.5 | <1.6 | <1.1 | <1.4 | Not analyzed |

Note: B = the result was greater than the Instrument Detection Limit, but less than the reporting limit.

The average concentration of sediment samples are in compliance with the NJDEP RDC Criteria for all PP Metals with the exception of thallium. The request for interim closure has not received formal approval, although the NJDEP has indicated their concurrence in telephone conversations.

### 5.56.1 Groundwater Sampling

Three groundwater monitoring wells were installed downgradient of the Upland Confined Disposal Facility. These wells were sampled and analyzed to determine if groundwater has been impacted by the presence of the facility.

Three groundwater samples and one duplicate sample were analyzed for VOCs+10, BN/AEs+25, PCBs and PP Metals

### 5.56.2 ·Groundwater Analytical Results

The laboratory analysis of the groundwater samples collected at the Upland Confined Disposal Facility identified one VOC with concentrations ranging from 1.5 ppb to 2.0 ppb in the four samples. One BN/AE was detected at a concentration of 1.8 ppb in one of the samples. PCBs were not detected above the method detection limit. PP Metals were detected in the four samples at concentrations ranging from 0.280 ppb to 130 ppb. The detected concentrations do not exceed the NJDEP Criteria.

## 6.1 INTRODUCTION

According to the New Jersey Technical Requirements for Site Remediation, an ecological evaluation must be conducted for all sites under remedial investigation. This ecological evaluation was conducted to evaluate whether site-related contamination poses a threat to the ecological receptors on or in close proximity to OCNGS.

The objective of the ecological evaluation is to examine the Site for the co-occurrence of environmentally sensitive natural resources, a chemical migration pathway to these sensitive resources, and contaminants of potential ecological concern (COPECs). The ecological evaluation included the use of existing Site documents, analytical data, and the results of a qualitative site visit. Documentation pertaining to the ecological evaluation is provided in Appendix G.

## 6.2 SUMMARY OF ECOLOGICAL EVALUATION

As a result of this ecological evaluation, it has been determined that site-related contamination poses no significant threat to the ecological system surrounding GPUN's facilities. While environmentally sensitive natural resources are present and chemical migration pathways exist, the contaminants of potential ecological concern are not widely distributed, and are not present in concentrations to represent a significant exposure concern.

The surface water evaluation concluded that the concentrations of most compounds were below the appropriate screening criteria or background levels. Copper, which exceeded applicable screening criteria, is not bio-available. This was determined through toxicity tests done in conjunction with an Effluent Characterization Study conducted in 1995.

A groundwater collection system limits the subsequent migration of site-related contaminants, including tetrachloroethene and those associated with the fuel oil release, to surface waters of the Intake/Discharge Canals.

Metals in sediment are below the appropriate screening criteria or background levels. Although PAHs are present in sediments above screening criteria, they do not represent an important media exposure concern. Two compounds, acenaphthene and fluorene, found in higher concentrations can be attributed to creosote–treated wooden structures found in the Discharge Canal as opposed to being linked to facility operation. The highest concentrations of all PAHs were found at the sampling location closest to these structures (SED-5). Concentrations at other sampling locations were substantially lower, indicating that PAH contaminants are not widely distributed.

Additionally, due to the high velocity and volume of the cooling water flow in Discharge Canal, there is a lack of a viable benthic infaunal community to serve as a receptor to contaminants. This is due to the fact that the bottom of the Discharge Canal is scoured and generally free of a depositional area. This is supported by the fact that sediment sample SED-3 could not be collected due to a lack of media.

## 6.3 SITE VISIT

A site visit was conducted by a URSGWC biologist on December 3, 1999. The ecological checklist, provided as part of the *Ecological Risk Assessment Guidance For Superfund: Process For Designing and Conducting Ecological Risk Assessments* (EPA, June 5, 1997) was completed during this visit and is included as Attachment G1. Photographs from the site visit are presented as Attachment G2. Photograph locations are identified on Figure G-1.

### 6.3.1 Site Description

Approximately 70% of the western portion of the Site is vegetated while the remaining area is comprised of parking lots, industrial buildings, and other impervious surfaces. The existing vegetative cover primarily consists of an herbaceous field community (about 40%) and dense woods (about 30%). An altered tidal channel borders the outer perimeter of the generating station. The channel provides cooling water for the nuclear facility and has been deepened and lengthened to facilitate the daily operations of the generating station. The banks of the channel have been stabilized with rip-rap and poured concrete. The channel is broken into intake and discharge sections and is commonly referred to as the Intake/Discharge Canal.

Oyster Creek, located in the southwestern portion of the Site, empties into the Discharge Canal. The Discharge Canal ultimately empties into Barnegat Bay. There is a white cedar dominated wetland community adjacent to Oyster Creek, south of the Discharge Canal. It extends up to and beyond the Site property line. Hydrology for this wetland is provided by Oyster Creek. Locations of this wetland and others on and in close proximity to OCNGS are presented in Figure G-3. There is a drainage swale in the northeastern portion of the Site just west of US Route 9. The drainage swale is manmade and was created to prevent saltwater intrusion to groundwater located on Site property. Figure G-1 presents the locations of these areas.

Species of vegetation identified in the western portion of the Site included:

| Common Name | Scientific Name |
|---|---|
| Pitch Pine | *Pinus rigida* |
| White Oak | *Quercus alba* |
| Red Oak | *Quercus rubra* |
| Sasafrass | *Sassafras albidum* |
| Atlantic White Cedar | *Chanaecyparis thyoides* |
| Red Cedar | *Juniperus virginiana* |
| Trident Red Maple | *Acer rubrum trilobum* |
| Common Waxmyrtle | *Myrica cerifera* |
| Northern Bayberry | *Myrica pennsylvanica* |
| Sweetbay | *Magnolia virginiana* |
| Inkberry | *Ilex glabra* |
| Winged Sumac | *Rhus copallina* |

| Common Name | Scientific Name |
|---|---|
| Panic Grass | *Panicum lanuginosum* |
| Narrowleaf Bushclover | *Lezpedeza angustifolia* |
| Sweetpepper Bush | *Clethra alnifolia* |
| Rice Cutgrass | *Leersia oryzoides* |

The mixed pine-oak forest is located inside the "horseshoe" formed by the Intake/Discharge Canals. Dense stands of trees are also located adjacent to US Route 9. Grassland communities dominate clearings among the forested areas and near the canal. Red cedars grow sparsely in the grasslands. Wetland vegetation, including Atlantic white cedar, was found near to and extending beyond the southern property line of the western portion of the Site. This area is highlighted as an Environmentally Sensitive Natural Resource on Figure G-1.

Avifauna observed during the site visit included:

| Common Name | Scientific Name |
|---|---|
| Great Blue Heron | *Ardea herodias* |
| Fish Crow | *Corvus ossifragus* |
| Belted Kingfisher | *Megaceryle alcyon* |
| Blue Jay | *Cyanocitta cristata* |
| House Sparrow | *Passer domesticus* |
| Herring Gull | *Larus argentatus* |
| Ring-Billed Gull | *Larus delawarensis* |
| Mallard | *Anas platyrhyncos* |
| American Black Duck | *Anas rubripes* |

No mammals were seen on the day of the site visit although numerous tracks were noted. These include those left by White-tailed deer (*Odocoileus virginianus*). Conversations with facility personnel revealed that many mammals including Cottontail Rabbit (*Sylvilagus floridanus*), Racoon (*Procyon loter*), and Red Fox (*Vulpes vulpes*) have been observed on the western portion of the property. River otter (*Lutra canadensis*) have also been observed, but only near the confluence of Oyster Creek and the Discharge Canal.

### 6.3.2 Areas Investigated

The areas known to have possibly been adversely affected by hazardous materials spills or similar events are those areas near or adjacent to the generating station. Environmental media exposed to spills or releases include the surface waters and sediments of the Intake/Discharge Canals. Therefore, during the visit only the western portion of the Site was included in the ecological evaluation. This includes the areas within the horseshoe shaped island formed by the Intake/Discharge Canals and the outer areas extending up to the property lines. Additional information provided by Site personnel and a review of the Site history did not warrant evaluation of areas to the east of Route 9. This is further supported

by the investigation and sampling activities at three AOCs on the eastern portion of the Site (AOC-2D, AOC-24, and AOC-14B) that did not identify compounds of potential concern at concentrations above their respective NJDEP Criteria.

Hydrogeologic modeling indicates that groundwater migration in the western portion of the Site is generally in the direction of the Intake/Discharge Canals. It was therefore not necessary to collect surface soil samples or conduct any investigation beyond a qualitative description of the ecological inventory in the forested and grassland habitats occurring on Site property. Efforts were concentrated on characterizing ecological risk by investigating the surface waters and sediments as possible pathways.

## 6.4 ENVIRONMENTALLY SENSITIVE RESOURCES

Environmentally sensitive resources that occur on Site property include approximately 900 feet of Oyster Creek, the surface waters of the Intake/Discharge Canals, and the cedar dominated wetland located adjacent to the southwestern portion of the Site. The cedar dominated wetland is hydrogeologically connected to Oyster Creek and extends beyond the property line of OCNGS. These environmentally sensitive areas are cited pursuant to N.J.A.C. 7:1E-1.8.

In the Site vicinity, Oyster Creek is included in the general surface water classification for both fresh water and saline water estuaries (FW2-NT/SE1). The waters of the Intake/Discharge Canals are also in this category.

Based on records of the NJDEP Natural Heritage Program database, the barred owl (*Strix varia*), which is a state threatened species, may be on or may utilize the Site. It is also possible that the bog asphodel (*Narthecium americanum*), a state endangered plant species may also be on the Site. Several other state threatened, endangered or rare species have been documented in the immediate vicinity and may be present on the Site. These include the northern pine snake (*Pituophis melanoleucus melanoleucus*), pine barren boneset (*Eupatorium resinosum*), New Jersey rush (*Juncus caesariensus*), awned mountain mint (*Pycnanthemum setosum*), and curly grass fern (*Schizaea pusilla*). In addition to individual species records, the Middle Branch Forked River Natural Heritage Priority Site is located northwest of the Site.

## 6.5 CONTAMINANT MIGRATION PATHWAYS TO ENVIRONMENTALLY SENSITIVE RESOURCES

Based on documented spills and releases at the Site and the results of prior remedial investigations, the potential for contaminated surface water and sediments is the main concern at the Site. Information pertaining to spills and releases at the Site is provided in Section 5.0 of this report.

### 6.5.1 Terrestrial Exposure Pathway

The contaminant sources originate from within the fenced facility area. This area is primarily covered with impervious surfaces and structures. The facility area is not accessible to ecological receptors, nor does this area provide suitable habitat; therefore, any surface soil contamination associated with spills or releases within the facility area are not of ecological concern. The contaminant migration pathway is via contaminated soils and groundwater which seeps into the Discharge Canal. The direction of groundwater flow has been determined through hydrogeologic modeling. A conceptual contaminant exposure pathway is shown in Figure G-4.

### 6.5.2 Aquatic Exposure Pathway

Contaminated groundwater originating from the fenced facility area may potentially impact the surface water and sediments of the Intake/Discharge Canals. The Intake/Discharge Canals are hydrogeologically connected to Oyster Creek, which is hydrogeologically connected to the cedar dominated wetland. The Middle Branch Forked River Natural Heritage Priority Site is located northwest of the Site. Since it is upgradient of the Site, this area is not expected to be impacted by any potential site-related contamination.

Sediments in the Intake/Discharge Canals are limited to depositional areas. This is due to the high volume and velocity of the cooling water flow in the Discharge Canal. The bottom of the Discharge Canal is scoured and as such, the depositional area is very small; it is generally limited to canal banks. Therefore, the presence of a viable benthic infaunal community to serve as a receptor to contaminants found in sediments is limited. This is supported by the fact that sediment sample 3 (SED-3) could not be collected due to a lack of media.

Surface water runoff from potentially contaminated areas within the facility is monitored prior to discharge to the Intake/Discharge Canals in accordance with the facility NJPDES Permit. Stormwater runoff in areas outside of the plant area is directed to drainage basins (AOC-11). The analytical results of surface soil sampling in these areas identified no compounds above the NJDEP Soil Cleanup Criteria.

The above ground storage tank (AOC-1G) adjacent to the parking area has been identified as an area of groundwater contamination. Methyl tertiary-butyl ether (MTBE), a volatile organic compound, is the contaminant of concern for this area. The contaminant plume has been delineated and does not extend to surface water. Therefore, there is no complete exposure pathway for this potential contaminant source.

## 6.6 CONTAMINANTS OF POTENTIAL ECOLOGICAL CONCERN (COPECs)

The potential for contaminated surface water and sediments is the main concern at the Site. The sample analytes include VOCs, BN/AEs, TPH, PCBs, PP Metals, hexavalent and total chromium, and iron. Of particular concern among the BN/AEs are the PAHs. These contaminants were identified based on information obtained from the remedial investigation and records of historic spills on the property.

Surface water and sediment samples were collected on November 16 and 17, 1999 in the Intake/Discharge Canals and at a background location. Due to the surface water flow loop created by the high volume plant intake, a background sampling point had to be located outside of this loop. The remote background sample location is shown on Figure G-2.

Seven surface water samples and seven sediment samples, plus one duplicate sample for each matrix, were collected. One background sample per matrix was also collected. On-site sample locations are shown on Figure G-1. The background sample is shown on Figure G-2. It is important to note that sediment sample three (SED-3) could not be collected due to a lack of media. Samples were analyzed for the contaminants of concern listed above; sediment samples were also analyzed for total organic carbon (TOC) and grain size. Analytical data are presented in Tables G-1 and G-2. Field blank and trip blank analytical results from samples collected with the surface water and sediment samples are presented in Tables G-3 and G-4.

Maximum and average contaminant concentrations were identified. Maximum values were compared to applicable ecological benchmarks or Threshold Limit Values (TLVs). When available, benchmark criteria were primarily taken from NJDEP documents. When two or more NJDEP benchmarks were given based on environmental setting, the lower value was used. The study area is classified as both fresh water and an estuary, and therefore benchmarks for each environmental setting are potentially appropriate. Since NJDEP criteria were not available for all analytes, additional reference materials were reviewed in order to identify criteria for as many analytes as possible.

A summary of the screening level evaluation is provided in Tables G-5 and G-6 for surface water and sediment, respectively. The analytes detected in the on-site samples are listed in these tables. The tables specify literature references for the TLVs which were applied for each analyte. In addition to determining the maximum and average concentrations, the frequency of detection was also calculated in order to take into consideration contaminant distribution.

### 6.6.1 Surface Water COPECs.

New Jersey Surface Water Quality Standards (N.J.A.C. 7:9B) were used to identify surface water criteria. In the absence of criteria from this source, benchmarks were obtained from the Federal Ambient Water Quality Criteria for Acute/Chronic Aquatic Life Protection (40 CFR Part 131) or National Ambient Water Quality Standards.

Maximum Site concentrations as determined from the analysis of unfiltered samples were compared to selected TLVs. Benchmarks were not identified for di-n-octylphthalate or beryllium. The maximum Site concentrations for four metals (arsenic, copper, selenium, and thallium) exceeded TLVs (Table G-5). With the exception of di-n-octylphthalate, organic compounds were either not detected in Site samples, or were below TLVs. Although detected in one surface water sample (SW-8), di-n-octylphthalate is not considered to be a Site-related constituent since it is a common laboratory contaminant and was also detected in the laboratory method blank associated with that sample.

Following this initial screening level evaluation, analytes that exceeded TLVs or for which TLVs were not identified were retained as COPECs. Potential surface water COPECs which require further evaluation are arsenic, beryllium, copper, selenium, and thallium.

These analytes were compared to background concentrations (Table G-7). Comparison to background concentrations is appropriate and allows consideration of the regional water quality. Regional water quality is likely to be impacted by stormwater runoff from roadways and parking lots in the area. Contamination associated with boating and boat maintenance is also likely to adversely impact regional water quality. Nearby private boat slips and commercial marinas are potential sources of both organic and metal contaminants from petroleum compounds and marine paints. Petroleum compounds are a common source of PAH contaminants and marine paints contain a variety of metal compounds. These non-point pollution sources contribute to water and sediment quality in the area. Therefore, the concentrations of analytes identified as COPECs cannot necessarily be solely attributed to the OCNGS.

Both arsenic and beryllium were lower than background concentrations and are therefore deleted from the list of surface water COPECs for the Site.

Thallium was detected in only one on-site surface water sample (SW-8). The concentration was in the same order of magnitude as the background concentration (4.04 ppb at SW-8 vs. 2.23 ppm at background, SW-1). This difference could be attributed to natural variation. Due to the low frequency of detection at a concentration similar to background, thallium is not considered to present a Site-related ecological concern.

To fulfill requirements associated with the NJPDES Permit for the OCNGS, an Effluent Characterization Study and Whole Effluent Toxicity Testing were conducted in 1995. Three discharge locations and one sump were evaluated in these studies. The Effluent Characterization Study determined that the copper concentrations in effluent discharges from the OCNGS were above influent levels. Copper can be attributable to the heat exchangers which are part of the plant operations. The existing NJPDES Permit for the OCNGS does not include a discharge limit for copper.

Although copper is present in OCNGS effluents, it is not in a form that is bio-available. The results from the acute and chronic whole effluent toxicity (WET) studies consistently demonstrated that the OCNGS effluents did not cause significant levels of toxicity to aquatic organisms. The WET studies were conducted quarterly in 1995 utilizing undiluted effluent from each discharge location. The acute and chronic bioassay results showed that the percent mortality of test organisms in 100% effluent did not appear to be significantly different than mortality in the controls. No adverse effects were observed in test organisms during the chronic testing with 100% effluent. The results of these studies reflect the minimal toxicity of the OCNGS effluents. Therefore, it can be concluded that copper in surface water does not present an ecological concern.

Only the influent and sump effluent were analyzed for selenium in the Effluent Characterization Study. Therefore, despite the results of the toxicity testing, selenium as a potential COPEC was evaluated further. In order to identify any potential environmental

concern, the initial COPEC screening is, by design, an extremely conservative approach. A more realistic approach to evaluating environmental concerns was employed to address selenium. This was accomplished by selecting benchmarks more appropriate to Site conditions rather than applying the most stringent screening criteria.

Given the proximity of the Site to Barnegat Bay, saltwater criteria were considered most applicable to Site conditions. Saltwater criterion for continuous exposure as listed in the Federal Ambient Water Quality Criteria (40 CFR Part 131) was utilized. Following comparison of the maximum Site concentration to saltwater benchmarks, selenium was deleted from the list of surface water COPECS (Table G-10). This is consistent with the findings of the WET testing which concluded that the OCNGS effluents exhibit minimal toxicity.

### 6.6.2 Sediment COPECs.

NJDEP Guidance for Sediment Quality Evaluations was the primary source used for identification of sediment benchmarks or TLVs. Additional sources were utilized in order to identify TLVs for as many analytes as necessary. If more than one TLV was identified for a particular analyte, the lower value was applied.

Following comparison of maximum Site concentrations to TLVs, several PAHs and metals were identified as COPECs for sediment. Specific analytes are listed in Table G-6. Analytes which exceeded TLVs and those for which no TLVs were identified were then compared to background concentrations (Table G-8). The background comparison resulted in the removal of nearly all metals from the list of COPECs, indicating that Site conditions are similar to those throughout the area. Regional sediment quality, similar to surface water quality, is also affected by highway and urban runoff as well as marine operations (e.g., recreational boating). Antimony and selenium, which were not detected in the background sample, were detected in only one Site-related sediment sample. Therefore, due to the low frequency of occurrence, these metals are not considered to present a Site-related ecological concern.

Following comparison to background concentrations, di-n-octylphthalate was the only organic non-PAH compound that was retained as a COPEC for sediment. This compound is a common method blank contaminant and was detected in the method blank(s) associated with all of the sediment samples. This compound is therefore attributed to laboratory contamination and is not considered a Site related constituent.

Following the initial screening and comparison to background, several PAHs are retained as COPECs for sediment and require further evaluation. Table G-9 presents a summary of the analytes retained as COPECs following this initial screening evaluation.

### 6.6.3 Level 2 Sediment COPEC Screening

In order to identify any potential environmental concern, the initial COPEC screening is, by design, an extremely conservative approach. The Level 2 COPEC screening takes a more realistic approach to evaluating environmental concerns. Rather than selecting the most

stringent benchmarks available as in the initial screening, Level 2 screening benchmarks that were most appropriate for Site conditions were selected.

Given the proximity of the Site to Barnegat Bay, estuarine/marine sediment criteria were considered most applicable to Site conditions. Sediment COPECs identified in the initial screening were compared to the appropriate criteria. Sediment benchmarks were obtained from Effects Range-Low (ERL) and Effects Range-Medium (ERM) values for marine and estuarine sediments (Long et. al., 1995). A summary of these comparisons is presented in Table G-11.

Following comparison of maximum Site concentration values to estuarine sediment ERL benchmarks, three additional PAH compounds were removed from the list of COPECs. Fourteen PAH compounds are retained as COPECs. With the exception of acenaphthene and fluorene, exceedances of most ERLs are relatively low. Maximum site concentrations for all but three PAHs (excluding acenaphthene and fluorene) are no more than six times the respective ERL values. When mean Site concentrations are compared to sediment ERL benchmarks, 10 PAH compounds are retained as COPECs. Acenaphthene and fluorene present the greatest level of concern.

Sediment sample SED-5 revealed the highest concentration of all PAH compounds, including acenaphthene and fluorene (3.9 and 4.3 mg/kg, respectively). It is important to note that this sample location is in very close proximity to a bulkhead and former railroad trestle. Each structure is constructed of wood treated with creosote to prevent marine woodborer damage. Acenaphthene and fluorene make up approximately 20% of creosote. Therefore, it is probable that the higher concentrations of these compounds found at this sampling location can be directly attributed to creosote leaching into the Discharge Canal from the bulkhead and railroad trestle. The concentrations of each of these compounds in other sediment samples are orders of magnitude lower than in SED-5. The spatial distribution of the sample locations and respective results further link their presence to the creosote as the source. As such, it can be said that the operation of OCNGS is not the source for either of these contaminants.

If the results from SED-5 are excluded from comparison to the ERLs, eight PAH compounds exceed the ERL values by factors of approximately three or less. Only one compound, acenaphthene, exceeds the ERL by a factor of more than ten.

The PAH compounds that were detected in excess of appropriate screening criteria are typical of those associated with highway and urban runoff. The area is bounded by the Garden State Parkway and US Route 9. High volume recreational boating also contributes to sediment contamination. Most PAH compounds are naturally occurring organic compounds and are subject to natural attenuation and biodegradation. Therefore, although PAH compounds are present, they do not represent a significant media exposure concern.

## 6.7 CONCLUSION

The conclusions drawn from this ecological evaluation are presented separately for each media of concern.

### 6.7.1 Surface Water

Surface water does not present an important media exposure concern for OCNGS. This conclusion is based on the following weight of evidence:

- Whole Effluent Toxicity Tests previously conducted on the OCNGS discharge effluents demonstrated that these effluents are minimally toxic to aquatic organisms.
- A collection system is in place to remove product from groundwater near the Emergency Diesel Generator Building, the location of a historic spill. Removal of product from groundwater will limit the subsequent migration of contaminants to surface waters of the Intake/Discharge Canals.
- Volatile and semivolatile organics were either not detected in surface water samples collected from the Intake/Discharge Canals or were detected at concentrations below ecological benchmark values.
- Most detected metal concentrations were either below ecological benchmark values, or below background concentrations.

### 6.7.2 Sediment

Concentrations of compounds found in sediment do not represent an important media exposure concern for OCNGS. This conclusion is based on the following weight of evidence:

- Most PAH exceedances are low.
- Highest PAH concentrations are found only at one sampling location (SED-5).
- Metals do not present an ecological concern in sediment.
- Due to scouring, there is a lack of a viable benthic infaunal community to serve as a receptor to contaminants found in sediments.

A summary of the results of the soil and groundwater sampling and analysis conducted for this investigation is presented in this section. The AOCs are shown on Figures 2, 3, 4, 5 and 6.

- AOC-1A/4A: The laboratory analysis of soil samples collected at the Main Oil Storage Tank (also includes AOC-4A, Unloading Area) for TPH and VOC+10 identified no compounds above the NJDEP Criteria. AOC-1A/4A is discussed in Section 5.1.

  The laboratory analysis of groundwater samples collected from monitoring wells downgradient of the Main Oil Storage Tank (Unloading Area) and analyzed for VOCs and BNs identified no compounds above the NJDEP Criteria.

  Based on the analytical results of soil and groundwater sampling, GPUN recommends NFA for AOC-1A/4A.

- AOC-1D: The laboratory analysis of the soil sample collected at the Emergency Diesel Generator Waste Oil Tank for TPH and VOCs identified no compounds above the NJDEP Criteria. The containment area for the Emergency Diesel Generator Waste Oil Tank was inspected. The inspection indicated that the containment area is in good condition with no evidence of deterioration or cracking. AOC-1D is discussed in Section 5.2.

  Based on the analytical results of soil sampling conducted at the Emergency Diesel Generator Waste Oil Tank, and the inspection of the containment area, GPUN recommends NFA for AOC-1D.

- AOC-1E: The laboratory analysis of the soil sample collected at the Turbine Dirty Oil Tank for TPH and VOCs identified no compounds above the NJDEP Criteria. The containment area for the Turbine Dirty Oil Tank was inspected. The inspection indicated that the containment is in good condition with no evidence of deterioration or cracking. AOC-1E is discussed in Section 5.3.

  Based on the analytical results of soil sampling conducted at the Turbine Dirty Oil Tank, and the inspection of the containment area, GPUN recommends NFA for AOC-1E.

- AOC-1F: The laboratory analysis for TPH and PAHs of the soil sample collected near the vent from the Turbine Lube Oil Tank identified no compounds above NJDEP Criteria. AOC-F is discussed in Section 5.4.

  Based on the analytical results, GPUN recommends NFA for AOC-1F.

- AOC-1G: Groundwater sampling of a monitoring well installed downgradient to sidegradient of AOC-1G identified MTBE at 1,000 ppb in the Cape May Formation (above the NJDEP GWQS of 70 ppb). Groundwater sampling and analysis conducted by a mobile lab was used to screen samples subsequently analyzed by an off-site laboratory. Groundwater sampling and analysis of the North Well (AOC-21B) confirmed that the Kirkwood Formation has not been impacted by the MTBE detected in MW-1G-1A. Because the groundwater samples were collected using a Geoprobe®, the delineation will be confirmed with the installation, sampling and laboratory analysis of permanent

monitoring wells. The MTBE contamination identified in groundwater in AOC-1G will be addressed in the RAW. AOC-1G is discussed in Section 5.5.

The analytical results of soil sampling conducted in AOC-1G identified no compounds above the NJDEP Criteria. Based on the analytical results of soil sampling, GPUN proposes NFA for soil in AOC-1G.

- AOC-1I/4D: The laboratory analysis for total and hexavalent chromium of soil samples collected in AOC-1I (also includes AOC-4D, Unloading Area) identified no compounds above the NJDEP Criteria. AOC-1I/4D is discussed in Section 5.6.

  Analysis of groundwater samples for total and hexavalent chromium from four groundwater monitoring wells identified no compounds above the NJDEP GWQS.

  Based on the analytical results of soil and groundwater sampling, GPUN recommends NFA for AOC-1I/4D.

- AOC-2A: The laboratory analysis for TPH, VOCs+10, and BN/AEs+25 for samples collected at the Waste Drop Tank identified no compounds above the NJDEP Criteria. AOC-2A is discussed in Section 5.7.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-2A.

- AOC-2D: The analytical results for TPH of soil samples collected at the invert of the fuel oil UST prior to removal and from within the excavation after removal of the UST identified no TPH concentrations above the NJDEP Criterion. AOC-2D is discussed in Section 5.8.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-2D.

- AOC-5A: The laboratory analysis for TPH of soil samples collected along the underground piping from the Main Oil Storage Tank to the Emergency Diesel Generator Oil Storage Tank identified no TPH concentrations above the NJDEP Criterion. AOC-5A is discussed in Section 5.9.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-5A.

- AOC-5B: The laboratory analysis for TPH of soil samples collected along the underground piping from the Turbine Lube Oil Main Tank to the Turbine Dirty Oil Tank identified no concentrations above the NJDEP Criterion. AOC-5B is discussed in Section 5.10.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-5B.

- AOC-5C: The laboratory analysis for total and hexavalent chromium of soil samples collected below the invert of the underground piping from the Torus Tank to the Reactor Building identified no compounds above the NJDEP Criterion. AOC-5C is discussed in Section 5.11.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-5C.

- AOC-5G: The laboratory analysis for TPH and VOCs of the soil sample collected at the Fuel Oil Pumping Station identified no compounds above the NJDEP Criteria. AOC-5G is discussed in Section 5.12.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-5G.

- AOC-5H: GPUN inspected and photodocumented the vault for the Emergency Diesel Generator Oil Storage Tank Room Sump. The sump is in good condition with no evidence of deterioration or cracking. AOC-5H is discussed in Section 5.13.

  Based on the visual inspection, and the construction of the sump vault with 24" thick walls and floor, GPUN recommends NFA for AOC-5H.

- AOC-6A: The laboratory analysis for TPH, VOCs+10, BN/AEs, PCBs and PP Metals in the soil sample collected under the drain from the Hazardous and Non-Hazardous Waste Storage Area identified no compounds above the NJDEP Criteria. AOC-6A is discussed in Section 5.14.

  Based on the analytical results of soil sampling, GPUN recommends NFA for this AOC.

- AOCs-6B/6C: The laboratory analysis for TPH, VOC+10, BN/AEs+25, PCBs and PP Metals of soil samples collected at the Former Storage Areas identified no compounds above the NJDEP Criteria. AOCs-6B/6C are discussed in Section 5.15.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-6B and AOC-6C.

- AOC-7B: The analytical results for TPH and PCBs for sample locations SS-15M-3A and SS-15M-4A in AOC-15M are used to evaluate AOC-7B (Scrap Metal Dumpster). PCBs were identified above NJDEP Criteria. The PCBs in soil are addressed in AOC-15M. AOC-7B is discussed in Section 5.16.

- AOCs-8A/8B: The analytical results for TPH and PCBs for sample locations SS-15M-3A and SS-15M-4A in AOC-15M are used to evaluate AOC-8A (Chemical Storage Cabinet). PCBs were identified above NJDEP Criteria. The PCBs in soil are addressed in AOC-15M. AOCs-8A/8B are discussed in Section 5.17.

  The laboratory analysis for TPH, VOC+10, BN/AEs+25, and/or PCBs and PP Metals of soil samples collected at AOC-8B (Chemical Storage Cabinet) identified no compounds above NJDEP Criteria.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-8B.

- AOC-11A: The laboratory analysis for TPH, VOC+10, BN/AEs+25, and/or PCBs and PP Metals of soil samples collected along the drainage swale north of the Main Gate Entrance identified no compounds above NJDEP Criteria. AOC-11A is discussed in Section 5.18.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-11A.

- AOC-14A: The laboratory analysis for TPH, VOC+10, BN/AEs+25, and/or PCBs and PP Metals of soil samples collected at the Former On-site Wastewater Treatment Facility identified chlorobenzene in one sample at 1.6 ppm, above the NJDEP IGW Criteria of 1 ppm. AOC-14A is discussed in Section 5.19.

  The remediation of chlorobenzene in soil in AOC-14A will be addressed in the RAW.

- AOC-14B: The laboratory analysis for TPH, VOC+10, BN/AEs+25, and/or PCBs and PP Metals of soil samples collected at the Septic System at the Former Farmhouse identified no compounds above the NJDEP Criteria. AOC-14B is discussed in Section 5.20.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-14B.

- AOC-14C: The laboratory analysis for PP Metals and iron of soil samples collected at the Seepage Pit identified thallium at 8.3 ppm, above the NJDEP RDC and NRDC Criteria of 2 ppm. No other PP Metals were detected above the NJDEP Criteria. AOC-14C is discussed in Section 5.21.

  The remediation of thallium in soil in AOC-14C will be addressed in the RAW.

- AOC-15A: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer unit near the northwest corner of the Low Level RadWaste Storage Facility identified no compounds above the NJDEP Criteria. AOC-15A is discussed in Section 5.22.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15A.

- AOC-15B: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer unit near the south side of the Low Level RadWaste Storage Facility identified no compounds above the NJDEP Criteria. AOC-15B is discussed in Section 5.23.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15B.

- AOC-15C: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer unit near the southwest corner of the Material Warehouse identified no compounds above the NJDEP Criteria. AOC-15C is discussed in Section 5.24.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15C.

- AOC-15D: The laboratory analysis for TPH, PCBs, and/or VOCs+10 of soil samples collected near the transformer unit on the south side of the Level D Storage Area identified no compounds above the NJDEP Criteria. AOC-15D is discussed in Section 5.25.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15D.

- AOC-15E: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pad near the southwest corner of the New RadWaste Building identified no compounds above the NJDEP Criteria. AOC-15E is discussed in Section 5.26.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15E.

- AOC-15F: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pads northeast of the Reactor Building identified no compounds above the NJDEP Criteria. AOC-15F is discussed in Section 5.27.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15F.

- AOC-15G: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pads near the southwest corner of the Administration Building identified no compounds above the NJDEP Criteria. AOC-15G is discussed in Section 5.28.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15G.

- AOC-15H: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pads near the southwest corner of the Site Emergency Building identified no compounds above the NJDEP Criteria. AOC-15H is discussed in Section 5.29.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15H.

- AOC-15I: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pad east of the Plant Engineering Building (Aux. Office Building) identified no compounds above the NJDEP Criteria. AOC-15I is discussed in Section 5.30.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15I.

- AOC-15J: The laboratory analysis for TPH, PCBs, and/or VOCs+10 of soil samples collected around the "Blackout Transformer" west of the Pre-Treatment Building identified no compounds above the NJDEP Criteria. AOC-15J is discussed in Section 5.31.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15J.

- AOC-15K: The laboratory analysis for TPH and PCBs of soil samples collected around the transformers west of the Turbine Building identified PCBs in one sample at 0.754 ppm, above the NJDEP RDC of 0.49 ppm. Sampling in AOC-15K also addressed AOC-17M and AOC-17N). AOC-15K is discussed in Section 5.32.

  The laboratory analysis for VOCs+10, PCBs and BNs of groundwater samples in AOC-15K identified no compounds above the NJDEP GWQS with the exception of tetrachloroethene. (Note: the presence of tetrachloroethene in groundwater is discussed in AOC-16C).

  The remediation of PCB-contaminated soil in AOC-15K will be addressed in the RAW.

- AOC-15L: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pads west of the Turbine Building and south of the Chlorination Facility identified no compounds above the NJDEP Criteria. AOC-15L is discussed in Section 5.33.

  The laboratory analysis for VOCs+10, BNs+15 and PCBs of a groundwater sample from a downgradient monitoring well identified no compounds above the NJDEP GWQS.

Based on the analytical results of soil and groundwater sampling, GPUN recommends NFA for AOC-15L.

- AOC-15M: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer pad near the southeast corner of the Intake Structure identified concentrations of PCBs in one sample at a concentration of 1.600 ppm (above the NJDEP RDC Criteria of 0.49 ppm). PCBs were detected in another sample at a concentration of 2.100 ppm (above the NJDEP RDC and NJDEP NRDC Criteria of 2 ppm). AOC-15M is discussed in Section 5.34.

  The remediation of PCB-contaminated soil in AOC-15M will be addressed in the RAW.

- AOC-15N: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer near the northeast corner of the Fire Water Storage Tank identified no compounds above the NJDEP Criteria. AOC-15N is discussed in Section 5.35.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15N.

- AOC-15O: The laboratory analysis for TPH and PCBs in soil samples collected around the transformer near the southwest corner of the Trailer 300 Complex identified no compounds above the NJDEP Criteria. AOC-15O is discussed in Section 5.36.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15O.

- AOC-15P: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer unit east of the Breathing Air Compressor Building identified no compounds above the NJDEP Criteria. AOC-15P is discussed in Section 5.37.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15P.

- AOC-15Q: The laboratory analysis for TPH and PCBs of soil samples collected around the transformer unit west of the Low Level RadWaste Storage Facility identified no compounds above the NJDEP Criteria. AOC-15Q is discussed in Section 5.38.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-15Q.

- AOC-16A: The laboratory analysis for TPH, VOCs+10, BN/AEs+25, PCBs and PP Metals of soil samples collected around the Hazardous Waste Collection Station identified no compounds above the NJDEP Criteria. AOC-16A is discussed in Section 5.39.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-16A.

- AOC-16B: The laboratory analysis for TPH, VOCs+10, BN/AEs+25, PCBs and PP Metals of soil samples collected outside the western wall of the Old Machine Shop (Former Hazardous Waste Collection Shed Area) identified no compounds above the NJDEP Criteria. AOC-16B is discussed in Section 5.40.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-16B.

- AOC-16C: The laboratory analysis for TPH, VOCs, BN/AEs, PCBs and PP Metals in soil samples collected around the Former Drum Storage Area identified no compounds above

the NJDEP Criteria. The analytical results of soil sampling did not identify a potential source of the tetrachloroethene in groundwater at the Site. AOC-16C is discussed in Section 5.41.

Based on the analytical results of soil sampling, GPUN recommends NFA for soil in AOC-16C.

Tetrachloroethene in groundwater is being monitored under the existing MOA. Continued remediation of the groundwater contamination will be addressed in the RAW.

- AOC-16D: The laboratory analysis for total and hexavalent chromium of soil samples collected at the Chromate Storage Area identified no compounds above the NJDEP Criteria. AOC-16D is discussed in Section 5.42.

  The laboratory analysis of groundwater samples from the monitoring wells located downgradient of AOC-16D (and AOC-16E) identified no compounds above the NJDEP GWQS.

  Based on the analytical results of soil and groundwater sampling, GPUN recommends NFA for AOC-16D.

- AOC-16E: The laboratory analysis for total and hexavalent chromium of soil samples collected at the Chromate Storage Area identified no compounds above the NJDEP Criteria. AOC-16E is discussed in Section 5.43.

  The laboratory analysis of groundwater samples from the monitoring wells located downgradient of AOC-16E (and AOC-16D) identified no compounds above the NJDEP GWQS.

  Based on the analytical results of soil and groundwater sampling, GPUN recommends NFA for AOC-16E.

- AOC-16F: The laboratory analysis for total and hexavalent chromium of soil samples collected at the Chromate Storage Area identified no compounds above the NJDEP Criteria. AOC-16F is discussed in Section 5.44.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-16F.

- AOC-17C: The laboratory analysis for TPH and PCBs of soil samples collected near the south end of the Emergency Diesel Generator Building did not identify compounds above the NJDEP Criteria. AOC-17C is discussed in Section 5.45.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-17C.

- AOC-17G: The laboratory analysis for TPH and VOCs of soil samples collected near the Emergency Diesel Generator Building identified concentrations of TPH in compliance with the NJDEP Criterion. AOC-17G is discussed in Section 5.46.

  Based on the analytical results of soil sampling conducted in this AOC, the extent of potentially contaminated soil is limited to the area under the buildings. Residual soil contamination will be addressed in the RAW.

Groundwater is being monitored under the existing MOA and a treatment system is in place to remove free product from the water table. Continued remediation of groundwater is addressed in the RAW.

- AOC-17H: The laboratory analysis for TPH of the soil sample collected northwest of the Turbine Building identified TPH at a concentration in compliance with the NJDEP Criterion. AOC-17H is discussed in Section 5.47.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-17H.

- AOC-18B: The laboratory analysis for PP Metals of soil samples collected at the former Laydown Area identified metal concentrations ranging from 0.014 ppm to 31,700 ppm. Antimony was detected at 22.9 ppm, above the NJDEP RDC Criterion of 14 ppm. Zinc was detected at 1,790 ppm in the same sample. The zinc concentration is above the NJDEP RDC Criteria of 1,500 ppm and the NJDEP NRDC Criteria of 1,500 ppm. AOC-18B is discussed in Section 5.50.

  The analytical results of the soil sampling in AOC–18B identified an area which appears to have been impacted by the historical sand-blasting activities. GPUN will address the limited soil contamination identified in AOC-18B in the RAW.

- AOC-19A: The laboratory analysis for TPH of the soil sample collected at the Joy Air Compressor identified TPH at a concentration in compliance with the NJDEP Criterion. AOC-19A is discussed in Section 5.51.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-19A.

- AOC-19B: The laboratory analysis for TPH of the soil sample collected at the Former Mobile Compressor identified TPH at a concentration in compliance with the NJDEP Criterion. AOC-19B is discussed in Section 5.52.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-19B.

- AOC-19D: The laboratory analysis for TPH and PAHs of soil samples collected at the skid-mounted air compressor identified no compounds above NJDEP Criteria. AOC-19D is discussed in Section 5.53.

  Based on the analytical results of soil sampling, GPUN recommends NFA for AOC-19D.

- AOC-21A: The laboratory analysis for VOCs+10 and BNs+15 of the groundwater sample collected from the South Well identified no compounds above the NJDEP Criteria. AOC-21A is discussed in Section 5.54.

  Based on the analytical results of groundwater sampling, GPUN recommends NFA for AOC-21A.

- AOC-21B: The laboratory analysis for VOCs+10, MTBE and TBA of the groundwater sample from the North Well identified no compounds above the NDJEP Criteria. AOC-21B is discussed in Section 5.55.

Based on the analytical results of groundwater sampling, GPUN recommends NFA for AOC-21B.

- AOC-24: The laboratory analysis of the three groundwater samples for VOCs+10, BN/AEs+25, PCBs and PP Metals collected from wells downgradient of the Upland Confined Disposal Facility identified no compounds above the NJDEP GWQS. AOC-24 is discussed in Section 5.56.

  Based on the analytical results of groundwater sampling, GPUN recommends NFA for AOC-24.

The AOCs requiring remedial action are discussed in this section, and are summarized in Table 10.

1. AOC-1G: Groundwater sampling of a monitoring well installed downgradient to sidegradient of AOC-1G identified MTBE at 1,000 ppb in the Cape May Formation (above the NJDEP GWQS of 70 ppb). Groundwater sampling and analysis conducted by a mobile lab was used to screen samples subsequently analyzed by an off-site laboratory. Groundwater sampling and analysis of the North Well (AOC-21B) confirmed that the Kirkwood Formation has not been impacted by the MTBE detected in MW-1G-1A. Because the groundwater samples were collected using a Geoprobe®, the delineation will be confirmed with the installation, sampling and laboratory analysis of permanent monitoring wells. The MTBE contamination identified in groundwater in AOC-1G will be addressed in the RAW.
2. AOC-14A: The laboratory analysis of soil samples collected at the Former On-site Wastewater Treatment Facility identified chlorobenzene in one sample at 1.6 ppm, above the NJDEP IGW Criteria of 1 ppm. The remediation of chlorobenzene in soil in AOC-14A will be addressed in the RAW.
3. AOC-14C: The laboratory analysis of soil samples collected at the Seepage Pit identified thallium at a concentration of 8.3 ppm in SS-14C-3A, exceeding the NJDEP RDC and NRDC Criteria of 2 ppm. The remediation of thallium in soil in AOC-14C will be addressed in the RAW.
4. AOC-15K: The laboratory analysis of soil samples collected around the Main Transformers identified PCBs in one sample at 0.754 ppm, above the NJDEP RDC of 0.49 ppm. The remediation of PCB-contaminated soil in AOC-15K will be addressed in the RAW.
5. AOC-15M: The laboratory analysis of soil samples collected around the transformer pad near the southeast corner of the Intake Structure identified concentrations of PCBs in one sample at a concentration of 1.600 ppm (above the NJDEP RDC Criteria of 0.49 ppm). PCBs were detected in another sample at a concentration of 2.100 ppm (above the NJDEP RDC and NJDEP NRDC Criteria of 2 ppm). The remediation of PCB-contaminated soil in AOC-15M will be addressed in the RAW.
6. AOC-16C: The laboratory analysis of groundwater west of the Main Transformers identified tetrachloroethene above the NJDEP GWQS. Tetrachloroethene in groundwater is being monitored and remediated under the existing MOA. Continued remediation of the groundwater contamination will be addressed in the RAW.
7. AOC-17G: The laboratory analysis of soil samples collected near the Emergency Diesel Generator Building identified concentrations of total petroleum hydrocarbons (TPH) in compliance with NJDEP Criterion. Based on the analytical results of soil sampling conducted in this AOC, the extent of potentially contaminated soil is limited to the area under the buildings. Residual soil contamination will be addressed in the RAW.
8. AOC-18B: The laboratory analysis of soil samples collected at the former Laydown Area identified antimony at 22.9 ppm, above the NJDEP RDC Criterion of 14 ppm. Zinc was detected at 1,790 ppm in the same sample. The zinc concentration is above the NJDEP

RDC and NRDC Criteria of 1,500 ppm. The analytical results of the soil sampling in AOC–18B identified an area which appears to have been impacted by the historical sand-blasting activities. GPUN will address the limited soil contamination identified in AOC-18B in the RAW.

We have performed our services for this project in accordance with the Agreement between GPUN and URSGWC; no guarantees are either expressed or implied.

Unless we have actual knowledge to the contrary, information obtained from interviews or provided to us by GPUN has been assumed to be correct and complete. We do not assume any liability for information that has been misrepresented to us or for items not visible, accessible, or present at OCNGS at the time of the site visit.

There is no investigation which is thorough enough to preclude the presence of materials on a property which presently, or in the future, may be considered hazardous. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable may, in the future, become subject to different regulatory standards and require remediation. The sampling results may not represent conditions between sample locations.

Where records indicate that prior remedial work has occurred, there is a risk that the work may not have been performed correctly or completely. In these cases, if the regulatory agency has approved the work done, we have assumed that the work was done correctly and completely. Also, unless we have actual knowledge to the contrary, information provided to us by GPUN has been assumed to be correct and complete.

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for the use of GPUN. No third party shall have the right to rely on URSGWC opinions rendered in connection with the services or in this document without URSGWC written consent and the third party's agreement to be bound to the same conditions and limitations as client.

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Table 1 AOCs with Proposals

Table 2 Sampling Summary

Table 3 Summary of Groundwater Elevations and Monitoring Well Data

Table 4 Analytical Methods/QA/QC

Table 5 Analytical Results - Soil

AOC-1 ..... 1
AOC-1A ..... 1
AOC-1D ..... 7
AOC-1E ..... 7
AOC-1F ..... 7
AOC-1G ..... 7
AOC-1I ..... 9
AOC-2 ..... 15
AOC-2A ..... 15
AOC-2D ..... 15
AOC-5 ..... 19
AOC-5A ..... 19
AOC-5B ..... 20
AOC-5C ..... 20
AOC-5G ..... 21
AOC-6 ..... 22
AOC-6A ..... 22
AOC-6B ..... 22
AOC-6C ..... 22
AOC-8 ..... 24
AOC-8B ..... 24
AOC-11 ..... 26
AOC-11A ..... 26
AOC-14 ..... 28
AOC-14A ..... 28
AOC-14B ..... 30
AOC-14C ..... 32
AOC-15 ..... 34
AOC-15A ..... 34
AOC-15B ..... 34
AOC-15C ..... 35
AOC-15D ..... 36
AOC-15E ..... 38
AOC-15F ..... 38
AOC-15G ..... 40
AOC-15H ..... 41
AOC-15I ..... 42
AOC-15J ..... 43
AOC-15K ..... 44

AOC-15L ..... 48
AOC-15M ..... 48
AOC-15N ..... 49
AOC-15O ..... 50
AOC-15P ..... 51
AOC-15Q ..... 51
AOC-16 ..... 53
AOC-16A ..... 53
AOC-16B ..... 55
AOC-16C ..... 57
AOC-16D ..... 61
AOC-16E ..... 63
AOC-16F ..... 65
AOC-17 ..... 67
AOC-17C ..... 67
AOC-17G ..... 67
AOC-17H ..... 69
AOC-18 ..... 70
AOC-18B ..... 70
AOC-19 ..... 71
AOC-19A ..... 71
AOC-19B ..... 71
AOC-19D ..... 71

**Table 6 Analytical Results - Groundwater**

AOC-1A ..... 1
AOC-1G ..... 1
AOC-1I ..... 7
AOC-15K ..... 11
AOC-16D ..... 13
AOC-21A ..... 14
AOC-21B ..... 14
AOC-24 ..... 16

**Table 7 Summary of Exceedances**

**Table 8 Analytical Results/QA/QC – Soil**

**Table 9 Analytical Results/QA/QC – Groundwater**

**Table 10 Summary of Proposals From SI/RI**

# TABLE 1
# AOCs WITH PROPOSALS

| AOC-ID | DESCRIPTION | Soil Sampling | GW Sampling | NFA | Other (see notes) |
|---|---|---|---|---|---|
| 1A | Main Oil Storage Tank (AST) | x | x | | 1 |
| 1B | Emergency Diesel Generator Oil Storage Tank (AST) | | | x | |
| 1C | Emergency Diesel Generator Day Tanks (ASTs) | | | x | |
| 1D | Emergency Diesel Generator Waste Oil Tank (AST) | x | | | |
| 1E | Turbine Dirty Oil Tank (AST) | x | | | 2 |
| 1F | Turbine Lube Oil Main Tank and Purification System (AST) | x | | | |
| 1G | Gasoline and Diesel Fuel ASTs | 3 | x | | 1 |
| 1H | Sodium Hypochlorite Storage Tanks (ASTs) | | | x | |
| 1I | Torus Tank (AST) | x | x | | 1 |
| 1J | Hydrogen Tanks (ASTs) | | | x | |
| 2A | Waste Drop Tank (UST) | x | | | |
| 2B | Former 3,000-Gallon Gasoline UST | | | x | |
| 2C | Former 10,000-Gallon Gasoline and 10,000-Gallon Diesel USTs | | | x | |
| 2D | Former Fuel Oil UST At Eastern Portion of Site (Former Farmhouse) | x | | | 4 |
| 3 | Railroad Siding | | | x | |
| 4A | Fuel Oil Tank Unloading Area | x | x | | 5 |
| 4B | Gasoline/Diesel Fuel ASTs Loading/Unloading Area | | | x | |
| 4C | Sodium Hypochlorite Tanks Unloading Area | | | x | |
| 4D | Torus Tank Unloading Area | x | x | | 6 |
| 4E | Barge Unloading Facility | | | x | |
| 5A | Underground Piping from Main Oil Storage Tank to the Emergency Diesel Generator Oil Storage Tank Via the Auxiliary Boiler House | x | | | |
| 5B | Underground Piping from Turbine Lube Oil Main Tank to the Turbine Dirty Oil Tank | x | | | |
| 5C | Underground Piping from Torus Tank to Reactor Building | x | | | |
| 5D | Gasoline and Diesel Fuel ASTs - Above Ground Piping | | | x | |
| 5E | Sodium Hypochlorite System - Above Ground Piping | | | x | |
| 5F | Acid and Caustic Underground Piping | | | x | |
| 5G | Fuel Oil Pumping Station | x | | | |
| 5H | Emergency Diesel Generator Oil Storage Tank Room Sump | | | | 2 |
| 5I | Miscellaneous Sumps | | | x | |
| 6A | Hazardous and Non-Hazardous Waste Storage Area | x | | | |
| 6B | Former Storage Area South of Existing Storage Area | x | | | |
| 6C | Former Storage Area Southwest of Level D Storage Area | x | | | |
| 7A | Cardboard Compactor | | | x | |
| 7B | Scrap Metal Dumpster | x | | | |
| 7B | Trash Rack Debris Dumpster | | | x | |
| 7C | Trash Dumpster | | | x | |
| 7D | Corrugated Cardboard Compactor | | | x | |
| 8A | Chemical Storage Cabinet at Intake Canal | 7 | | | |
| 8B | Chemical Storage Cabinet West of New RadWaste Building | x | | | |
| 9 | Floor Drains | | | x | |
| 10 | Process Area Sinks | | | x | |
| 11A | Trench Located Adjacent to Wooded Area, North of Main Gate Entrance | x | | | |
| 11B | Swale Leading from North Side of OCNGS to Water Mound at Northern Perimeter of Site | | | x | |
| 11C | Storm Drainage Area Located South of the Main Gate Entrance | | | x | |
| 12 | Storm Sewer Collection Systems | | | x | |
| 13A | Intake/Discharge Canal | | | x | |
| 13B | Water Mound | | | x | |

# TABLE 1
# AOCs WITH PROPOSALS

| AOC-ID | DESCRIPTION | Soil Sampling | GW Sampling | NFA | Other (see notes) |
|---|---|---|---|---|---|
| 14A | Former On-Site Wastewater Treatment Facility | x | | | |
| 14B | Septic System - Former Farmhouse | x | | | |
| 14C | Seepage Pit | x | | | |
| 15A | Transformer - Northwest Corner of Low Level RadWaste Storage Facility | x | | | |
| 15B | Transformer - South Side of Low Level RadWaste Facility | x | | | |
| 15C | Transformer - Southwest Corner of Material Warehouse | x | | | |
| 15D | Transformer - South Side of Level D Storage Area | x | | | |
| 15E | Transformer - Southwest Corner of New RadWaste Building | x | | | |
| 15F | Transformer - Northeast of Reactor Building | x | | | |
| 15G | Transformer - Southwest Corner of Administration Building | x | | | |
| 15H | Transformer - Southeast Corner of Site Emergency Building | x | | | |
| 15I | Transformer - East End of Plant Engineering Building (Aux. Office Bldg.) | x | | | |
| 15J | Transformer - West Side of Pre-Treatment Building | x | | | |
| 15K | Transformer - West Side of Turbine Building | x | x | | 1 |
| 15L | Transformer - West Side of Turbine Building, South of Chlorination Facility | x | x | | |
| 15M | Transformer - Southeast Corner of Intake Structure | x | | | |
| 15N | Transformer - Northeast Corner of Fire Water Storage Tank | x | | | |
| 15O | Transformer - Southwest Corner of Trailer 300 Complex | x | | | |
| 15P | Transformer - East End of Breathing Air Compressor Building | x | | | |
| 15Q | Transformer - West of Low Level RadWaste Storage Facility | x | | | |
| 16A | Hazardous Waste Collection Station | x | | | |
| 16B | Former Hazardous Waste Collection Shed | x | | | |
| 16C | Former Drum Storage Area at Storage Building | x | | | |
| 16D | Historical Storage of Chromate Solution near New RadWaste Building | x | x | | |
| 16E | Historical Storage of Chromate Solution near Drywell Processing Center | x | x | | |
| 16F | Historical Storage of Chromate Solution near Old RadWaste Building | x | | | |
| 17A | Area of Discharge/Spill - 12-25-79 | | | x | |
| 17B | Area of Discharge/Spill - 5-2-80 | | | x | |
| 17C | Area of Discharge/Spill - 10-30-80 (NJDEP Case No. 80-10-31-6) | x | | | |
| 17D | Area of Discharge/Spill - 3-24-83 | | | x | |
| 17E | Area of Discharge/Spill - 04-12-85 | | | x | |
| 17F | Area of Discharge/Spill - 08-01-86 | | | x | |
| 17G | Area of Discharge/Spill - 10-24-86 (NJDEP Case Nos. 86-10-24-IOC/93-06-28-1317-29) | x | | | 8 |
| 17H | Area of Discharge/Spill - 08-16-87 | x | | | |
| 17I | Area of Discharge/Spill - 9-12-87 | | | x | |
| 17J | Area of Discharge/Spill - 10-1-88 | | | x | |
| 17K | Area of Discharge/Spill - 2-2-89 | | | x | |
| 17L | Area of Discharge/Spill - 3-29-89 | | | x | |
| 17M | Area of Discharge/Spill - 6-25-89 | | | | 9 |
| 17N | Area of Discharge/Spill - 7-11-89 | | | | 9 |
| 17O | Area of Discharge/Spill - 7-12-89 | | | x | |
| 17P | Area of Discharge/Spill - 7-18-89 | | | x | |
| 17Q | Area of Discharge/Spill - 4-9-90 | | | x | |
| 17R | Area of Discharge/Spill - 7-21-91 (NJDEP File No. L6-910729-02) | | | x | |
| 17S | Area of Discharge/Spill - 2-17-92 (NJDEP Case No. 92-02-17-0402-29) | | | x | |
| 17T | Area of Discharge/Spill - 4-15-93 (NJDEP Case No. 93-4-15-0916-20) | | | x | |
| 17U | Area of Discharge/Spill - 11-30-93 (NJDEP Case No. 93-11-30-1605-00) | | | x | |
| 17V | Area of Discharge/Spill - 7-6-95 (NJDEP Case No. 95-7-6-1052-00) | | | x | |
| 17W | Area of Discharge/Spill - 6-29-99 (NJDEP Case No. 99-06-29-1532-38) | | | x | |

# TABLE 1
# AOCs WITH PROPOSALS

| AOC-ID | DESCRIPTION | Soil Sampling | GW Sampling | NFA | Other (see notes) |
|---|---|---|---|---|---|
| 18A | Undeveloped Areas North, East and South of OCNGS | | | x | |
| 18B | Former Laydown Area at Northeast Portion of OCNGS | x | | | |
| 18C | Undeveloped Area East of U.S. Route 9 | | | x | |
| 19A | Joy Air Compressor | x | | | |
| 19B | Former Mobile Compressor | x | | | |
| 19C | Air Compressor at New RadWaste Building | | | x | |
| 19D | Skid-Mounted Air Compressor | x | | | |
| 20A | DSN 001 - Main Condenser Non-Contact Cooling Water | | | x | |
| 20B | DSN 002 - Heat Exchanger Non-Contact Cooling Water | | | x | |
| 20C | DSN 004 - Stormwater Runoff, Non-Contact Cooling Water from Reactor Building and Emergency Service Water Heat Exchangers and Discharge from 1-5 Sump | | | x | |
| 21A | South Production Well | | 3 | | |
| 21B | North Production Well | | 3 | | |
| 22 | Boiler Rooms | | | x | |
| 23A | Materials Warehouse In-Stock Drum Storage | | | x | |
| 23B | Turbine Building – Hazardous Waste | | | x | |
| 23C | New Maintenance Building (Electrical Maintenance) | | | x | |
| 23D | Package Treatment Plant – Environmental Affairs | | | x | |
| 23E | Instrument & Controls – Old Machine Shop | | | x | |
| 23F | Calibration Laboratory | | | x | |
| 23G | Tool Room | | | x | |
| 23H | Tool Room (Hot) | | | x | |
| 23I | Building 4 – Mechanical Maintenance | | | x | |
| 23J | Reactor Building - Operations | | | x | |
| 23K | Turbine Building – Operations | | | x | |
| 23L | Radiac Trailer - Radcon Field Operations | | | x | |
| 23M | Trailer 20 - Radcon Field Operations | | | x | |
| 23N | Old RadWaste Annex | | | x | |
| 23O | Site Emergency Building | | | x | |
| 23P | Utility Worker Paint Shed | | | x | |
| 23Q | Building 3 – Station Services | | | x | |
| 23R | Main Office Building Hot Lab | | | x | |
| 23S | New RadWaste Building Crane Bay | | | x | |
| 23T | RadWaste Compactor Room/Old RadWaste Control Room | | | x | |
| 23U | Plant Engineering Building West Laboratory | | | x | |
| 23V | Plant Engineering Building – Clean Lab Trailer | | | x | |
| 23W | Pretreatment Laboratory | | | x | |
| 23X | Carpenter's Shop/Pipe Fitter's Shop | | | x | |
| 23Y | Electrical Shop | | | x | |
| 23Z | Former Insulating Shop | | | x | |
| 24 | Upland Confined Disposal Facility | | x | | 1 |
| 25 | Investigation of Potential Release of Ethylene Glycol | | | x | |

**Notes:**
1 – Monitoring well installation
2 – Photodocumentation
3 – Not proposed in PAR; conducted in SI/RI
4 - UST closure by removal
5 – Addressed by sampling of AOC-1A
6 – Addressed by sampling AOC-1I
7 – Addressed by sampling of AOC-15M
8 – Proposal to continue groundwater monitoring in accordance with Memorandum of Agreement.
9 – Addressed by sampling of AOC-15K

**Table 3**
**Ground Water Elevations: January 3, 2000**
**GPU Nuclear - Oyster Creek Nuclear Generating Station**

| Well Number | | Groundwater Formation | Year Installed | Northing NAD 27 | Easting NAD 27 | Screen Length | Casing + Screen Length | Reference Elevation | Distance to Water | Distance to LNAPL | LNAPL Thickness | Corrected Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Fuel Release and Tetrachloroethene Wells | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| OW- | 1 | Cape May | Dec-88 | 357205.6 | 2129143.358 | 9 | 19 | 23.21 | 15.74 | | 0 | 7.47 |
| OW- | 4 | Cape May | Dec-88 | 357220 | 2129163 | 9 | 19 | 23.19 | 13.24 | | 0 | 9.95 |
| OW- | 5 | Cape May | Dec-88 | 357216.9514 | 129129.1967 | 9 | 19 | 22.9 | 16.65 | | 0 | 6.25 |
| | | | | | | | | | | | | |
| W- | 1 | Cohansey | Nov-83 | 357201.7 | 2128727 | 10 | 50 | 22.49 | 19.1 | | 0 | 3.39 |
| W- | 2 | Cohansey | Nov-83 | 357123.5131 | 2129135.825 | 10 | 55 | 22.72 | 16.4 | | 0 | 6.32 |
| W- | 3 | Cape May | Nov-83 | 357345.2 | 2129084 | 10 | 24 | 20.55 | 16.62 | | 0 | 3.93 |
| W- | 4 | Cohansey | Nov-83 | 357348.3 | 2129084 | 10 | 52 | 20.49 | 17.45 | | 0 | 3.04 |
| W- | 5 | Cape May | Nov-83 | 357665.0077 | 2128986.52 | 10 | 20.5 | 23.3 | 14.3 | | 0 | 9.00 |
| W- | 6 | Cohansey | Nov-83 | 357675.089 | 2128983.911 | 10 | 52.5 | 23.85 | 21.2 | | 0 | 2.65 |
| W- | 7 | Cape May | Nov-83 | 357194.8868 | 2129287.502 | 10 | 20 | 23.36 | 15.7 | | 0 | 7.66 |
| W- | 9 | Cape May | Nov-83 | 357462.6 | 2129481 | 10 | 20 | 22.7 | 16.6 | | 0 | 6.10 |
| W- | 10 | Cohansey | Nov-83 | 357459.6 | 2129478 | 10 | 57 | 23.18 | 18.3 | | 0 | 4.88 |
| W- | 12 | Cape May | Nov-83 | 357838.3 | 2129342 | 10 | 20 | 24.17 | 16.55 | | 0 | 7.62 |
| W- | 13 | Cohansey | Nov-83 | 357841.4 | 2129342 | 10 | 50 | 24.16 | 20.2 | | 0 | 3.96 |
| W- | 14 | Cohansey | Nov-83 | 357848.5532 | 2129602.452 | 10 | 53 | 23.32 | 19.05 | | 0 | 4.27 |
| W- | 15 | Cape May | Nov-83 | 357851.5532 | 2129601.452 | 10 | 20 | 23.28 | 13.95 | | 0 | 9.33 |
| W- | 16 | Cohansey | Nov-83 | 358140.8 | 2129518 | 10 | 20 | 23.08 | 12.7 | | 0 | 10.38 |
| W- | 17 | Kirkwood | Nov-83 | 358196.012 | 2130260.03 | 20 | 150 | 20.08 | 9 | | 0 | 11.08 |
| W- | 18 | Cape May | Jan-88 | 357145.2012 | 2129205.068 | 10 | 20 | 23.43 | 17.26 | 15.98 | 1.28 | 7.32 |
| W- | 19 | Cape May | Jan-88 | 357230.8907 | 2129216.679 | 10 | 20 | 23.32 | 16.13 | | 0 | 7.19 |
| W- | 20 | Cape May | Dec-87 | 357093.9116 | 2129112.921 | 10 | 20 | 23.24 | 18.6 | | 0 | 4.64 |
| W- | 21 | Cape May | Jan-88 | 357165.2829 | 2129091.242 | 10 | 20 | 23.86 | 17.8 | | 0 | 6.06 |
| W- | 22 | Cape May | Jan-88 | 357177.2595 | 2129210.423 | 9 | 38 | 23.39 | 20.05 | | 0 | 3.34 |
| W- | 23 | Cape May | Jan-88 | 357221.8776 | 2129118.019 | 10 | 20 | 22.99 | not measured - used for product recovery | | | |
| W- | 24 | Cape May | Dec-88 | 357278.6231 | 2129235.065 | 10 | 18.5 | 23.76 | 15.6 | | 0 | 8.16 |

**Table 3**
**Ground Water Elevations: January 3, 2000**
**GPU Nuclear - Oyster Creek Nuclear Generating Station**

| Well Number | Groundwater Formation | Year Installed | Northing NAD 27 | Easting NAD 27 | Screen Length | Casing + Screen Length | Reference Elevation | Distance to Water | Distance to LNAPL | LNAPL Thickness | Corrected Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|
| W-25 | Cape May | Dec-88 | 357120.2845 | 2129258.143 | 10 | 19 | 23.39 | 16.2 | | 0 | 7.19 |
| W-26 | Cape May | Dec-88 | 357172.0891 | 2129213.068 | 10 | 19 | 23.11 | 17.12 | 15.63 | 1.49 | 7.33 |
| W-27 | Cape May | Dec-88 | 357207.2093 | 2129210.423 | 10 | 19 | 23.17 | 15.86 | 15.84 | 0.02 | 7.33 |
| W-28 | Cape May | Jul-89 | 357145.7599 | 2129155.031 | 10 | 19 | 23.2 | not measured - used for product recovery | | | |
| W-29 | Cape May | Jul-89 | 357172.6482 | 2129150.194 | 10 | 19.5 | 23.22 | not measured - used for product recovery | | | |
| W-30 | Cape May | Jul-89 | 357216.9814 | 2129083.648 | 10 | 19 | 24.4 | 17.9 | | 0 | 6.50 |
| W-31 | Cape May | Jul-89 | 357228.1506 | 2129059.745 | 10 | 19 | 23.94 | 18.56 | | 0 | 5.38 |
| W-32 | Cape May | Jul-89 | 357129.347 | 2129109.678 | 10 | 19 | 23.5 | 17.5 | | 0 | 6.00 |
| W-33 | Cape May | Jul-89 | 357187.415 | 2129073.905 | 10 | 19 | 24.23 | 18.4 | | 0 | 5.83 |
| W-34 | Cape May | Nov-91 | 357353.4371 | 2129229.804 | 10 | 40 | 23.13 | 19 | | 0 | 4.13 |
| | | | | | | | | | | | |
| UST Removal Wells | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-1 | Cape May | unknown | 355625.8 | 2128630 | 15 | 20 | 23.44 | 15.82 | | 0 | 7.62 |
| MW-2 | Cape May | unknown | 356532.2 | 2125386 | 15 | 19 | 28.7 | 4.58 | | 0 | 24.12 |
| MW-3 | Cape May | unknown | 356506.9 | 2125390 | 12 | 15 | 29.53 | 5.36 | | 0 | 24.17 |
| MW-4 | Cape May | unknown | 356500.7 | 2125350 | 12 | 15 | 29.34 | 5.26 | | 0 | 24.08 |
| | | | | | | | | | | | |
| 2000 RIR Well Network | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-24-1A | Cape May | 1999 | 357403 | 2134198 | | | 14.39 | 10.8 | | 0 | 3.59 |
| MW-24-2A | Cape May | 1999 | 357020.6 | 2134060 | | | 14.06 | 11.35 | | 0 | 2.71 |
| MW-24-3A | Cape May | 1999 | 357009.4 | 2133557 | | | 14.27 | 12.1 | | 0 | 2.17 |
| MW-1L-1A | Cape May | 1999 | 357765.1474 | 2129004.742 | | | 23.79 | 13.78 | | 0 | 10.01 |
| MW-1L-2A | Cape May | 1999 | 357723.9006 | 2129077.388 | | | 23.63 | 14.23 | | 0 | 9.40 |
| MW-1A-1A | Cape May | 1999 | 357581.7756 | 2129582.64 | | | 22.89 | 15.65 | | 0 | 7.24 |
| MW-1A-2A | Cape May | 1999 | 357524.1588 | 2129625.37 | | | 24.35 | 17.53 | | 0 | 6.82 |
| MW-1G-1A | Cape May | 1999 | 358685.6903 | 2129914.172 | | | 22.89 | 13.4 | | 0 | 9.49 |

**Table 3**
**Ground Water Elevations: January 3, 2000**
**GPU Nuclear - Oyster Creek Nuclear Generating Station**

| Well Number | | Groundwater Formation | Year Installed | Northing NAD 27 | Easting NAD 27 | Screen Length | Casing + Screen Length | Reference Elevation | Distance to Water | Distance to LNAPL | LNAPL Thickness | Corrected Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW- | 15K-1A | Cape May | 1999 | 357444.4651 | 2129047.847 | | | 14.96 | 10.07 | | 0 | 4.89 |
| | | | | | | | | | | | | |
| Supplemental Well Network | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| W- | 1A | Cohansey | unknown | 358484 | 2129264 | | 50 | 22.01 | 21.1 | | 0 | 0.91 |
| W- | 1B | Cape May | unknown | 358486 | 2129271 | | 20 | 22.17 | 11.9 | | 0 | 10.27 |
| W- | 2A | Cohansey | unknown | 358277 | 2128934 | | 50 | 19.22 | 18.6 | | 0 | 0.62 |
| W- | 2B | Cape May | unknown | 358282 | 2128934 | | 20 | 19.54 | 8.6 | | 0 | 10.94 |
| W- | 3A | Cohansey | unknown | 358243 | 2130249 | | 50 | 19.1 | 16.4 | | 0 | 2.70 |
| W- | 3B | Cape May | unknown | 358245 | 2130241 | | 20 | 20.1 | 8.1 | | 0 | 12.00 |
| W- | 4A | Cohansey | unknown | 357087 | 2129974 | | 50 | 17.85 | 13.25 | | 0 | 4.60 |
| W- | 4B | Cape May | unknown | 357090 | 2129975 | | 20 | 18.02 | 9.8 | | 0 | 8.22 |
| LW- | 1 | Cape May | unknown | 357576.9 | 2129656 | | 21.16 | 22.25 | dry | | 0 | NE |
| LW- | 2 | Cohansey | unknown | 357725 | 2130153 | | 47.82 | 22.63 | 18.5 | | 0 | 4.13 |
| LW- | 3 | Cape May | unknown | 357735 | 2130151 | | 21.31 | 22.32 | 10.6 | | 0 | 11.72 |
| | | | | | | | | | | | | |
| Watermound Well Network | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 1- | A | | pre-1981 | | | | 37.2 | 8.6 | 9.25 | | 0 | -0.65 |
| 1- | B | | pre-1981 | | | | 25.7 | 10.3 | 9.15 | | 0 | 1.15 |
| 1- | C | | pre-1981 | | | | 65.3 | 13.9 | 12.7 | | 0 | 1.20 |
| 2- | A | | pre-1981 | | | | 41 | 10.7 | 11 | | 0 | -0.30 |
| 2- | B | | pre-1981 | | | | 18 | 10.6 | 9.7 | | 0 | 0.90 |
| 2- | C | | pre-1981 | | | | 82 | 15.2 | 4.1 | | 0 | 11.10 |
| 2- | D | | pre-1981 | | | | 44 | 15.3 | 14.15 | | 0 | 1.15 |
| 3- | A | | pre-1981 | | | | 36 | 12.2 | 12.3 | | 0 | -0.10 |
| 3- | B | | pre-1981 | | | | 34.4 | 10.8 | 10 | | 0 | 0.80 |
| 3- | C | | pre-1981 | | | | 64.2 | 13.9 | 1.9 | | 0 | 12.00 |

# TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-1A/4D - Main Oil Storage Tank and Unloading Area | Soil | SS-1A-1A | 09/02/1999 | 1015 | Hand Auger | TPH, (VOCs+10[1]) | 0.5 to 1.0 | -- | Duplicate sample (DUP 1010) taken |
| | Soil | SS-1A-1B | 09/02/1999 | 1045 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1A-2A | 09/01/1999 | 1415 | Geoprobe | TPH, (VOCs+10[1]) | 0.5 to 1.0 | -- | |
| | Soil | SS-1A-2B | 09/01/1999 | 1425 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | Stained black, exhibits TPH odor |
| | Soil | SS-1A-3A | 09/01/1999 | 1335 | Geoprobe | TPH, (VOCs+10[1]) | 0.5 to 1.0 | -- | |
| | Soil | SS-1A-3B | 09/01/1999 | 1340 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1A-4A | 09/02/1999 | 1100 | Hand Auger | VOCs+10[2] | 0.5 to 1.0 | -- | |
| | Soil | SS-1A-4B | 09/02/1999 | 1115 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1A-5A | 09/01/1999 | 1430 | Hand Auger | TPH, (VOCs+10[1]) | 0.5 to 1.0 | -- | |
| | Soil | SS-1A-5B | 09/01/1999 | 1440 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1A-6A | 09/01/1999 | 1335 | Hand Auger | TPH, (VOCs+10[1]) | 0.5 to 1.0 | -- | |
| | Soil | SS-1A-6B | 09/01/1999 | 1345 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | MW-1A-1A | 12/03/1999 | 1020 | HSA | TPH, VOCs+10, BN/AEs+25 | 17.5 to 18.0 | 22.0 | Collected during installation of MW-1A-1A |
| | Soil | MW-1A-2A | 12/09/1999 | 940 | Geoprobe | TPH, VOCs+10, BN/AEs+26 | 15.5 to 16.0 | 19.0 | Collected during installation of MW-1A-2A |
| | Groundwater | GW-1A-1A | 12/21/1999 | 1135 | Groundwater | VOCs+10, BNs+15 | Cape May Formation | NA | Identified on well permit as MW-25-1A |
| | Groundwater | GW-1A-2A | 12/21/1999 | 1540 | Groundwater | VOCs+10, BNs+15 | Cape May Formation | NA | Identified on well permit as MW-25-2A |
| AOC-1D - Emergency Diesel Generator Waste Oil Tank | Soil | SS-1D-1A | 12/03/1999 | 1415 | Hand Auger | TPH, VOCs+10[1] | 0 to 2.0[3] | 2.0 | |
| AOC-1E - Turbine Dirty Oil Tank | Soil | SS-1E-1A | 12/03/1999 | 1535 | Hand Tool | TPH, BNs+15, (PAHs[4]) | 0 to 0.5 | 0.5 | Petroleum staining observed on gravel. |
| AOC-1F - Turbine Lube Oil Main Tank, Purification System | Soil | SS-1F-1A | 11/16/1999 | 1615 | Hand Auger | TPH, PAHs[4] | 0 to 0.5 | 0.5 | |
| AOC-1G - Gasoline and Diesel Fuel ASTs | Groundwater | GW-1G-1A | 12/21/1999 | 1410 | Groundwater | VOCs+10, BNs+15, MTBE, TBA | Cape May Formation | NA | Identified on well permit as MW-28-1A |
| Groundwater Sampling with Geoprobe | Groundwater | GW-1G-1A | 01/05/2000 | 0825 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-2A | 01/05/2000 | 0912 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-3A | 01/05/2000 | 0835 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-4A | 01/05/2000 | 1005 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-5A | 01/05/2000 | 0922 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-6A | 01/05/2000 | 1120 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-7A | 01/05/2000 | 1055 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-8A | 01/05/2000 | 1011 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-9A | 01/05/2000 | 1052 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-10A | 01/05/2000 | 1146 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-11A | 01/05/2000 | 1335 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-12A | 01/05/2000 | 1326 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-16A | 01/05/2000 | 1416 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-22A | 01/05/2000 | 1535 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-23A | 01/05/2000 | 1425 | Geoprobe | MTBE | Cape May Formation | NA | Sample was analyzed at a mobile on-site laboratory. |
| | Groundwater | GW-1G-1A | 01/05/2000 | 0825 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-2A | 01/05/2000 | 0912 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-3A | 01/05/2000 | 0835 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-4A | 01/05/2000 | 1005 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-5A | 01/05/2000 | 0922 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-6A | 01/05/2000 | 1120 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-7A | 01/05/2000 | 1055 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-8A | 01/05/2000 | 1011 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-9A | 01/05/2000 | 1052 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |

# TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-1G - Gasoline and Diesel Fuel ASTs | Groundwater | GW-1G-10A | 01/05/2000 | 1146 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-11A | 01/05/2000 | 1335 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| Groundwater Sampling with Geoprobe | Groundwater | GW-1G-12A | 01/05/2000 | 1326 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-16A | 01/05/2000 | 1416 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-22A | 01/05/2000 | 1535 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Groundwater | GW-1G-23A | 01/05/2000 | 1425 | Geoprobe | VOCs+10, MTBE, TBA | Cape May Formation | NA | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-1A | 01/05/2000 | 1531 | Geoprobe | MTBE | 1.5-2.0 | -- | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-1B | 01/05/2000 | 1531 | Geoprobe | MTBE | 11.0 to 11.5 | 12.0 | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-2A | 01/05/2000 | 1619 | Geoprobe | MTBE | 1.5-2.0 | 2.0 | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-3A | 01/05/2000 | 1637 | Geoprobe | MTBE | 1.5-2.0 | -- | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-3B | 01/05/2000 | 1630 | Geoprobe | MTBE | 7.0-7.5 | 12.0 | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-4A | 01/05/2000 | 1700 | Geoprobe | MTBE | 1.5-2.0 | 2.0 | Sample was analyzed at a mobile on-site laboratory. |
| | Soil | SS-1G-1A | 01/05/2000 | 1531 | Geoprobe | VOCs+10, MTBE, TBA | 1.5-2.0 | -- | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-1B | 01/05/2000 | 1531 | Geoprobe | VOCs+10, MTBE, TBA | 11.0 to 11.5 | 12.0 | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-2A | 01/05/2000 | 1619 | Geoprobe | VOCs+10, MTBE, TBA | 1.5-2.0 | 2.0 | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-3A | 01/05/2000 | 1637 | Geoprobe | VOCs+10, MTBE, TBA | 1.5-2.0 | -- | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-3B | 01/05/2000 | 1630 | Geoprobe | VOCs+10, MTBE, TBA | 7.0-7.5 | 12.0 | Sample was analyzed at off-site laboratory. |
| | Soil | SS-1G-4A | 01/05/2000 | 1700 | Geoprobe | VOCs+10, MTBE, TBA | 1.5-2.0 | 2.0 | Sample was analyzed at off-site laboratory. |
| AOC-1I/4D - Torus Tank and | Soil | SS-1I-1A | 09/01/1999 | 1038 | Hand Auger | Total and Hexavalent Chromium | 0.5 to 1.0 | -- | |
| Unloading Area | Soil | SS-1I-1B | 09/01/1999 | 1055 | Hand Auger | Total and Hexavalent Chromium | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1I-2A | 09/01/1999 | 1115 | Hand Auger | Total and Hexavalent Chromium | 0.5 to 1.0 | -- | |
| | Soil | SS-1I-2B | 09/01/1999 | 1125 | Hand Auger | Total and Hexavalent Chromium | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1I-3A | 09/01/1999 | 1025 | Geoprobe | Total and Hexavalent Chromium | 0.5 to 1.0 | -- | |
| | Soil | SS-1I-3B | 09/01/1999 | 1032 | Geoprobe | Total and Hexavalent Chromium | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-1I-4A | 09/01/1999 | 1115 | Geoprobe | Total and Hexavalent Chromium | 0.5 to 1.0 | -- | |
| | Soil | SS-1I-4B | 09/01/1999 | 1125 | Geoprobe | Total and Hexavalent Chromium | 3.5 to 4.0 | 4.0 | |
| | Groundwater | GW-1I-W5 | 09/03/1999 | 1150 | Groundwater | Total and Hexavalent Chromium | Cape May Formation | NA | |
| | Groundwater | GW-1I-W6 | 09/03/1999 | 1115 | Groundwater | Total and Hexavalent Chromium | Cohansey Formation | NA | Duplicate sample (DUPW2) taken |
| | Groundwater | GW-1I-1A | 12/22/1999 | 1235 | Groundwater | Total and Hexavalent Chromium | Cape May Formation | NA | Identified on well permit as MW-26-1A |
| | Groundwater | GW-1I-2A | 12/22/1999 | 1415 | Groundwater | Total and Hexavalent Chromium | Cape May Formation | NA | Identified on the well permit as MW-26-2A. Duplicate sample (GWDUP1/14:15) taken |
| AOC-2A - Waste Drop Tank | Soil | SS-2A-1A | 12/08/1999 | 915 | Geoprobe | TPH, VOCs+10, BN/AEs+25 | 7.5 to 8.0 | 8.0 | |
| | Soil | SS-2A-2A | 12/08/1999 | 930 | Geoprobe | TPH, VOCs+10, BN/AEs+25 | 7.5 to 8.0 | 8.0 | |
| | Soil | SS-2A-3A | 12/08/1999 | 1020 | Geoprobe | TPH, VOCs+10, BN/AEs+25 | 6.0 to 6.5 | 8.0 | Slight odor @ 6 ft bgs, sample biased towards odor |
| | Soil | SS-2A-4A | -- | -- | -- | -- | -- | -- | Proposed, not sampled due to concerns regarding underground utilities. |
| AOC-2D - Former Fuel Oil UST at Former | Soil | SS-2D-1A | 11/17/1999 | 1533 | Geoprobe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | |
| Farmhouse | Soil | SS-2D-2A | 11/17/1999 | 1539 | Geoprobe | TPH, (VOCs+10[1]) | 5.0 to 5.5 | 11.0 | |
| | Soil | SS-2D-3A | 11/17/1999 | 1602 | Geoprobe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | |
| | Soil | SS-2D-4A | 11/17/1999 | 1615 | Geoprobe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | |
| | Soil | PX-1 | 12/21/1999 | 850 | Backhoe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 6.0 | |
| | Soil | PX-2 | 12/21/1999 | 855 | Backhoe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 6.0 | |
| AOC-5A - Underground Piping from Main Oil | Soil | SS-5A-1A | 11/30/1999 | 1035 | Hand Auger | TPH, (VOCs+10[1]) | 0 to 2.0[3] | 2.0 | Staining on gravel. Obstruction at 2 ft bgs. |
| Storage Tank to Emergency Diesel | Soil | SS-5A-2A | 11/22/1999 | 1520 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| Generator Building | Soil | SS-5A-3A | 11/22/1999 | 1450 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-4A | 11/30/1999 | 1100 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-5A | 11/22/1999 | 1015 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-6A | 11/22/1999 | 1045 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-7A | 11/22/1999 | 1115 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-8A | 11/22/1999 | 1155 | Geoprobe | TPH, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | Sample collected through elevated landscaped area. |
| | Soil | SS-5A-9A | 11/22/1999 | 1310 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-10A | 11/22/1999 | 1340 | Geoprobe | (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | | | 12/08/1999 | 1400 | Geoprobe | TPH | 3.5 to 4.0 | 4.0 | TPH sample recollected due to bottle loss. |

## TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-5A - Underground Piping from Main Oil Storage Tank to Emergency Diesel Generator Building (Continued) | Soil | SS-5A-11A | 11/18/1999 | 1630 | Hand Auger | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-12A | 11/22/1999 | 1405 | Geoprobe | TPH, (VOCs+10[1]) | 2.5 to 3.0 | 4.0 | |
| | Soil | SS-5A-13A | 11/18/1999 | 1036 | Geoprobe | TPH, (VOCs+10[1]) | 2.5 to 3.0 | 20 | Continued boring for AOC-17G, SS-17G-7A |
| | Soil | SS-5A-14A | 11/22/1999 | 1440 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-15A | 11/22/1999 | 1500 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| | Soil | SS-5A-16A | 11/22/1999 | 1515 | Geoprobe | TPH, (VOCs+10[1]) | 3.5 to 4.0 | 4.0 | |
| AOC-5B - Underground Piping from Turbine Lube Oil Main Tank to Turbine Dirty Oil Tank | Soil | SS-5B-1A | 12/08/1999 | 1045 | Geoprobe | TPH, (PAHs[4]) | 5.5 to 6.0 | 6.0 | |
| | Soil | SS-5B-2A | 12/08/1999 | 1125 | Geoprobe | TPH, (PAHs[4]) | 3.5 to 4.0 | 6.0 | Staining observed @ 3.5 ft bgs |
| AOC-5C - Underground Piping from Torus Tank to Reactor Building | Soil | SS-5C-1A | 11/17/1999 | 1015 | Geoprobe | Total and Hexavalent Chromium | 4.5 to 5.0 | 8.0 | Duplicate sample (SS-5C-1AD) taken |
| | Soil | SS-5C-2A | 11/17/1999 | 950 | Geoprobe | Total and Hexavalent Chromium | 4.5 to 5.0 | 8.0 | |
| | Soil | SS-5C-3A | -- | -- | -- | -- | -- | -- | Proposed locations under buildings, not sampled. |
| | Soil | SS-5C-4A | -- | -- | -- | -- | -- | -- | Proposed locations under buildings, not sampled. |
| | Soil | SS-5C-5A | 11/17/1999 | 1040 | Geoprobe | Total and Hexavalent Chromium | 4.5 to 5.0 | 7.0 | |
| | Soil | SS-5C-6A | 11/17/1999 | 1102 | Geoprobe | Total and Hexavalent Chromium | 4.5 to 5.0 | 8.0 | |
| | Soil | SS-5C-7A | 11/23/1999 | 1025 | Hand Auger | Total and Hexavalent Chromium | 4.5 to 5.0 | 5.0 | Boring attempted with Geoprobe, repeated with Hand Auger |
| AOC-5G - Fuel Oil Pumping Station | Soil | SS-5G-1A | 11/30/1999 | 1015 | Hand Auger | TPH, VOCs+10 | 0 to 2.0[3] | 2.0 | Staining on asphalt |
| AOC-6A - Hazardous and Non-Hazardous Waste Storage Area | Soil | SS-6A-1A | 11/15/1999 | 1455 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5] | 0 to 2.0[3] | 2.0 | |
| AOC-6B - Former Drum Storage Area - South of AOC-6A | Soil | SS-6B-1A | 11/15/1999 | 1438 | Hand Auger | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-6B-2A | 11/15/1999 | 1510 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5], iron | 0 to 2.0[3] | 2.0 | |
| AOC-6C - Former Drum Storage Area - Southwest of Level D Storage Area | Soil | SS-6C-1A | 11/15/1999 | 1625 | Hand Auger | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-6C-2A | 11/15/1999 | 1610 | Hand Auger | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | 2.0 | |
| AOC-7B - Scrap Metal Dumpster | Soil | SS-7B-1A[6] | -- | -- | -- | -- | -- | -- | Not sampled due to underground structures); SS-15M-3A and -4A |
| AOC-8A - Chemical Storage Cabinet at Intake Canal | Soil | SS-8A-1A[6] | -- | -- | -- | -- | -- | -- | Not sampled due to underground structures); SS-15M-3A and -4A |
| | Soil | SS-8A-2A[6] | -- | -- | -- | -- | -- | -- | Not sampled due to underground structures; SS-15M-3A and -4A |
| AOC-8B - Chemical Storage Cabinets West of New RadWaste Building | Soil | SS-8B-1A | 12/03/1999 | 1520 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5] | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-8B-2A | 12/03/1999 | 1455 | Hand Auger | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | 2.0 | |
| AOC-11A - Trench | Soil | SS-11A-1A | 11/22/1999 | 1128 | Hand Auger | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-11A-2A | 11/22/1999 | 1150 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5] | 0 to 2.0[3] | 2.0 | |
| AOC-14A - Former On-Site Wastewater Treatment Facility | Soil | SS-14A-1A | 11/29/1999 | 1515 | Geoprobe | VOCs+10, BN/AEs+25, PCBs, Metals | 15.0 to 15.5 | 16.0 | |
| | Soil | SS-14A-2A | 11/29/1999 | 1620 | Geoprobe | VOCs+10, BN/AEs+25, PCBs, Metals | 15.5 to16.0 | 16.0 | |
| | Soil | SS-14A-3A | 12/13/1999 | 1100 | Geoprobe | TPH, VOCs+10, BNs+15, PCBs, Metals | 17.5 to 18.0 | 18.0 | |
| | Soil | SS-14A-4A | 12/13/1999 | 1320 | Geoprobe | TPH, VOCs+10, BNs+15, PCBs, Metals | 13.5 to 14.0 | 14.0 | Sample collected within Former Equalizing Tank |
| | Soil | SS-14A-5A | 11/30/1999 | 1050 | Geoprobe | VOCs, TPH, PCBs | 15.5 to16.0 | 16.0 | Sample collected within Former Septic Pit |
| AOC-14B - Former Septic System - Former Farmhouse | Soil | SS-14B-1A | 11/19/1999 | 1000 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 10.5 to 11.0 | 12.0 | Sample collected with Former Septic Tank |
| | Soil | SS-14B-2A | 11/19/1999 | 1025 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 10.0 to 10.5 | 12.0 | |
| | Soil | SS-14B-3A | 11/19/1999 | 1050 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 10.5 to 11.0 | 12.0 | |
| | Soil | SS-14B-4A | 11/19/1999 | 1110 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 10.0 to 10.5 | 12.0 | |
| | Soil | SS-14B-5A | 11/19/1999 | 1135 | Geoprobe | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5] | 10.5 to 11.0 | 12.0 | |
| AOC-14C - Seepage Pit | Soil | SS-14C-1A | 11/15/1999 | 1100 | Geoprobe | Metals/Iron | 0 to 0.5 | -- | |
| | Soil | SS-14C-1B | 11/15/1999 | 1110 | Geoprobe | Metals/Iron | 9.5 to 10.0 | 10.0 | |
| | Soil | SS-14C-2A | 11/15/1999 | 1140 | Hand Tool | Metals/Iron | 0 to 0.5 | 0.5 | |
| | Soil | SS-14C-3A | 11/15/1999 | 1135 | Hand Tool | Metals/Iron | 0 to 0.5 | 0.5 | |
| | Soil | SS-14C-4A | 11/15/1999 | 1120 | Hand Tool | Metals/Iron | 0 to 0.5 | 0.5 | |
| AOC-15A - Transformer Unit - Northwest Corner of Low Level RadWaste Storage Facility | Soil | SS-15A-1A | 11/29/1999 | 1157 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15A-2A | 11/29/1999 | 1205 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15A-3A | 11/29/1999 | 1150 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15A-4A | 11/29/1999 | 1155 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |

# TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-15B - Transformer Unit - South Side of Low Level RadWase Facility | Soil | SS-15B-1A | 11/23/1999 | 1210 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15B-2A | 11/23/1999 | 1155 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15B-3A | 11/23/1999 | 1205 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15B-4A | 11/23/1999 | 1155 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15B-5A | 11/23/1999 | 1150 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15C - Transformer Unit - Southwest Corner of Material Warehouse | Soil | SS-15C-1A | 11/23/1999 | 1200 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15C-2A | 11/23/1999 | 1230 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15C-3A | 11/23/1999 | 1215 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15C-4A | 11/23/1999 | 1140 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| AOC-15D - Transformer Unit - South Side of Level D Storage Area | Soil | SS-15D-1A | 11/16/1999 | 1153 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 0 to 0.5 | -- | |
| | Soil | SS-15D-1B | 11/16/1999 | 1205 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 1.5 to 2.0 | 2.0 | |
| | Soil | SS-15D-2A | 11/22/1999 | 1005 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 0 to 0.5 | -- | |
| | Soil | SS-15D-2B | 11/22/1999 | 1015 | Hand Auger | TPH, (PCBs, VOCs+10[1]) | 1.5 to 2.0 | 2.0 | PCBs requested, but not analyzed due to lab error. |
| | Soil | SS-15D-3A | 11/16/1999 | 1330 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 0 to 0.5 | -- | |
| | Soil | SS-15D-3B | 11/16/1999 | 1335 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 1.5 to 2.0 | 2.0 | |
| | Soil | SS-15D-4A | 11/22/1999 | 930 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 0 to 0.5 | -- | |
| | Soil | SS-15D-4B | 11/22/1999 | 945 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 1.5 to 2.0 | 2.0 | |
| AOC-15E - Transformer Unit - Southwest Corner of New RadWaste Building | Soil | SS-15E-1A | 11/23/1999 | 1500 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15E-2A | 11/23/1999 | 1510 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15E-3A | 11/23/1999 | 1515 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15F - Transformer Unit - Northeast of Reactor Building | Soil | SS-15F-1A | 11/23/1999 | 1420 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15F-2A | 11/23/1999 | 1430 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | Duplicate sample (151123DUP) taken |
| | Soil | SS-15F-3A | 11/23/1999 | 1435 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15F-4A | 11/23/1999 | 1440 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | Staining observed on concrete pad |
| | Soil | SS-15F-5A | 11/23/1999 | 1445 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15G - Transformer Unit - Southwest Corner of Administration Building | Soil | SS-15G-1A | 11/29/1999 | 1040 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-2A | 11/29/1999 | 1050 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-3A | 11/29/1999 | 1105 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-4A | 11/29/1999 | 1055 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-5A | 11/29/1999 | 1115 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-6A | 11/29/1999 | 1010 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15G-7A | 11/29/1999 | 1025 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15H - Transformer Unit - Southwest Corner of Site Emergency Building | Soil | SS-15H-1A | 12/13/1999 | 1405 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 2 ft. |
| | Soil | SS-15H-2A | 12/13/1999 | 1415 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 2 ft. |
| | Soil | SS-15H-3A | 12/13/1999 | 1422 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 3 ft. |
| | Soil | SS-15H-4A | 12/13/1999 | 1435 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 2 ft. |
| | Soil | SS-15H-5A | 12/13/1999 | 1445 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 2 ft. |
| | Soil | SS-15H-6A | 12/13/1999 | 1455 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | River rock to 1 ft, Pea gravel to 2 ft. |
| AOC-15I - Transformer Unit - East End of Plant Engineering Building (Auxiliary Office Building) | Soil | SS-15I-1A | 11/23/1999 | 1432 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | Staining observed on concrete pad |
| | Soil | SS-15I-2A | 11/23/1999 | 1410 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15I-3A | 11/23/1999 | 1420 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15I-4A | 11/23/1999 | 1430 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | Staining observed on concrete pad |
| AOC-15J - Transformer Unit - West Side of Pre-treatment Building | Soil | SS-15J-1A | 11/29/1999 | 1600 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15J-2A | 11/29/1999 | 1615 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15J-3A | 11/24/1999 | 900 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | | | 01/03/2000 | 1052 | Geoprobe | VOCs+10 | 0 to 2.0 | 2.0 | Sampled for VOCs based on TPH results. |
| AOC-15K - Main and Auxiliary Transformers West Side of Turbine Building[7] | Soil | SS-15K-1A | 11/17/1999 | 1440 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-1B | 11/17/1999 | 1450 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15K-2A | 11/17/1999 | 1608 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-2B | 11/17/1999 | 1616 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |

## TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-15K - Main and Auxiliary Transformers West Side of Turbine Building[7] (Continued) | Soil | SS-15K-3A | 11/17/1999 | 1340 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-3B | 11/17/1999 | 1405 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15K-4A | 11/18/1999 | 957 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-4B | 11/18/1999 | 1007 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15K-5A | 11/17/1999 | 1015 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-5B | 11/17/1999 | 1117 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | Duplicate sample (SS-15K-DUP) taken |
| | Soil | SS-15K-6A | 11/17/1999 | 1050 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-6B | 11/17/1999 | 1100 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15K-7A | 11/18/1999 | 900 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-7B | 11/18/1999 | 907 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15K-8A | 11/17/1999 | 1140 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15K-8B | 11/17/1999 | 1145 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | MW-15K-1A | 12/09/1999 | 1050 | Geoprobe | TPH, PCBs, VOCs+10 | 10.5 to 11.0 | 15.0 | Collected during installation of GW-15K-1A |
| | Groundwater | GW-15K-W3 | 09/02/1999 | 1450 | Groundwater | VOCs+10, PCBs | Cape May Formation | NA | Duplicate sample (DUP-W) taken |
| | Groundwater | GW-15K-W4 | 09/03/1999 | 935 | Groundwater | VOCs+10, PCBs | Cohansey Formation | NA | |
| | Groundwater | GW-15K-1A | 12/22/1999 | 1517 | Groundwater | VOCs+10, BNs+15, PCBs | Cape May Formation | NA | Identified as MW-27-1A; used to evaluate AOCs-15K, -15L |
| AOC-15L - Transformer Unit - West Side of Turbine Building, South of Chlorination Facility | Soil | SS-15L-1A | 11/18/1999 | 1355 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15L-1B | 11/18/1999 | 1400 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Soil | SS-15L-2A | 11/18/1999 | 1046 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 2.0 to 2.5 | -- | |
| | Soil | SS-15L-2B | 11/18/1999 | 1052 | Hand Auger | TPH, PCBs, (VOCs+10[1]) | 4.0 to 4.5 | 4.5 | |
| | Groundwater | GW-15K-1A | 12/22/1999 | 1517 | Groundwater | VOCs+10, BNs+15, PCBs | Cape May Formation | NA | Identified as MW-27-1A; used to evaluate AOCs-15K, -15L |
| AOC-15M - Transformer Unit - Southeast Corner of Intake Structure | Soil | SS-15M-1A | 11/24/1999 | 942 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15M-2A | 11/24/1999 | 1030 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15M-3A | 11/24/1999 | 1100 | Geoprobe | TPH, PCBs | 0 to 0.5 | 0.5 | 0.5 ft of asphalt |
| | Soil | SS-15M-4A | 11/29/1999 | 1645 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | | | 01/03/2000 | 1129 | Hand Tool | VOCs+10 | 0 to 2.0 | 2 | Sampled for VOCs+10 based on TPH results. |
| AOC-15N - Transformer Unit - Northeast Corner of Fire Water Storage Tank | Soil | SS-15N-1A | 11/23/1999 | 1128 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15N-2A | 11/23/1999 | 1129 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15N-3A | 11/23/1999 | 1130 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15N-4A | 11/23/1999 | 1135 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15O - Transformer Unit - Southwest Corner of Trailer 300 Complex | Soil | SS-15O-1A | 11/30/1999 | 1400 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15O-2A | 11/30/1999 | 1415 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15O-3A | 11/30/1999 | 1425 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15O-4A | 11/30/1999 | 1435 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15P - Transformer Unit - East End of Breathing Air Compressor Building | Soil | SS-15P-1A | 11/23/1999 | 1330 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15P-2A | 11/23/1999 | 1335 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15P-3A | -- | -- | -- | -- | -- | -- | Proposed location, obstruction encountered, not sampled. |
| | Soil | SS-15P-4A | 11/23/1999 | 1340 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-15Q - Transformer Unit - West of Low Level RadWaste Storage Facility | Soil | SS-15Q-1A | 12/03/1999 | 1430 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15Q-2A | 12/03/1999 | 1440 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15Q-3A | 12/03/1999 | 1450 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| | Soil | SS-15Q-4A | 12/03/1999 | 1500 | Hand Tool | TPH, PCBs | 0 to 0.5 | 0.5 | |
| AOC-16A - Hazardous Waste Collection Station | Soil | SS-16A-1A | 11/18/1999 | 1525 | Hand Auger | TPH | 0 to 2.0[3] | 2.0 | |
| | | | 01/03/2000 | 957 | Hand Auger | VOCs+10, BN/AEs+25 | 0 to 2.0[3] | 2.0 | Sampled for VOCs+10, BN/AE's+15 based on TPH results. |
| | Soil | SS-16A-2A | 11/18/1999 | 1550 | Hand Auger | TPH | 0 to 2.0[3] | 2.0 | Duplicate sample (SS-16A-DUP) taken. |
| | | | 01/03/2000 | 1025 | Hand Auger | VOCs+10, BN/AEs+25 | 0 to 2.0[3] | 2.0 | Sampled for VOCs+10 based on TPH results. Duplicate sample (SS-16A-2AD) taken. |
| | Soil | SS-16A-3A | 11/19/1999 | 1121 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-16A-4A | 11/19/1999 | 1105 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-16A-5A | 11/19/1999 | 913 | Hand Auger | TPH, VOCs+10, BN/AEs+25 | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-16A-6A | 11/19/1999 | 955 | Hand Auger | TPH, VOCs+10, BN/AEs+25, PCBs, Metals | 0 to 2.0[3] | 2.0 | |
| | Soil | SS-16A-7A | 11/19/1999 | 1024 | Hand Auger | TPH, VOCs+10, BN/AEs+25 | 0 to 2.0[3] | 2.0 | |

## TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-16B - Former Hazardous Waste Collection Shed | Soil | SS-16B-1A | 11/16/1999 | 1645 | Geoprobe | TPH, VOCs+10, BN/AEs+25 | 0 to 2.0[3] | 4.0 | |
| | Soil | SS-16B-2A | 11/16/1999 | 1605 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs), Metals[5], Iron | 0 to 2.0[3] | 4.0 | Duplicate sample (SS-16B-2AD) taken. |
| AOC-16C - Former Drum Storage Area/ Storage Building | Soil | SS-16C-1A | 11/16/1999 | 1340 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-1B | 11/16/1999 | 1410 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 15.5 to 16.0 | 16.0 | |
| | Soil | SS-16C-2A | 11/16/1999 | 955 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-2B | 11/16/1999 | 1050 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 15.5 to 16.0 | 16.0 | Same location as AOC 17G, SS-17G-4A |
| | Soil | SS-16C-3A | 11/16/1999 | 830 | Geoprobe | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5], Iron | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-3B | 11/16/1999 | 920 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 15.5 to 16.0 | 16.0 | |
| | Soil | SS-16C-4A | 11/16/1999 | 1435 | Geoprobe | TPH, VOCs+10, BN/AEs+25, PCBs, Metals[5], Iron | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-4B | 11/16/1999 | 1545 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 15.5 to 16.0 | 16.0 | |
| | Soil | SS-16C-5A | 11/16/1999 | 1120 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-5B | 11/16/1999 | 1155 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 15.5 to 16.0 | 16.0 | Same location as AOC 17G, SS-17G-5A |
| | Soil | SS-16C-6A | 11/15/1999 | 1345 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 0 to 2.0[3] | -- | |
| | Soil | SS-16C-6B | 11/15/1999 | 1410 | Geoprobe | TPH, VOCs+10, BN/AEs+25, (PCBs, Metals[5]) | 5.5 to 6.0 | 6.0 | Concrete obstruction at 6.0 ft |
| AOC-16D - Historical Storage of Chromate Solution near New RadWaste Building | Soil | SS-16D-1A | 09/02/1999 | 920 | Hand Auger | Total and Hexavalent Chromium | 5.0 to 5.5 | 5.5 | Duplicate sample (DUP) taken. Sample depth was proposed at 0.5 ft above groundwater. |
| | Soil | SS-16D-2A | 09/02/1999 | 1445 | Geoprobe | Total and Hexavalent Chromium | 14.25 to 14.75 | 15.0 | |
| | Soil | SS-16D-3A | 09/02/1999 | 1340 | Geoprobe | Total and Hexavalent Chromium | 13.0 to 13.5 | 15.5 | |
| | Soil | SS-16D-4A | 09/02/1999 | 930 | Geoprobe | Total and Hexavalent Chromium | 5.5 to 6.0 | 6.0 | Boring was terminated at 6.0 ft bgs as an obstruction was encountered. |
| | Groundwater | GW-16D-W12 | 09/03/1999 | 1212 | Groundwater | Total and Hexavalent Chromium | Cape May Formation | NA | |
| | Groundwater | GW-16D-W13 | 09/03/1999 | 1157 | Groundwater | Total and Hexavalent Chromium | Cohansey Formation | NA | |
| AOC-16E - Historical Storage of Chromate Solution near Drywell Processing Center | Soil | SS-16E-1A | 09/02/1999 | 1635 | Geoprobe | Total and Hexavalent Chromium | 17.5 to 18.0 | 19.0 | |
| | Soil | SS-16E-2A | 09/03/1999 | 845 | Geoprobe | Total and Hexavalent Chromium | 15.5 to 16.0 | 19.0 | |
| | Soil | SS-16E-3A | 09/02/1999 | 1730 | Geoprobe | Total and Hexavalent Chromium | 19.0 to 19.5 | 20.0 | |
| | Soil | SS-16E-4A | 09/03/1999 | 950 | Geoprobe | Total and Hexavalent Chromium | 18.25 to 18.75 | 19.0 | |
| | Groundwater | GW-16E-W12[8] | 09/03/1999 | 1212 | Groundwater | Total and Hexavalent Chromium | Cape May Formation | NA | |
| | Groundwater | GW-16E-W13[8] | 09/03/1999 | 1157 | Groundwater | Total and Hexavalent Chromium | Cohansey Formation | NA | |
| AOC-16F - Historical Storage of Chromate Solution near Old RadWaste Building | Soil | SS-16F-1A | 09/02/1999 | 1007 | Geoprobe | Total and Hexavalent Chromium | 17.0 to 17.5 | 20.0 | |
| | Soil | SS-16F-2A | 09/02/1999 | 1050 | Geoprobe | Total and Hexavalent Chromium | 15.0 to 15.5 | 16.0 | |
| AOC-17C - Release Date 10/30/1980 | Soil | SS-17C-1A | 11/17/1999 | 1345 | Geoprobe | TPH, PCBs, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | |
| | Soil | SS-17C-2A | 11/17/1999 | 1325 | Geoprobe | TPH, PCBs, (VOCs+10[1]) | 5.5 to 6.0 | 8.0 | |
| AOC-17G - Release from Underground Piping near Emergency Diesel Generator Building | Soil | SS-17G-1A | 11/18/1999 | 1550 | Geoprobe | TPH, (VOCs+10[1]) | 18.0 to 18.5 | 20.0 | |
| | Soil | SS-17G-2A | 11/18/1999 | 935 | Geoprobe | TPH, (VOCs+10[1]) | 15.25 to 15.75 | 16.0 | |
| | Soil | SS-17G-3A | 11/18/1999 | 1009 | Geoprobe | TPH, (VOCs+10[1]) | 15.5 to 16.0 | 16.0 | |
| | Soil | SS-17G-4A | 11/16/1999 | 1410 | Geoprobe | TPH, VOCs+10[1] | 15.5 to 16.0 | 16.0 | Same location as AOC-16C, SS-16C-2B |
| | Soil | SS-17G-5A | 11/16/1999 | 1155 | Geoprobe | TPH, VOCs+10[1] | 15.5 to 16.0 | 16.0 | Same location as AOC16C, SS-16C-5B |
| | Soil | SS-17G-6A | 11/18/1999 | 1450 | Geoprobe | TPH, (VOCs+10[1]) | 15.5 to 16.0 | 16.0 | Duplicate sample (SS-17G-6AD) taken. |
| | Soil | SS-17G-7A | 11/18/1999 | 1110 | Geoprobe | TPH, VOCs+10[1] | 15.5 to 16.0 | 20.0 | Boring continued from AOC-5A, SS-5A-13A |
| | Soil | SS-17G-8A | 11/18/1999 | 1420 | Geoprobe | TPH, (VOCs+10[1]) | 16.0 to 16.5 | 20.0 | |
| AOC-17H - Release Date 08/16/1987 | Soil | SS-17H-1A | 11/16/1999 | 1550 | Hand Auger | TPH, (VOCs+10[1]) | 3.0 to 3.5 | 3.5 | Boring was terminated at 3.5 ft bgs as an obstruction was encountered. |
| AOC-18B - Former Laydown Area at NE OCNGS | Soil | SS-18B-1A | 11/16/1999 | 1050 | Hand Auger | Metals/Iron | 0 to 0.5 | 0.5 | |
| | Soil | SS-18B-2A | 11/16/1999 | 1030 | Hand Auger | Metals/Iron | 0 to 0.5 | -- | |
| | Soil | SS-18B-2B | 11/16/1999 | 1040 | Hand Auger | Metals/Iron | 1.5 to 2.0 | 2.0 | |
| | Soil | SS-18B-3A | 11/16/1999 | 1126 | Hand Auger | Metals/Iron | 0 to 0.5 | 0.5 | |
| | Soil | SS-18B-4A | 11/16/1999 | 1108 | Hand Auger | Metals/Iron | 0 to 0.5 | 0.5 | |

## TABLE 2
## SAMPLING SUMMARY

| AOC-ID - Description | Matrix | Sample ID | Sample Date | Sample Time | Sampling Method | Analytical Parameters | Sample Depth Interval(s) (ft bgs) or Formation | Completion Depth (ft bgs) | Notes |
|---|---|---|---|---|---|---|---|---|---|
| AOC-19A - Joy Air Compressor | Soil | SS-19A-1A | 11/16/1999 | 1605 | Hand Auger | TPH, (PAHs[4]) | 0 to 0.5 | 0.5 | |
| AOC-19B - Former Mobile Compressor | Soil | SS-19B-1A | 11/16/1999 | 1537 | Hand Auger | TPH, (PAHs[4]) | 0 to 0.5 | 0.5 | Staining observed on ground surface |
| AOC-19D - Skid-Mounted Air Compressor | Soil | SS-19D-1A | 11/30/1999 | 1130 | Hand Tool | TPH, PAHs[4] | 0 to 0.5 | 0.5 | Staining on asphalt and on soil |
| | Soil | SS-19D-2A | 11/30/1999 | 1140 | Hand Tool | TPH, (PAHs[4]) | 0 to 0.5 | 0.5 | Staining on asphalt and on soil |
| AOC-21A - South Well | Groundwater | GW- 21A | 12/21/1999 | 1355 | Groundwater | VOCs+10, BNs+15 | Kirkwood Formation | NA | Identified as GW-21A-2A on chain of custody |
| AOC-21B - North Well | Groundwater | GW- 21B | 01/05/2000 | 1411 | Groundwater | VOCs+10, MTBE, TBA | Kirkwood Formation | NA | Identified as GW-21B-1B on chain of custody |
| AOC-24 - Upland Confined Disposal Facility | Groundwater | GW- 24-1A | 12/22/1999 | 945 | Groundwater | VOCs+10, BN/AEs+25, PCBs, Metals | Cape May Formation | NA | Duplicate sample (GW-DUP1/9:45) taken. |
| | Groundwater | GW- 24-2A | 12/22/1999 | 1150 | Groundwater | VOCs+10, BN/AEs+25, PCBs, Metals | Cape May Formation | NA | |
| | Groundwater | GW- 24-3A | 12/22/1999 | 1345 | Groundwater | VOCs+10, BN/AEs+25, PCBs, Metals | Cape May Formation | NA | |

Notes:
1 - Sample collected for VOCs+10 analysis required in 25% of samples in which TPH in soil is >1,000 ppm (parameters in parentheses = not analyzed based on TPH results).
2 - Soil sample for TPH analysis lost; therefore, sample for VOCs+10 was analyzed.
3 - Sample for parameters other than VOCs collected from 0 to 0.5 ft bgs; VOCs collected at 1.5 to 2.0 ft bgs.
4 - Sample collected for PAHs analysis required in 25% of samples in which TPH in soil >100 ppm (parameters in parentheses = not analyzed based on TPH results).
5 - Sample collected for PCBs and metals analysis required in 25% of samples in which TPH was detected (parameters in parentheses = not analyzed based on TPH results).
6 - AOC-7B and -8A could not be sampled due to underground utilities; soil samples from AOC-15M were used to evaluate AOC-7B and -8A due to their proximity.
7 - Soil samples collected at AOC-15K used to address AOC-15M and AOC-15N.
8 - Groundwater samples collected at wells W-12 and W-13 were used to evaluate both AOC-16D and AOC–16E due to their proximity to these wells.

TPH = Total petroleum hydrocarbons
VOCs+10 = Volatile organic compounds + library search
BN/AEs+25 = Base neutral/acid extractable compounds + library search
BNs+15 = Base neutral compounds + library search
PCBs = Polychlorinated biphenyls
PAHs = Polycyclic aromatic hydrocarbons
Metals = Priority Pollutant Metals
HSA = Hollow stem auger
MTBE = Methyl tertiary-butyl ether
TBA = Tertiary-butyl alcohol

**Table 3**
**Ground Water Elevations: January 3, 2000**
**GPU Nuclear - Oyster Creek Nuclear Generating Station**

| Well Number | | Groundwater Formation | Year Installed | Northing NAD 27 | Easting NAD 27 | Screen Length | Casing + Screen Length | Reference Elevation | Distance to Water | Distance to LNAPL | LNAPL Thickness | Corrected Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3- | D | | pre-1981 | | | | 54 | 17.6 | 16.6 | | 0 | 1.00 |
| P- | 12 | | pre-1981 | | | | 30.1 | 7.3 | 5.1 | | 0 | 2.20 |
| | | | | | | | | | | | | |
| Site Diversion Well Network | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 1- | C | | pre-1981 | | | | 60 | 30.85 | 18.54 | | 0 | 12.31 |
| 1- | K | | pre-1981 | | | | 100 | 31.02 | 10.46 | | 0 | 20.56 |
| 2- | C | | pre-1981 | | | | 60 | 25.75 | 22.64 | | 0 | 3.11 |
| 2- | K | | pre-1981 | | | | 100 | 21.95 | 7.94 | | 0 | 14.01 |
| 3- | C | Cohansey | pre-1981 | 356748 | 2131446 | | 60 | 10.51 | 6.1 | | 0 | 4.41 |
| 3- | K | Kirkwood | pre-1981 | 356738 | 2131446 | | 100 | 10.09 | 0.7 | | 0 | 9.39 |
| 4- | C | Cohansey | pre-1981 | 359508 | 2130431 | | 60 | 9.72 | 1.3 | | 0 | 8.42 |
| 4- | K | Kirkwood | pre-1981 | 359518 | 2130431 | | 100 | 11.56 | 0 | | 0 | 11.56 |
| 5- | C | Cohansey | pre-1981 | 357364 | 2136185 | | 60 | 5.85 | 9.6 | | 0 | -3.75 |
| 5- | K | Kirkwood | pre-1981 | 357354 | 2136185 | | 100 | 5.84 | 6.4 | | 0 | -0.56 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Note:
1) GW elevation = (reference elevation - distance to water) + (LNAPL thickness *0.9)
where 0.9 = assumed density of floating product.
2) Not all of the Diversion Well Network is in the Study Area. Wells 1C/K and 2C/K are west of the canal.
3) All wells except 1999 wells were originally surveyed in latitude and longitude. Coordinates converted to northings and eastings using Corpscom.
NE = No Elevation
=Not used to determine groundwater flow

# TABLE 4
## ANALYTICAL METHODS AND QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

| MATRIX | ANALYTICAL PARAMETER | USEPA METHOD | # SAMPLES | # FBs | # TBs | # MBs | # DUPs |
|---|---|---|---|---|---|---|---|
| SOIL | Total petroleum hydrocarbons (TPH) | 418.1 Modified | 184 | 15 | NA | NA | 6 |
| | Target Compound List (TCL) volatile organic compounds (VOCs) +10 | 8260B | 58 | NA | 7 | 11 | 2 |
| | TCL Semivolatile organic compounds (SVOCs)* | 8270C | 46 | 3 | NA | NA | 2 |
| | Total chromium/Hexavalent chromium** | 6010B/7196 A | 23 | 3 | NA | NA | 1 |
| | Polychlorinated biphenyls (PCBs) | 8082 | 105 | 15 | NA | NA | 3 |
| | Priority pollutant metals/Iron | 6010B ( mercury-7471A) | 25/14 | 9/5 | NA | NA | 1/1 |
| | Tertiary-butyl alcohol (TBA) | 8260B | 6 | 0 | 1 | 1 | 0 |
| | Methyl tertiary-butyl ether (MTBE) (off-site laboratory) | 8260B | 6 | 0 | 1 | 1 | 0 |
| | Methyl tertiary-butyl ether (MTBE) (mobile laboratory) | NA | 6 | 0 | NA | NA | 0 |
| GROUND-WATER | TCL VOCs +10 | 624 | 26 | 3 | 2 | NA | 2 |
| | SVOCs* | 625 | 8 | 2 | NA | NA | 1 |
| | Hexavalent chromium | 7196 A | 6 | 3 | NA | NA | 2 |
| | Total chromium/Hexavalent chromium | 6010B/7196 A | 6 | 3 | NA | NA | 1/2 |
| | PCBs | 608 | 6 | 2 | NA | NA | 2 |
| | Priority Pollutant Metals | 6010B ( mercury-7471A) | 3 | 1 | NA | NA | 1 |
| | Tertiary-butyl alcohol (TBA) | 8260B | 17 | 1 | 1 | NA | 0 |
| | Methyl tertiary-butyl ether (MTBE) (off-site laboratory) | 8260B | 17 | 1 | 1 | NA | 0 |
| | MTBE (mobile laboratory) | NA | 15 | 0 | NA | NA | 0 |
| SURFACE WATER | TPH | 418.1 | 7 | 1 | NA | NA | 1 |
| | TCL VOCs +10 | 624 | 7 | 1 | 1 | 1 | 1 |
| | SVOCs* | 625 | 7 | 1 | NA | NA | 1 |
| | Total chromium/Hexavalent chromium | 6010B/7196 A | 7 | 1 | NA | NA | 1 |
| | PCBs | 608 | 7 | 1 | NA | NA | 1 |
| | Priority Pollutant Metals/Iron | 6010B (mercury-7471A) | 7 | 1 | NA | NA | 1 |
| | Total Organic Carbon | 9060 | 7 | 1 | NA | NA | 1 |
| SEDIMENT | TPH | 418.1 Modified | 7 | 1 | NA | NA | 1 |
| | TCL VOCs +10 | 8260B | 7 | 1 | 1 | 1 | 1 |
| | SVOCs* | 8270C | 7 | 1 | NA | NA | 1 |
| | Total chromium/Hexavalent chromium | 6010B/7196 A | 7 | 1 | NA | NA | 1 |
| | PCBs | 8082 | 7 | 1 | NA | NA | 1 |
| | Priority Pollutant Metals/Iron | 6010B (mercury-7471) | 7 | 1 | NA | NA | 1 |
| | Total Organic Carbon | 9060 | 7 | 1 | NA | NA | 1 |

Notes:
NA = Not Applicable FB = Field Blank TB = Trip Blank MB = Methanol Blank DUP = Duplicate sample
* "SVOCs" also refers to limited lists of SVOCs (e.g., base neutral compounds and polycyclic aromatic hydrocarbons).
**Four soil samples were re-analyzed using a Varian graphite furnace following guidance provided in SW846 according to method 7841.

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-1A | | DUP1010* | | SS-1A-1B | | SS-1A-2A | | SS-1A-2B |
| LAB ID | Unrestricted Use | | 93520-003 | | 93520-008 | | 93524-002 | | 93524-005 | | 93524-001 |
| SAMPLE COLLECTION DATE | Soil | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 30 | | 21 | | 23 | | 160 | | 510 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Tertiary Butyl Alcohol | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0 66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-1A | | DUP1010* | | SS-1A-1B | | SS-1A-2A | | SS-1A-2B |
| LAB ID | Unrestricted Use | | 93520-003 | | 93520-008 | | 93524-002 | | 93524-005 | | 93524-001 |
| SAMPLE COLLECTION DATE | Soil | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 30 | | 21 | | 23 | | 160 | | 510 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA |

**NOTES:**

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
2 Criterion developed for trivalent chromium used for comparisons for total chromium results
3 Ingestion exposure pathway criteria
4 Inhalation exposure pathway criteria
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-3A | | SS-1A-3B | | SS-1A-4A | | SS-1A-4B | | SS-1A-5A |
| LAB ID | Unrestricted Use | | 93520-006 | | 93524-003 | | 93524-013 | | 93524-010 | | 93520-007 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/02/1999 | | 09/02/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 46 | 21.0 | -- | | NA | | 29 | | 87 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | 1.200 | -- | | NA | | NA |
| Benzene | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Bromoform | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | **1.200** | -- | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | 1.200 | -- | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | 0.620 | -- | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Chloroethane | NC | | NA | | NA | 1.200 | -- | | NA | | NA |
| Chloroform | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | 1.200 | -- | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | 0.620 | -- | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | 1.200 | -- | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | **1.200** | -- | | NA | | NA |
| Styrene | 23 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Toluene | 500 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | 0.620 | -- | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | 1.200 | -- | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | 0.620 | -- | | NA | | NA |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Tertiary Butyl Alcohol | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | -- | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | -- | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-3A | | SS-1A-3B | | SS-1A-4A | | SS-1A-4B | | SS-1A-5A |
| LAB ID | Unrestricted Use | | 93520-006 | | 93524-003 | | 93524-013 | | 93524-010 | | 93520-007 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/02/1999 | | 09/02/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 46 | | -- | | -- | | 29 | | 87 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
[2] Criterion developed for trivalent chromium used for comparisons for total chromium results
[3] Ingestion exposure pathway criteria
[4] Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-5B | | SS-1A-6A | | SS-1A-6B | | MW-1A-1A | | MW-1A-2A |
| LAB ID | Unrestricted Use | | 93524-011 | | 93524-012 | | 93524-004 | | 173460 | | 174357 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 12/03/1999 | | 12/09/1999 |
| DEPTH | Cleanup | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 17.5-18.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 23 | | 45 | | 110 | | 28.6 | 25.0 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Benzene | 1 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| Bromodichloromethane | 1 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| Bromoform | 1 | | NA | | NA | | NA | 0.500 | -- | 0.500 | -- |
| Bromomethane | 1 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| 2-Butanone | 50 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Carbon Disulfide | NC | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| Chlorobenzene | 1 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Chloroethane | NC | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| Chloroform | 1 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Chloromethane | 10 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Ethylbenzene | 100 | | NA | | NA | | NA | 0.500 | -- | 0.500 | -- |
| 2-Hexanone | NC | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Methylene Chloride | 1 | | NA | | NA | | NA | 0.380 | -- | 0.370 | -- |
| Styrene | 23 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| Tetrachloroethene | 1 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| Toluene | 500 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | 0.380 | -- | 0.370 | -- |
| Trichloroethylene | 1 | | NA | | NA | | NA | 0.120 | -- | 0.120 | -- |
| Vinyl Chloride | 2 | | NA | | NA | | NA | 0.250 | -- | 0.250 | -- |
| Xylenes (Total) | 67 | | NA | | NA | | NA | 0.630 | -- | 0.620 | -- |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Tertiary Butyl Alcohol | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2-Nitrophenol | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | 1.500 | -- | 1.600 | -- |
| 4-Nitrophenol | NC | | NA | | NA | | NA | 1.500 | -- | 1.600 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | 1.500 | -- | 1.600 | -- |
| Pentachlorophenol | 6 | | NA | | NA | | NA | 1.500 | -- | 1.600 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A | | AOC-1A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1A-5B | | SS-1A-6A | | SS-1A-6B | | MW-1A-1A | | MW-1A-2A |
| LAB ID | Unrestricted Use | | 93524-011 | | 93524-012 | | 93524-004 | | 173460 | | 174357 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 12/03/1999 | | 12/09/1999 |
| DEPTH | Cleanup | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 17.5-18.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Hexachloroethane | 6 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Nitrobenzene | 10 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Isophorone | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Naphthalene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | 0.075 | -- | 0.079 | -- |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 2-Nitroaniline | NC | | NA | | NA | | NA | 0.750 | -- | 0.790 | -- |
| Dimethylphthalate | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Acenaphthylene | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 3-Nitroaniline | NC | | NA | | NA | | NA | 0.750 | -- | 0.790 | -- |
| Acenaphthene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Dibenzofuran | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | 0.075 | -- | 0.079 | -- |
| Diethylphthalate | 50 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Fluorene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Nitroaniline | NC | | NA | | NA | | NA | 0.750 | -- | 0.790 | -- |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Phenanthrene | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Anthracene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Carbazole | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Fluoranthene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Pyrene | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | 0.750 | -- | 0.790 | -- |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Chrysene | 9 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | 0.064 | 0.400 | -- |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | 0.038 | -- | 0.040 | -- |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | 0.380 | -- | 0.400 | -- |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | 0.4 | | 2.02 |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | 0.484 | | 2.02 |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 23 | | 45 | | 110 | | 29.08 | | 2.02 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA |

**NOTES:**

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
2 Criterion developed for trivalent chromium used for comparisons for total chromium results
3 Ingestion exposure pathway criteria
4 Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1D | | AOC-1E | | AOC-1F | | AOC-1G | | AOC-1G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1D-1A | | SS-1E-1A | | SS-1F-1A | | SS-1G-1A | | SS-1G-1B |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 172944 | | 172948 | | 94476-027 993119A-10 | | 00061-014 | | 00098-001 |
| SAMPLE COLLECTION DATE | | | 12/03/1999 | | 12/03/1999 | | 11/16/1999 | | 01/05/2000 | | 01/05/2000 |
| DEPTH | | | 0.0-2.0 | | 0.0-0.5 | | 0.0-0.5 | | 1.5-2.0 | | 11.0-11.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 1610 | | 56.2 | | 169 | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 0.650 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| Benzene | 1 | 0.130 | -- | | NA | | NA | 0.700 | -- | 0.620 | -- |
| Bromodichloromethane | 1 | 0.130 | -- | | NA | | NA | 0.700 | -- | 0.620 | -- |
| Bromoform | 1 | 0.520 | -- | | NA | | NA | 0.700 | -- | 0.620 | -- |
| Bromomethane | 1 | 0.260 | -- | | NA | | NA | **1.400** | -- | **1.200** | -- |
| 2-Butanone | 50 | 0.650 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| Carbon Disulfide | NC | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Carbon Tetrachloride | 1 | 0.260 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Chlorobenzene | 1 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Chlorodibromomethane | 1 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Chloroethane | NC | 0.260 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| Chloroform | 1 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Chloromethane | 10 | 0.260 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| 1,1-Dichloroethane | 10 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,2-Dichloroethane | 1 | 0.260 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,1-Dichloroethene | 8 | 0.260 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,2-Dichloropropane | 10 | 0.130 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Ethylbenzene | 100 | 0.520 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 2-Hexanone | NC | 0.650 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| 4-Methyl-2-Pentanone | 50 | 0.650 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| Methylene Chloride | 1 | 0.390 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Styrene | 23 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.130 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Tetrachloroethene | 1 | 0.130 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Toluene | 500 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,1,1-Trichloroethane | 50 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| 1,1,2-Trichloroethane | 1 | 0.390 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Trichloroethylene | 1 | 0.130 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Vinyl Chloride | 2 | 0.260 | -- | | NA | | NA | 1.400 | -- | 1.200 | -- |
| Xylenes (Total) | 67 | 0.650 | -- | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA | | NA | 0.680 | -- | 0.600 | -- |
| Tertiary Butyl Alcohol | NC | | NA | | NA | | NA | 6.800 | -- | 6.000 | -- |
| **Total Non-Target VOCs** | NC | | -- | | NA | | NA | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | NA | | NA | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1D | | AOC-1E | | AOC-1F | | AOC-1G | | AOC-1G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1D-1A | | SS-1E-1A | | SS-1F-1A | | SS-1G-1A | | SS-1G-1B |
| LAB ID | Unrestricted Use | | 172944 | | 172948 | | 94476-027 993119A-10 | | 00061-014 | | 00098-001 |
| SAMPLE COLLECTION DATE | Soil | | 12/03/1999 | | 12/03/1999 | | 11/16/1999 | | 01/05/2000 | | 01/05/2000 |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-0.5 | | 0.0-0.5 | | 1.5-2.0 | | 11.0-11.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | 0.350 | -- | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Isophorone | 50 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | 1.696 | -- | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | 1.696 | -- | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | 0.024 | JB | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| Fluorene | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | 1.696 | -- | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | 0.047 | J | NA | | NA |
| Anthracene | 100 | | NA | | NA | | 0.026 | J | NA | | NA |
| Carbazole | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | 0.076 | JB | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | 0.093 | J | NA | | NA |
| Pyrene | 100 | | NA | | NA | | 0.073 | J | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | 0.011 | J | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | 0.700 | -- | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | 0.046 | J | NA | | NA |
| Chrysene | 9 | | NA | | NA | | 0.041 | J | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | 0.150 | JB | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | 0.040 | J | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | 0.051 | J | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | 0.044 | J | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | 0.024 | J | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | 0.019 | J | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | 0.350 | -- | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | 0.350 | -- | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | -- | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | 0.77 | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 1610 | | 56.2 | | 169.77 | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
2 Criterion developed for trivalent chromium used for comparisons for total chromium results
3 Ingestion exposure pathway criteria
4 Inhalation exposure pathway criteria
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

**TABLE 5 - AOC-1**
**ANALYTICAL RESULTS - SOIL**
**OYSTER CREEK NUCLEAR GENERATING STATION**

| AREA OF CONCERN | | | AOC1-G | | AOC-1G | | AOC-1G | | AOC-1G | | AOC-1I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1G-2A | | SS-1G-3A | | SS-1G-3B | | SS-1G-4A | | SS-1I-1A |
| LAB ID | Unrestricted Use | | 00061-017 | | 00061-020 | | 00098-002 | | 00061-021 | | 93486-001 |
| SAMPLE COLLECTION DATE | Soil | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 09/01/1999 |
| DEPTH | Cleanup | | 1.5-2.0 | | 1.5-2.0 | | 7.0-7.5 | | 1.5-2.0 | | 0.5-1.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| Benzene | 1 | 0.640 | -- | 0.640 | -- | 0.650 | -- | 0.700 | -- | | NA |
| Bromodichloromethane | 1 | 0.640 | -- | 0.640 | -- | 0.650 | -- | 0.700 | -- | | NA |
| Bromoform | 1 | 0.640 | -- | 0.640 | -- | 0.650 | -- | 0.700 | -- | | NA |
| Bromomethane | 1 | **1.200** | -- | **1.200** | -- | **1.200** | -- | **1.400** | -- | | NA |
| 2-Butanone | 50 | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| Carbon Disulfide | NC | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Carbon Tetrachloride | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Chlorobenzene | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Chlorodibromomethane | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Chloroethane | NC | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| Chloroform | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Chloromethane | 10 | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| 1,1-Dichloroethane | 10 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,2-Dichloroethane | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,1-Dichloroethene | 8 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Cis-1,2-Dichloroethene | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Trans-1,2-Dichloroethene | 50 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,2-Dichloropropane | 10 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,3-Dichloropropene (Total) | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Ethylbenzene | 100 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 2-Hexanone | NC | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| 4-Methyl-2-Pentanone | 50 | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| Methylene Chloride | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Styrene | 23 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Tetrachloroethene | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Toluene | 500 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,1,1-Trichloroethane | 50 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| 1,1,2-Trichloroethane | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Trichloroethylene | 1 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Vinyl Chloride | 2 | 1.200 | -- | 1.200 | -- | 1.200 | -- | 1.400 | -- | | NA |
| Xylenes (Total) | 67 | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Methyl Tertiary-Butyl Ether | NC | 0.620 | -- | 0.620 | -- | 0.630 | -- | 0.680 | -- | | NA |
| Tertiary Butyl Alcohol | NC | 6.200 | -- | 6.200 | -- | 6.300 | -- | 6.800 | -- | | NA |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | -- | | NA |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC1-G | | AOC-1G | | AOC-1G | | AOC-1G | | AOC-1I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1G-2A | | SS-1G-3A | | SS-1G-3B | | SS-1G-4A | | SS-1I-1A |
| LAB ID | Unrestricted | | 00061-017 | | 00061-020 | | 00098-002 | | 00061-021 | | 93486-001 |
| SAMPLE COLLECTION DATE | Use | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 09/01/1999 |
| DEPTH | Cleanup | | 1.5-2.0 | | 1.5-2.0 | | 7.0-7.5 | | 1.5-2.0 | | 0.5-1.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 5 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | -- | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | NA | | NA | | NA | | NA | | 5.75 J |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | 0.43 | -- |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
[2] Criterion developed for trivalent chromium used for comparisons for total chromium results
[3] Ingestion exposure pathway criteria
[4] Inhalation exposure pathway criteria
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1I-1B | | SS-1I-2A | | SS-1I-2B | | SS-1I-3A | | SS-1I-3B |
| LAB ID | Unrestricted Use | | 93486-002 | | 93485-001 | | 93486-003 | | 93486-004 | | 93486-005 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Tertiary Butyl Alcohol | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1I-1B | | SS-1I-2A | | SS-1I-2B | | SS-1I-3A | | SS-1I-3B |
| LAB ID | Unrestricted Use | | 93486-002 | | 93485-001 | | 93486-003 | | 93486-004 | | 93486-005 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | -- | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 120000[2] | | 3.21 J | | 9.5 J | | 6.76 J | | 9.46 J | | 3.7 J |
| Hexavalent Chromium | 240[3]/20[4] | 0.48 | -- | 0.43 | -- | 0.43 | -- | 0.43 | | 0.42 | -- |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
[2] Criterion developed for trivalent chromium used for comparisons for total chromium results
[3] Ingestion exposure pathway criteria
[4] Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1I-4A | | SS-1I-4B |
| LAB ID | Unrestricted Use | | 93486-006 | | 93486-007 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA |
| **Volatile Organic Compounds** | | | | | |
| Acetone | 100 | | NA | | NA |
| Benzene | 1 | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA |
| Bromoform | 1 | | NA | | NA |
| Bromomethane | 1 | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA |
| Chloroethane | NC | | NA | | NA |
| Chloroform | 1 | | NA | | NA |
| Chloromethane | 10 | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA |
| Styrene | 23 | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA |
| Toluene | 500 | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA |
| Methyl Tertiary-Butyl Ether | NC | | NA | | NA |
| Tertiary Butyl Alcohol | NC | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | |
| Phenol | 50 | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA |

TABLE 5 - AOC-1
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-1I-4A | | SS-1I-4B |
| LAB ID | Unrestricted Use | | 93486-006 | | 93486-007 |
| SAMPLE COLLECTION DATE | Soil | | 09/01/1999 | | 09/01/1999 |
| DEPTH | Cleanup | | 0.5-1.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| 1,2-Dichlorobenzene | 50 | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA |
| Isophorone | 50 | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA |
| Naphthalene | 100 | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA |
| Fluorene | 100 | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA |
| Phenanthrene | NC | | NA | | NA |
| Anthracene | 100 | | NA | | NA |
| Carbazole | NC | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA |
| Pyrene | 100 | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA |
| Chrysene | 9 | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | |
| **Metals** | | | | | |
| Total Chromium | 120000[2] | | 7.34 J | | 6.64 J |
| Hexavalent Chromium | 240[3]/20[4] | 0.42 | -- | 0.42 | -- |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
[2] Criterion developed for trivalent chromium used for comparisons for total chromium results
[3] Ingestion exposure pathway criteria
[4] Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-2
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | Unrestricted Use Soil Cleanup Criteria[1] | | AOC-2A | | AOC-2A | | AOC-2A | | AOC-2D | | AOC-2D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-2A-1A | | SS-2A-2A | | SS-2A-3A | | SS-2D-1A | | SS-2D-2A |
| LAB ID | | | 173453 | | 173454 | | 173455 | | 94476-031 | | 94476-032 |
| SAMPLE COLLECTION DATE | | | 12/08/1999 | | 12/08/1999 | | 12/08/1999 | | 11/17/1999 | | 11/17/1999 |
| DEPTH | | | 7.5-8.0 | | 7.5-8.0 | | 6.0-6.5 | | 5.5-6.0 | | 5.0-5.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 27.5 | | 30.1 | | 39.9 | 21 | -- | | 34 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Benzene | 1 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| Bromodichloromethane | 1 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| Bromoform | 1 | 0.480 | -- | 0.450 | -- | 0.520 | -- | | NA | | NA |
| Bromomethane | 1 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| 2-Butanone | 50 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Carbon Disulfide | NC | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Carbon Tetrachloride | 1 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| Chlorobenzene | 1 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Chlorodibromomethane | 1 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Chloroethane | NC | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| Chloroform | 1 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Chloromethane | 10 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| 1,1-Dichloroethane | 10 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 1,2-Dichloroethane | 1 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| 1,1-Dichloroethene | 8 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 1,2-Dichloropropane | 10 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Ethylbenzene | 100 | 0.480 | -- | 0.450 | -- | 0.520 | -- | | NA | | NA |
| 2-Hexanone | NC | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| Methylene Chloride | 1 | 0.360 | -- | 0.340 | -- | 0.390 | -- | | NA | | NA |
| Styrene | 23 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| Tetrachloroethene | 1 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| Toluene | 500 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | 0.360 | -- | 0.340 | -- | 0.390 | -- | | NA | | NA |
| Trichloroethylene | 1 | 0.120 | -- | 0.110 | -- | 0.130 | -- | | NA | | NA |
| Vinyl Chloride | 2 | 0.240 | -- | 0.220 | -- | 0.260 | -- | | NA | | NA |
| Xylenes (Total) | 67 | 0.600 | -- | 0.560 | -- | 0.650 | -- | | NA | | NA |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2-Chlorophenol | 10 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2-Methylphenol | 2800 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Methylphenol | 2800 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2-Nitrophenol | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,4-Dimethylphenol | 10 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,4-Dichlorophenol | 10 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,4-Dinitrophenol | 10 | 3.600 | -- | 1.400 | -- | 1.400 | -- | | NA | | NA |
| 4-Nitrophenol | NC | 3.600 | -- | 1.400 | -- | 1.400 | -- | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | 3.600 | -- | 1.400 | -- | 1.400 | -- | | NA | | NA |
| Pentachlorophenol | 6 | 3.600 | -- | 1.400 | -- | 1.400 | -- | | NA | | NA |

TABLE 5 - AOC-2
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-2A | | AOC-2A | | AOC-2A | | AOC-2D | | AOC-2D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-2A-1A | | SS-2A-2A | | SS-2A-3A | | SS-2D-1A | | SS-2D-2A |
| LAB ID | Use | | 173453 | | 173454 | | 173455 | | 94476-031 | | 94476-032 |
| SAMPLE COLLECTION DATE | Soil | | 12/08/1999 | | 12/08/1999 | | 12/08/1999 | | 11/17/1999 | | 11/17/1999 |
| DEPTH | Cleanup | | 7.5-8.0 | | 7.5-8.0 | | 6.0-6.5 | | 5.5-6.0 | | 5.0-5.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Hexachloroethane | 6 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Nitrobenzene | 10 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Isophorone | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Naphthalene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Chloroaniline | 230 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Hexachlorobutadiene | 1 | 0.180 | -- | 0.070 | -- | 0.071 | -- | | NA | | NA |
| 2-Methylnaphthalene | NC | 0.900 | -- | 0.350 | -- | | 0.0088 | J | NA | | NA |
| Hexachlorocyclopentadiene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2-Chloronaphthalene | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 2-Nitroaniline | NC | 1.800 | -- | 0.700 | -- | 0.710 | -- | | NA | | NA |
| Dimethylphthalate | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Acenaphthylene | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 3-Nitroaniline | NC | 1.800 | -- | 0.700 | -- | 0.710 | -- | | NA | | NA |
| Acenaphthene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Dibenzofuran | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.180 | -- | 0.070 | -- | 0.071 | -- | | NA | | NA |
| Diethylphthalate | 50 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Fluorene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Nitroaniline | NC | 1.800 | -- | 0.700 | -- | 0.710 | -- | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Hexachlorobenzene | 0.66 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Phenanthrene | NC | 0.900 | -- | 0.350 | -- | | 0.011 | J | NA | | NA |
| Anthracene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Carbazole | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Di-n-Butylphthalate | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Fluoranthene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Pyrene | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Butylbenzylphthalate | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | 1.800 | -- | 0.700 | -- | 0.710 | -- | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Chrysene | 9 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Di-n-Octylphthalate | 100 | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | 0.090 | -- | 0.035 | -- | 0.036 | -- | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | 0.900 | -- | 0.350 | -- | 0.360 | -- | | NA | | NA |
| Benzyl Alcohol | 50 | NA | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | NA | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | -- | | 0.380 | | 3.07 | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | -- | | 0.38 | | 3.09 | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 27.5 | | 30.48 | | 42.99 | | -- | | 34 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-2
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-2D | | AOC-2D | | AOC-2D | | AOC-2D |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-2D-3A | | SS-2D-4A | | PX-1 | | PX-2 |
| LAB ID | Use | | 94476-033 | | 94476-034 | | AA99941 | | AA99942 |
| SAMPLE COLLECTION DATE | Soil | | 11/17/1999 | | 11/17/1999 | | 12/21/1999 | | 12/21/1999 |
| DEPTH | Cleanup | | 5.5-6.0 | | 5.5-6.0 | | 5.5-6.0 | | 5.5-6.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 24 | -- | 22 | -- | 36 | -- | 43 | -- |
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-2
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-2D | | AOC-2D | | AOC-2D | | AOC-2D |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-2D-3A | | SS-2D-4A | | PX-1 | | PX-2 |
| LAB ID | Use | | 94476-033 | | 94476-034 | | AA99941 | | AA99942 |
| SAMPLE COLLECTION DATE | Soil | | 11/17/1999 | | 11/17/1999 | | 12/21/1999 | | 12/21/1999 |
| DEPTH | Cleanup | | 5.5-6.0 | | 5.5-6.0 | | 5.5-6.0 | | 5.5-6.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | 10000 | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | -- | | -- |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-5A
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-5A | | AOC-5A | | AOC-5A | | AOC-5A |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-5A-1A | | SS-5A-2A | | SS-5A-3A | | SS-5A-4A |
| LAB ID | Use | | 172272 | | 94549-002 | | 94549-003 | | 172271 |
| SAMPLE COLLECTION DATE | Soil | | 11/30/1999 | | 11/22/1999 | | 11/22/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | 3.5-4.0 | | 3.5-4.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 25.0 | -- | 22 | -- | | 27 | | 321 |

| AREA OF CONCERN | | | AOC-5A | | AOC-5A | | AOC-5A | | AOC-5A |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-5A-5A | | SS-5A-6A | | SS-5A-7A | | SS-5A-8A |
| LAB ID | Unrestricted | | 171031 | | 94519-10 | | 94519-11 | | 171028 |
| SAMPLE COLLECTION DATE | Use | | 94519-009 | | | | | | |
| DEPTH | Soil | | 11/22/1999 | | 11/22/1999 | | 11/22/1999 | | 11/22/1999 |
| MATRIX | Cleanup | | 3.5-4.0 | | 3.5-4.0 | | 3.5-4.0 | | 5.5-6.0 |
| UNITS | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 22 | -- | 21 | -- | | 38 | 25 | -- |

| AREA OF CONCERN | | | AOC-5A | | AOC-5A | | AOC-5A | | AOC-5A |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-5A-9A | | SS-5A-10A | | SS-5A-11A | | SS-5A-12A |
| LAB ID | Unrestricted | | 171019 | | 174355 | | 171023 | | 171022 |
| SAMPLE COLLECTION DATE | Use | | 11/22/1999 | | 11/22/1999 | | 11/18/1999 | | 11/22/1999 |
| DEPTH | Soil | | | | 12/08/1999 | | | | |
| MATRIX | Cleanup | | 3.5-4.0 | | 3.5-4.0 | | 3.5-4.0 | | 2.5-3.0 |
| UNITS | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 25 | -- | | 35.0 | 25 | -- | | 718 |

| AREA OF CONCERN | | | AOC-5A | | AOC-5A | | AOC-5A | | AOC-5A |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-5A-13A | | SS-5A-14A | | SS-5A-15A | | SS-5A-16A |
| LAB ID | Use | | 94508-003 | | 171020 | | 171030 | | 171021 |
| SAMPLE COLLECTION DATE | Soil | | 11/18/1999 | | 11/22/1999 | | 11/22/1999 | | 11/22/1999 |
| DEPTH | Cleanup | | 2.5-3.0 | | 3.5-4.0 | | 3.5-4.0 | | 3.5-4.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 46 | | 25.5 | | 29.5 | | 35.8 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte exceeds Unrestricted Use Criteria

MDL Method Detection Limit

CONC Concentration

Q Qualifier

-- Not Detected

NC No criteria established

TABLE 5 - AOC- 5B-5G
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-5B | | AOC-5B | | AOC-5C | | AOC-5C | | AOC-5C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-5B-1A | | SS-5B-2A | | SS-5C-1A | | SS-5C-1AD* | | SS-5C-2A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 173456 | | 173457 | | 94486-011 993097A-07 | | 94486-014 993097A-10 | | 94476-010 993119B-01 |
| SAMPLE COLLECTION DATE | | | 12/08/1999 | | 12/08/1999 | | 11/17/1999 | | 11/17/1999 | | 11/17/1999 |
| DEPTH | | | 5.5-6.0 | | 3.5-4.0 | | 4.5-5.0 | | 4.5-5.0 | | 4.5-5.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 26.5 | | 55.9 | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 26.5 | | 55.9 | | NA | | NA | | NA |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Chromium | 120000[2] | | NA | | NA | | 10 | | 10.7 | | 10.4 |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | 0.43 | -- J | 0.43 | -- J | 0.45 | -- |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

[3] Ingestion exposure pathway criteria

[4] Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 5B-5G
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-5C | | AOC-5C | | AOC-5C | | AOC-5G |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-5C-5A | | SS-5C-6A | | SS-5C-7A | | SS-5G-1A |
| LAB ID | Unrestricted | | 94486-012 | | 94486-013 | | 171029 | | 94611-001 |
| | Use | | 993097A-08 | | 993097A-09 | | | | |
| SAMPLE COLLECTION DATE | Soil | | 11/17/1999 | | 11/17/1999 | | 11/23/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 4.5-5.0 | | 4.5-5.0 | | 4.5-5.0 | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | 270 |
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | 1.400 | -- |
| Benzene | 1 | | NA | | NA | | NA | 0.740 | -- |
| Bromodichloromethane | 1 | | NA | | NA | | NA | 0.740 | -- |
| Bromoform | 1 | | NA | | NA | | NA | 0.740 | -- |
| Bromomethane | 1 | | NA | | NA | | NA | **1.400** | -- |
| 2-Butanone | 50 | | NA | | NA | | NA | 1.400 | -- |
| Carbon Disulfide | NC | | NA | | NA | | NA | 0.740 | -- |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | 0.740 | -- |
| Chlorobenzene | 1 | | NA | | NA | | NA | 0.740 | -- |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | 0.740 | -- |
| Chloroethane | NC | | NA | | NA | | NA | 1.400 | -- |
| Chloroform | 1 | | NA | | NA | | NA | 0.740 | -- |
| Chloromethane | 10 | | NA | | NA | | NA | 1.400 | -- |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | 0.740 | -- |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | 0.740 | -- |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | 0.740 | -- |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | 0.740 | -- |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | 0.740 | -- |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | 0.740 | -- |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | 0.740 | -- |
| Ethylbenzene | 100 | | NA | | NA | | NA | 0.740 | -- |
| 2-Hexanone | NC | | NA | | NA | | NA | 1.400 | -- |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | 1.400 | -- |
| Methylene Chloride | 1 | | NA | | NA | | NA | 0.740 | -- |
| Styrene | 23 | | NA | | NA | | NA | 0.740 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | 0.740 | -- |
| Tetrachloroethene | 1 | | NA | | NA | | NA | 0.740 | -- |
| Toluene | 500 | | NA | | NA | | NA | 0.740 | -- |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | 0.740 | -- |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | 0.740 | -- |
| Trichloroethylene | 1 | | NA | | NA | | NA | 0.740 | -- |
| Vinyl Chloride | 2 | | NA | | NA | | NA | 1.400 | -- |
| Xylenes (Total) | 67 | | NA | | NA | | NA | 0.740 | -- |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | -- |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | NA | | NA | | NA | | 270 |
| **INORGANIC COMPOUNDS** | | | | | | | | | |
| **Metals** | | | | | | | | | |
| Chromium | 120000[2] | | 5.3 | | 3.6 | | 5.2 | | NA |
| Hexavalent Chromium | 240[3]/20[4] | 0.44 | -- J | 0.43 | -- J | 2.0 | -- | | NA |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

[3] Ingestion exposure pathway criteria

[4] Inhalation exposure pathway criteria

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-6
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-6A | | AOC-6B | | AOC-6B | | AOC-6C | | AOC-6C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-6A-1A | | SS-6B-1A | | SS-6B-2A | | SS-6C-1A | | SS-6C-2A |
| | | | 94462-011 | | | | | | | | |
| LAB ID | Unrestricted | | 94657-001 | | 94462-012 | | 94462-013 | | 94462-014 | | 94462-015 |
| | Use | | 993084A-09 | | 993084A-10 | | 993084A-11 | | 993084A-12 | | 993084A-13 |
| SAMPLE COLLECTION DATE | Soil | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 40 | | 26 | | 39 | 22 | -- | 21 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| Benzene | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Bromodichloromethane | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Bromoform | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Bromomethane | 1 | **1.300** | -- | **1.300** | -- | **1.200** | -- | **1.300** | -- | **1.300** | -- |
| 2-Butanone | 50 | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| Carbon Disulfide | NC | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Carbon Tetrachloride | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Chlorobenzene | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Chlorodibromomethane | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Chloroethane | NC | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| Chloroform | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Chloromethane | 10 | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| 1,1-Dichloroethane | 10 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,2-Dichloroethane | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,1-Dichloroethene | 8 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,2-Dichloropropane | 10 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Ethylbenzene | 100 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 2-Hexanone | NC | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| Methylene Chloride | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Styrene | 23 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Tetrachloroethene | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Toluene | 500 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,1,1-Trichloroethane | 50 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| 1,1,2-Trichloroethane | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Trichloroethylene | 1 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| Vinyl Chloride | 2 | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- | 1.300 | -- |
| Xylenes (Total) | 67 | 0.650 | -- | 0.650 | -- | 0.650 | -- | 0.670 | -- | 0.670 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2-Chlorophenol | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2-Methylphenol | 2800 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 4-Methylphenol | 2800 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2-Nitrophenol | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2,4-Dimethylphenol | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2,4-Dichlorophenol | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2,4,5-Trichlorophenol | 50 | 1.70 | -- | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| 2,4-Dinitrophenol | 10 | 1.70 | -- | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| 4-Nitrophenol | NC | 1.70 | -- | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.70 | -- | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| Pentachlorophenol | 6 | 1.70 | -- | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 1,3-Dichlorobenzene | 100 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 1,4-Dichlorobenzene | 100 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 1,2-Dichlorobenzene | 50 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Hexachloroethane | 6 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Nitrobenzene | 10 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Isophorone | 50 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Naphthalene | 100 | | 0.004 J | 0.35 | -- | | 0.004 J | 0.37 | -- | 0.36 | -- |
| 4-Chloroaniline | 230 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Hexachlorobutadiene | 1 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2-Methylnaphthalene | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Hexachlorocyclopentadiene | 100 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |

TABLE 5 - AOC-6
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-6A | | AOC-6B | | AOC-6B | | AOC-6C | | AOC-6C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-6A-1A | | SS-6B-1A | | SS-6B-2A | | SS-6C-1A | | SS-6C-2A | |
| | | | 94462-011 | | 94462-012 | | 94462-013 | | 94462-014 | | 94462-015 | |
| LAB ID | Unrestricted | | 94657-001 | | 993084A-10 | | 993084A-11 | | 993084A-12 | | 993084A-13 | |
| | Use | | 993084A-09 | | | | | | | | | |
| SAMPLE COLLECTION DATE | Soil | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | |
| | | MDL | | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| 2-Chloronaphthalene | NC | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 2-Nitroaniline | NC | 1.70 | -- | | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| Dimethylphthalate | 50 | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Acenaphthylene | NC | 0.35 | -- | | 0.35 | -- | | 0.016 J | 0.37 | -- | 0.36 | -- |
| 3-Nitroaniline | NC | 1.70 | -- | | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| Acenaphthene | 100 | 0.35 | -- | | 0.35 | -- | | 0.012 J | 0.37 | -- | 0.36 | -- |
| Dibenzofuran | NC | 0.35 | -- | | 0.35 | -- | | 0.008 J | 0.37 | -- | 0.36 | -- |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Diethylphthalate | 50 | | 0.004 J | | | 0.005 J | | 0.004 J | | 0.005 J | | 0.004 J |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Fluorene | 100 | 0.35 | -- | | 0.35 | -- | | 0.013 J | 0.37 | -- | 0.36 | -- |
| 4-Nitroaniline | NC | 1.70 | -- | | 1.68 | -- | 1.68 | -- | 1.78 | -- | 1.74 | -- |
| N-Nitrosodiphenylamine (1) | NC | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| 4-Bromophenyl-Phenylether | NC | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Hexachlorobenzene | 0.66 | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Phenanthrene | NC | | 0.028 J | | 0.35 | -- | | 0.31 J | 0.37 | -- | 0.36 | -- |
| Anthracene | 100 | | 0.004 J | | 0.35 | -- | | 0.035 J | 0.37 | -- | 0.36 | -- |
| Carbazole | NC | | 0.006 J | | 0.35 | -- | | 0.042 J | 0.37 | -- | 0.36 | -- |
| Di-n-Butylphthalate | 100 | | 0.029 JB | | | 0.026 JB | | 0.045 JB | | 0.04 JB | | 0.02 JB |
| Fluoranthene | 100 | | 0.065 J | | | 0.013 J | | 0.59 J | | 0.007 J | | 0.008 J |
| Pyrene | 100 | | 0.057 J | | | 0.012 J | | 0.51 | | 0.005 J | | 0.006 J |
| Butylbenzylphthalate | 100 | 0.35 | -- | | 0.35 | -- | | 0.009 J | | -- | | -- |
| 3,3'-Dichlorobenzidine | 2 | 0.70 | -- | | 0.69 | -- | 0.69 | -- | 0.73 | -- | 0.72 | -- |
| Benzo(a)Anthracene | 0.9 | | 0.027 J | | | 0.008 J | | 0.260 J | 0.37 | -- | 0.36 | -- |
| Chrysene | 9 | | 0.040 J | | | 0.009 J | | 0.330 J | 0.37 | -- | 0.36 | -- |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.100 JB | | | 0.082 JB | | 0.190 JB | | 0.064 JB | | 0.029 JB |
| Di-n-Octylphthalate | 100 | | 0.008 JB | | | 0.008 JB | | 0.009 JB | | 0.007 JB | | 0.008 JB |
| Benzo(b)Fluoranthene | 0.9 | | 0.041 J | | | 0.008 J | | 0.250 J | 0.37 | -- | 0.36 | -- |
| Benzo(k)Fluoranthene | 0.9 | | 0.047 J | | | 0.008 J | | 0.330 J | 0.37 | -- | 0.36 | -- |
| Benzo(a)Pyrene | 0.66 | | 0.036 J | | | 0.008 J | | 0.280 J | 0.37 | -- | 0.36 | -- |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | 0.036 J | | | 0.007 J | | 0.180 J | 0.37 | -- | 0.36 | -- |
| Dibenzo(a,h)Anthracene | 0.66 | | 0.011 J | | 0.35 | NA | | 0.060 J | 0.37 | -- | 0.36 | -- |
| Benzo(g,h,i)Perylene | NC | | 0.037 J | | | 0.008 J | | 0.190 J | 0.37 | -- | 0.36 | -- |
| Benzyl Alcohol | 50 | 0.35 | -- | | 0.35 | -- | 0.35 | -- | 0.37 | -- | 0.36 | -- |
| Benzoic Acid | NC | | 0.016 J | | 1.68 | -- | | 0.013 J | | 0.013 J | 1.74 | -- |
| **Total Non-Target SVOCs** | NC | | 15.46 JB | | | 15.16 JB | | 10.21 JB | | 14.12 JB | | 8.51 JB |
| **Total Semi-Volatile Organic Compounds** | 10000 | | 16.06 | | | 15.36 | | 13.90 | | 14.26 | | 8.58 |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1221 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1232 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1242 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1248 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1254 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1260 | NC | 0.0347 | -- | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1262 | NC | | NA | | | NA | 0.0351 | -- | | NA | | NA |
| Aroclor-1268 | NC | | NA | | | NA | 0.0351 | -- | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | | NA | | -- | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 56.06 | | | 41.36 | | 52.90 | | 14.26 | | 8.58 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | |
| Antimony | 14 | | 0.284 J | | | NA | 12.6 | -- | | NA | | NA |
| Arsenic | 20 | | 1.33 J | | | NA | 2.1 | -- | | NA | | NA |
| Beryllium | 2 | | N | | | NA | 1.0 | -- | | NA | | NA |
| Cadmium | 39 | | 1.44 J | | | NA | 1.0 | -- | | NA | | NA |
| Chromium | 120000[2] | | 3.37 J | | | NA | | 9.7 | | NA | | NA |
| Copper | 600 | | 5.93 | | | NA | | 5.5 | | NA | | NA |
| Iron | NC | | NA | | | NA | | 5180 | | NA | | NA |
| Lead | 400 | | 4.94 J | | | NA | | 4.2 | | NA | | NA |
| Mercury | 14 | 0.0351 | -- J | | | NA | | 0.020 | | NA | | NA |
| Nickel | 250 | | 2.06 J | | | NA | 8.4 | -- | | NA | | NA |
| Selenium | 63 | 0.445 | -- J | | | NA | 1.0 | -- | | NA | | NA |
| Silver | 110 | 0.0708 | -- J | | | NA | 2.1 | -- | | NA | | NA |
| Thallium | 2 | | 0.339 J | | | NA | **2.1** | -- | | NA | | NA |
| Zinc | 1500 | | 406 J | | | NA | | 33.0 | | NA | | NA |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
NC No criteria established
NA Not analyzed
N Negated by data validation

TABLE 5 - AOC-8
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | Unrestricted Use Cleanup Criteria[1] | | AOC-8B | | AOC-8B |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-8B-1A | | SS-8B-2A |
| LAB ID | | | 172946 | | 172947 |
| SAMPLE COLLECTION DATE | | | 12/03/1999 | | 12/03/1999 |
| DEPTH | | | 0.0-2.0 | | 0.0-2.0 |
| MATRIX | | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 49.2 | | 44.8 |
| **Volatile Organic Compounds** | | | | | |
| Acetone | 100 | 0.680 | -- | 0.690 | -- |
| Benzene | 1 | 0.140 | -- | 0.140 | -- |
| Bromodichloromethane | 1 | 0.140 | -- | 0.140 | -- |
| Bromoform | 1 | 0.550 | -- | 0.550 | -- |
| Bromomethane | 1 | 0.270 | -- | 0.280 | -- |
| 2-Butanone | 50 | 0.680 | -- | 0.690 | -- |
| Carbon Disulfide | NC | 0.680 | -- | 0.690 | -- |
| Carbon Tetrachloride | 1 | 0.270 | -- | 0.280 | -- |
| Chlorobenzene | 1 | 0.680 | -- | 0.690 | -- |
| Chlorodibromomethane | 1 | 0.680 | -- | 0.690 | -- |
| Chloroethane | NC | 0.270 | -- | 0.280 | -- |
| Chloroform | 1 | 0.680 | -- | 0.690 | -- |
| Chloromethane | 10 | 0.270 | -- | 0.280 | -- |
| 1,1-Dichloroethane | 10 | 0.680 | -- | 0.690 | -- |
| 1,2-Dichloroethane | 1 | 0.270 | -- | 0.280 | -- |
| 1,1-Dichloroethene | 8 | 0.270 | -- | 0.280 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.680 | -- | 0.690 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.680 | -- | 0.690 | -- |
| 1,2-Dichloropropane | 10 | 0.140 | -- | 0.140 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.680 | -- | 0.690 | -- |
| Ethylbenzene | 100 | 0.550 | -- | 0.550 | -- |
| 2-Hexanone | NC | 0.680 | -- | 0.690 | -- |
| 4-Methyl-2-Pentanone | 50 | 0.680 | -- | 0.690 | -- |
| Methylene Chloride | 1 | 0.410 | -- | 0.420 | -- |
| Styrene | 23 | 0.680 | -- | 0.690 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.140 | -- | 0.140 | -- |
| Tetrachloroethene | 1 | 0.140 | -- | 0.140 | -- |
| Toluene | 500 | 0.680 | -- | 0.690 | -- |
| 1,1,1-Trichloroethane | 50 | 0.680 | -- | 0.690 | -- |
| 1,1,2-Trichloroethane | 1 | 0.410 | -- | 0.420 | -- |
| Trichloroethylene | 1 | 0.140 | -- | 0.140 | -- |
| Vinyl Chloride | 2 | 0.270 | -- | 0.280 | -- |
| Xylenes (Total) | 67 | 0.680 | -- | 0.690 | -- |
| **Total Non-Target VOCs** | NC | | 0.830 | | -- |
| **Total Volatile Organic Compounds** | 1000 | | 0.83 | | -- |
| **Semi-Volatile Organic Compounds** | | | | | |
| Phenol | 50 | 0.360 | -- | 0.370 | -- |
| 2-Chlorophenol | 10 | 0.360 | -- | 0.370 | -- |
| 2-Methylphenol | 2800 | 0.360 | -- | 0.370 | -- |
| 4-Methylphenol | 2800 | 0.360 | -- | 0.370 | -- |
| 2-Nitrophenol | NC | 0.360 | -- | 0.370 | -- |
| 2,4-Dimethylphenol | 10 | 0.360 | -- | 0.370 | -- |
| 2,4-Dichlorophenol | 10 | 0.360 | -- | 0.370 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.360 | -- | 0.370 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.360 | -- | 0.370 | -- |
| 2,4,5-Trichlorophenol | 50 | 0.360 | -- | 0.370 | -- |
| 2,4-Dinitrophenol | 10 | 1.400 | -- | 1.500 | -- |
| 4-Nitrophenol | NC | 1.400 | -- | 1.500 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.400 | -- | 1.500 | -- |
| Pentachlorophenol | 6 | 1.400 | -- | 1.500 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.036 | -- | 0.037 | -- |
| 1,3-Dichlorobenzene | 100 | 0.360 | -- | 0.370 | -- |
| 1,4-Dichlorobenzene | 100 | 0.360 | -- | 0.370 | -- |
| 1,2-Dichlorobenzene | 50 | 0.360 | -- | 0.370 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.360 | -- | 0.370 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.036 | -- | 0.037 | -- |
| Hexachloroethane | 6 | 0.036 | -- | 0.037 | -- |
| Nitrobenzene | 10 | 0.036 | -- | 0.037 | -- |
| Isophorone | 50 | 0.360 | -- | 0.370 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.360 | -- | 0.370 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.036 | -- | 0.037 | -- |
| Naphthalene | 100 | 0.360 | -- | 0.370 | -- |
| 4-Chloroaniline | 230 | 0.360 | -- | 0.370 | -- |
| Hexachlorobutadiene | 1 | 0.073 | -- | 0.074 | -- |

TABLE 5 - AOC-8
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-8B | | | AOC-8B |
|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-8B-1A | | | SS-8B-2A |
| LAB ID | Use | | 172946 | | | 172947 |
| SAMPLE COLLECTION DATE | Soil | | 12/03/1999 | | | 12/03/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | | SOIL |
| UNITS | mg/kg | MDL | mg/kg | Q | MDL | mg/kg | Q |
| 2-Methylnaphthalene | NC | 0.360 | -- | | 0.370 | -- | |
| Hexachlorocyclopentadiene | 100 | 0.360 | -- | | 0.370 | -- | |
| 2-Chloronaphthalene | NC | 0.360 | -- | | 0.370 | -- | |
| 2-Nitroaniline | NC | 0.730 | -- | | 0.740 | -- | |
| Dimethylphthalate | 50 | 0.360 | -- | | 0.370 | -- | |
| Acenaphthylene | NC | 0.360 | -- | | 0.370 | -- | |
| 3-Nitroaniline | NC | 0.730 | -- | | 0.740 | -- | |
| Acenaphthene | 100 | 0.360 | -- | | 0.370 | -- | |
| Dibenzofuran | NC | 0.360 | -- | | 0.370 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.073 | -- | | 0.074 | -- | |
| Diethylphthalate | 50 | 0.360 | -- | | 0.370 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.360 | -- | | 0.370 | -- | |
| Fluorene | 100 | 0.360 | -- | | 0.370 | -- | |
| 4-Nitroaniline | NC | 0.730 | -- | | 0.740 | -- | |
| N-Nitrosodiphenylamine (1) | NC | 0.360 | -- | | 0.370 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.360 | -- | | 0.370 | -- | |
| Hexachlorobenzene | 0.66 | 0.036 | -- | | 0.037 | -- | |
| Phenanthrene | NC | | 0.009 | J | | 0.11 | J |
| Anthracene | 100 | 0.360 | -- | | 0.370 | -- | |
| Carbazole | NC | 0.360 | -- | | 0.370 | -- | |
| Di-n-Butylphthalate | 100 | 0.360 | -- | | 0.370 | -- | |
| Fluoranthene | 100 | | 0.018 | J | | 0.022 | J |
| Pyrene | 100 | | 0.017 | J | | 0.026 | J |
| Butylbenzylphthalate | 100 | | 2.700 | | 0.370 | -- | |
| 3,3'-Dichlorobenzidine | 2 | 0.730 | -- | | 0.740 | -- | |
| Benzo(a)Anthracene | 0.9 | 0.036 | -- | | | 0.028 | J |
| Chrysene | 9 | | 0.0099 | J | | 0.017 | J |
| Bis(2-Ethylhexyl)Phthalate | 49 | 0.360 | -- | | 0.370 | -- | |
| Di-n-Octylphthalate | 100 | 0.360 | -- | | 0.370 | -- | |
| Benzo(b)Fluoranthene | 0.9 | | 0.011 | J | | 0.017 | J |
| Benzo(k)Fluoranthene | 0.9 | 0.036 | -- | | | 0.012 | J |
| Benzo(a)Pyrene | 0.66 | 0.036 | -- | | | 0.013 | J |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.036 | -- | | 0.037 | -- | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.036 | -- | | 0.037 | -- | |
| Benzo(g,h,i)Perylene | NC | 0.360 | -- | | 0.370 | -- | |
| Benzyl Alcohol | 50 | | NA | | | NA | |
| Benzoic Acid | NC | | NA | | | NA | |
| **Total Non-Target SVOCs** | NC | | -- | | | -- | |
| **Total Semi-Volatile Organic Compounds** | 10000 | | 2.76 | | | 0.25 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | |
| Aroclor-1016 | NC | 0.073 | -- | | | NA | |
| Aroclor-1221 | NC | 0.073 | -- | | | NA | |
| Aroclor-1232 | NC | 0.073 | -- | | | NA | |
| Aroclor-1242 | NC | 0.073 | -- | | | NA | |
| Aroclor-1248 | NC | 0.073 | -- | | | NA | |
| Aroclor-1254 | NC | 0.073 | -- | | | NA | |
| Aroclor-1260 | NC | 0.073 | -- | | | NA | |
| Aroclor-1262 | NC | 0.073 | -- | | | NA | |
| Aroclor-1268 | NC | 0.073 | -- | | | NA | |
| **Total PCBs** | 0.49 | | -- | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 52.79 | | | 45.05 | |
| **INORGANIC COMPOUNDS** | | | | | | | |
| **Metals** | | | | | | | |
| Antimony | 14 | 1.3 | -- | | | NA | |
| Arsenic | 20 | | 0.89 | J | | NA | |
| Beryllium | 2 | 0.066 | -- | | | NA | |
| Cadmium | 39 | 0.088 | -- | | | NA | |
| Chromium | 120000[2] | | 4.7 | | | NA | |
| Copper | 600 | | 3.5 | J | | NA | |
| Iron | NC | | NA | | | NA | |
| Lead | 400 | | 3.3 | | | NA | |
| Mercury | 14 | 0.018 | -- | | | NA | |
| Nickel | 250 | | 1.2 | J | | NA | |
| Selenium | 63 | 0.92 | -- | | | NA | |
| Silver | 110 | 0.31 | -- | | | NA | |
| Thallium | 2 | 1.0 | -- | | | NA | |
| Zinc | 1500 | | 5.7 | J | | NA | |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-11
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-11A | | AOC-11A |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-11A-1A | | SS-11A-2A |
| LAB ID | Use | | 171026 | | 171027 |
| SAMPLE COLLECTION DATE | Soil | | 11/22/1999 | | 11/22/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 27.5 | | 30.0 |
| **Volatile Organic Compounds** | | | | | |
| Acetone | 100 | 0.570 | -- | 0.540 | -- |
| Benzene | 1 | 0.110 | -- | 0.110 | -- |
| Bromodichloromethane | 1 | 0.110 | -- | 0.110 | -- |
| Bromoform | 1 | 0.460 | -- | 0.440 | -- |
| Bromomethane | 1 | 0.230 | -- | 0.220 | -- |
| 2-Butanone | 50 | 0.570 | -- | 0.540 | -- |
| Carbon Disulfide | NC | 0.570 | -- | 0.540 | -- |
| Carbon Tetrachloride | 1 | 0.230 | -- | 0.220 | -- |
| Chlorobenzene | 1 | 0.570 | -- | 0.540 | -- |
| Chlorodibromomethane | 1 | 0.570 | -- | 0.540 | -- |
| Chloroethane | NC | 0.230 | -- | 0.220 | -- |
| Chloroform | 1 | 0.570 | -- | 0.540 | -- |
| Chloromethane | 10 | 0.230 | -- | 0.220 | -- |
| 1,1-Dichloroethane | 10 | 0.570 | -- | 0.540 | -- |
| 1,2-Dichloroethane | 1 | 0.230 | -- | 0.220 | -- |
| 1,1-Dichloroethene | 8 | 0.230 | -- | 0.220 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.570 | -- | 0.540 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.570 | -- | 0.540 | -- |
| 1,2-Dichloropropane | 10 | 0.110 | -- | 0.110 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.570 | -- | 0.540 | -- |
| Ethylbenzene | 100 | 0.460 | -- | 0.440 | -- |
| 2-Hexanone | NC | 0.570 | -- | 0.540 | -- |
| 4-Methyl-2-Pentanone | 50 | 0.570 | -- | 0.540 | -- |
| Methylene Chloride | 1 | 0.340 | -- | 0.330 | -- |
| Styrene | 23 | 0.570 | -- | 0.540 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.110 | -- | 0.110 | -- |
| Tetrachloroethene | 1 | 0.110 | -- | 0.110 | -- |
| Toluene | 500 | 0.570 | -- | 0.540 | -- |
| 1,1,1-Trichloroethane | 50 | 0.570 | -- | 0.540 | -- |
| 1,1,2-Trichloroethane | 1 | 0.340 | -- | 0.330 | -- |
| Trichloroethylene | 1 | 0.110 | -- | 0.110 | -- |
| Vinyl Chloride | 2 | 0.230 | -- | 0.220 | -- |
| Xylenes (Total) | 67 | 0.570 | -- | 0.540 | -- |
| **Total Non-Target VOCs** | NC | | -- | | 0.760 |
| **Total Volatile Organic Compounds** | 1000 | | -- | | 0.76 |
| **Semi-Volatile Organic Compounds** | | | | | |
| Phenol | 50 | 0.350 | -- | 0.340 | -- |
| 2-Chlorophenol | 10 | 0.350 | -- | 0.340 | -- |
| 2-Methylphenol | 2800 | 0.350 | -- | 0.340 | -- |
| 4-Methylphenol | 2800 | 0.350 | -- | 0.340 | -- |
| 2-Nitrophenol | NC | 0.350 | -- | 0.340 | -- |
| 2,4-Dimethylphenol | 10 | 0.350 | -- | 0.340 | -- |
| 2,4-Dichlorophenol | 10 | 0.350 | -- | 0.340 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.350 | -- | 0.340 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.350 | -- | 0.340 | -- |
| 2,4,5-Trichlorophenol | 50 | 0.350 | -- | 0.340 | -- |
| 2,4-Dinitrophenol | 10 | 1.400 | -- | 1.400 | -- |
| 4-Nitrophenol | NC | 1.400 | -- | 1.400 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.400 | -- | 1.400 | -- |
| Pentachlorophenol | 6 | 1.400 | -- | 1.400 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.035 | -- | 0.034 | -- |
| 1,3-Dichlorobenzene | 100 | 0.350 | -- | 0.340 | -- |
| 1,4-Dichlorobenzene | 100 | 0.350 | -- | 0.340 | -- |
| 1,2-Dichlorobenzene | 50 | 0.350 | -- | 0.340 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.350 | -- | 0.340 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.035 | -- | 0.034 | -- |
| Hexachloroethane | 6 | 0.035 | -- | 0.034 | -- |
| Nitrobenzene | 10 | 0.035 | -- | 0.034 | -- |
| Isophorone | 50 | 0.350 | -- | 0.340 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.350 | -- | 0.340 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.035 | -- | 0.034 | -- |
| Naphthalene | 100 | 0.350 | -- | 0.340 | -- |
| 4-Chloroaniline | 230 | 0.350 | -- | 0.340 | -- |
| Hexachlorobutadiene | 1 | 0.069 | -- | 0.068 | -- |

TABLE 5 - AOC-11
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-11A | | AOC-11A | |
|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-11A-1A | | SS-11A-2A | |
| LAB ID | Use | | 171026 | | 171027 | |
| SAMPLE COLLECTION DATE | Soil | | 11/22/1999 | | 11/22/1999 | |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | |
| MATRIX | Criteria[1] | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg | Q |
| 2-Methylnaphthalene | NC | 0.350 | -- | 0.340 | -- | |
| Hexachlorocyclopentadiene | 100 | 0.350 | -- | 0.340 | -- | |
| 2-Chloronaphthalene | NC | 0.350 | -- | 0.340 | -- | |
| 2-Nitroaniline | NC | 0.690 | -- | 0.680 | -- | |
| Dimethylphthalate | 50 | 0.350 | -- | 0.340 | -- | |
| Acenaphthylene | NC | 0.350 | -- | 0.340 | -- | |
| 3-Nitroaniline | NC | 0.690 | -- | 0.680 | -- | |
| Acenaphthene | 100 | 0.350 | -- | 0.340 | -- | |
| Dibenzofuran | NC | 0.350 | -- | 0.340 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.069 | -- | 0.068 | -- | |
| Diethylphthalate | 50 | 0.350 | -- | 0.340 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.350 | -- | 0.340 | -- | |
| Fluorene | 100 | 0.350 | -- | 0.340 | -- | |
| 4-Nitroaniline | NC | 0.690 | -- | 0.680 | -- | |
| N-Nitrosodiphenylamine (1) | NC | 0.350 | -- | 0.340 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.350 | -- | 0.340 | -- | |
| Hexachlorobenzene | 0.66 | 0.035 | -- | 0.034 | -- | |
| Phenanthrene | NC | 0.350 | -- | 0.340 | -- | |
| Anthracene | 100 | 0.350 | -- | 0.340 | -- | |
| Carbazole | NC | 0.350 | -- | 0.340 | -- | |
| Di-n-Butylphthalate | 100 | 0.350 | -- | 0.340 | -- | |
| Fluoranthene | 100 | | 0.014 J | 0.340 | -- | |
| Pyrene | 100 | | 0.014 J | 0.340 | -- | |
| Butylbenzylphthalate | 100 | 0.350 | -- | 0.340 | -- | |
| 3,3'-Dichlorobenzidine | 2 | 0.690 | -- | 0.680 | -- | |
| Benzo(a)Anthracene | 0.9 | 0.035 | -- | 0.034 | -- | |
| Chrysene | 9 | 0.350 | -- | 0.340 | -- | |
| Bis(2-Ethylhexyl)Phthalate | 49 | 0.350 | -- | 0.340 | -- | |
| Di-n-Octylphthalate | 100 | 0.350 | -- | 0.340 | -- | |
| Benzo(b)Fluoranthene | 0.9 | 0.035 | -- | 0.034 | -- | |
| Benzo(k)Fluoranthene | 0.9 | 0.035 | -- | 0.034 | -- | |
| Benzo(a)Pyrene | 0.66 | 0.035 | -- | 0.034 | -- | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.035 | -- | 0.034 | -- | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.035 | -- | 0.034 | -- | |
| Benzo(g,h,i)Perylene | NC | 0.350 | -- | 0.340 | -- | |
| Benzyl Alcohol | 50 | | NA | | NA | |
| Benzoic Acid | NC | | NA | | NA | |
| **Total Non-Target SVOCs** | NC | | -- | | -- | |
| **Total Semi-Volatile Organic Compounds** | 10000 | | 0.028 | | -- | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | |
| Aroclor-1016 | NC | | NA | 0.069 | -- | |
| Aroclor-1221 | NC | | NA | 0.069 | -- | |
| Aroclor-1232 | NC | | NA | 0.069 | -- | |
| Aroclor-1242 | NC | | NA | 0.069 | -- | |
| Aroclor-1248 | NC | | NA | 0.069 | -- | |
| Aroclor-1254 | NC | | NA | 0.069 | -- | |
| Aroclor-1260 | NC | | NA | 0.069 | -- | |
| Aroclor-1262 | NC | | NA | 0.069 | -- | |
| Aroclor-1268 | NC | | NA | 0.069 | -- | |
| **Total PCBs** | 0.49 | | NA | | -- | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 27.53 | | 30.76 | |
| **INORGANIC COMPOUNDS** | | | | | | |
| **Metals** | | | | | | |
| Antimony | 14 | | NA | 1.2 | -- | |
| Arsenic | 20 | | NA | 0.66 | -- | |
| Beryllium | 2 | | NA | 0.062 | -- | |
| Cadmium | 39 | | NA | 0.082 | -- | |
| Chromium | 120000[2] | | NA | | 1.1 | J |
| Copper | 600 | | NA | | 1.0 | J |
| Iron | NC | | NA | | NA | |
| Lead | 400 | | NA | | 0.97 | J |
| Mercury | 14 | | NA | 0.017 | -- | |
| Nickel | 250 | | NA | | 0.50 | J |
| Selenium | 63 | | NA | 0.86 | -- | |
| Silver | 110 | | NA | 0.29 | -- | |
| Thallium | 2 | | NA | 0.97 | -- | |
| Zinc | 1500 | | NA | | 1.5 | J |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN / URSGWC SAMPLE NO. | | | AOC-14A SS-14A-1A | | AOC-14A SS-14A-2A | | AOC-14A SS-14A-3A | | AOC-14A SS-14A-4A | | AOC-14A SS-14A-5A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | Unrestricted Use | | 171783 | | 171784 | | 174823 | | 174824 | | 172270 |
| SAMPLE COLLECTION DATE | Soil | | 11/29/1999 | | 11/29/1999 | | 12/13/1999 | | 12/13/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 15.0-15.5 | | 15.5-16.0 | | 17.5-18.0 | | 13.5-14.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | 57.1 | | 51.8 | 25.0 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Benzene | 1 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| Bromodichloromethane | 1 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| Bromoform | 1 | 0.550 | -- | 0.500 | -- | 0.540 | -- | 0.740 | -- | 0.640 | -- |
| Bromomethane | 1 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| 2-Butanone | 50 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Carbon Disulfide | NC | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Carbon Tetrachloride | 1 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| Chlorobenzene | 1 | 0.680 | -- | 0.620 | -- | 0.670 | -- | | 1.6 | 0.790 | -- |
| Chlorodibromomethane | 1 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Chloroethane | NC | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| Chloroform | 1 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Chloromethane | 10 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| 1,1-Dichloroethane | 10 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 1,2-Dichloroethane | 1 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| 1,1-Dichloroethene | 8 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 1,2-Dichloropropane | 10 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Ethylbenzene | 100 | 0.550 | -- | 0.500 | -- | 0.540 | -- | 0.740 | -- | 0.640 | -- |
| 2-Hexanone | NC | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 4-Methyl-2-Pentanone | 50 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| Methylene Chloride | 1 | 0.410 | -- | 0.370 | -- | 0.400 | -- | 0.560 | -- | 0.480 | -- |
| Styrene | 23 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| Tetrachloroethene | 1 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| Toluene | 500 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 1,1,1-Trichloroethane | 50 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| 1,1,2-Trichloroethane | 1 | 0.410 | -- | 0.370 | -- | 0.400 | -- | 0.560 | -- | 0.480 | -- |
| Trichloroethylene | 1 | 0.140 | -- | 0.120 | -- | 0.130 | -- | 0.180 | -- | 0.160 | -- |
| Vinyl Chloride | 2 | 0.270 | -- | 0.250 | -- | 0.270 | -- | 0.370 | -- | 0.320 | -- |
| Xylenes (Total) | 67 | 0.680 | -- | 0.620 | -- | 0.670 | -- | 0.930 | -- | 0.790 | -- |
| **Total Non-Target VOCs** | NC | | 1.300 | | 1.600 | | -- | | -- | | 1.400 |
| **Total Volatile Organic Compounds** | 1000 | | 1.3 | | 1.6 | | -- | | 1.6 | | 1.4 |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2-Nitrophenol | NC | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | 0.380 | -- | 0.360 | -- | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | 1.500 | -- | 1.500 | -- | | NA | | NA | | NA |
| 4-Nitrophenol | NC | 1.500 | -- | 1.500 | -- | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | 1.500 | -- | 1.500 | -- | | NA | | NA | | NA |
| Pentachlorophenol | 6 | 1.500 | -- | 1.500 | -- | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| 1,3-Dichlorobenzene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 1,4-Dichlorobenzene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.044 J | | NA |
| 1,2-Dichlorobenzene | 50 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Hexachloroethane | 6 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Nitrobenzene | 10 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Isophorone | 50 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Bis(2-Chloroethoxy) Methane | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 1,2,4-Trichlorobenzene | 68 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Naphthalene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.120 J | | NA |
| 4-Chloroaniline | 230 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Hexachlorobutadiene | 1 | 0.076 | -- | 0.073 | -- | 0.073 | -- | 0.082 | -- | | NA |
| 2-Methylnaphthalene | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.017 J | | NA |

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-14A | | AOC-14A | | AOC-14A | | AOC-14A | | AOC-14A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-14A-1A | | SS-14A-2A | | SS-14A-3A | | SS-14A-4A | | SS-14A-5A |
| LAB ID | Unrestricted Use | | 171783 | | 171784 | | 174823 | | 174824 | | 172270 |
| SAMPLE COLLECTION DATE | Soil | | 11/29/1999 | | 11/29/1999 | | 12/13/1999 | | 12/13/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 15.0-15.5 | | 15.5-16.0 | | 17.5-18.0 | | 13.5-14.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| Hexachlorocyclopentadiene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 2-Chloronaphthalene | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 2-Nitroaniline | NC | 0.760 | -- | 0.730 | -- | 0.730 | -- | 0.820 | -- | | NA |
| Dimethylphthalate | 50 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Acenaphthylene | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.070 J | | NA |
| 3-Nitroaniline | NC | 0.760 | -- | 0.730 | -- | 0.730 | -- | 0.820 | -- | | NA |
| Acenaphthene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.050 J | | NA |
| Dibenzofuran | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.025 J | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.076 | -- | 0.073 | -- | 0.073 | -- | 0.082 | -- | | NA |
| Diethylphthalate | 50 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Fluorene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.061 J | | NA |
| 4-Nitroaniline | NC | 0.760 | -- | 0.730 | -- | 0.730 | -- | 0.820 | -- | | NA |
| N-Nitrosodiphenylamine (1) | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 4-Bromophenyl-Phenylether | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Hexachlorobenzene | 0.66 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Phenanthrene | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 1.2 | | NA |
| Anthracene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.14 J | | NA |
| Carbazole | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.078 J | | NA |
| Di-n-Butylphthalate | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Fluoranthene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 3.4 | | NA |
| Pyrene | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 2.500 | | NA |
| Butylbenzylphthalate | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| 3,3'-Dichlorobenzidine | 2 | 0.760 | -- | 0.730 | -- | 0.730 | -- | 0.820 | -- | | NA |
| Benzo(a)Anthracene | 0.9 | 0.038 | -- | 0.036 | -- | 0.037 | -- | | 0.220 | | NA |
| Chrysene | 9 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.890 | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.091 J | | NA |
| Di-n-Octylphthalate | 100 | 0.380 | -- | 0.360 | -- | 0.370 | -- | 0.410 | -- | | NA |
| Benzo(b)Fluoranthene | 0.9 | 0.038 | -- | 0.036 | -- | 0.037 | -- | | 0.560 | | NA |
| Benzo(k)Fluoranthene | 0.9 | 0.038 | -- | 0.036 | -- | 0.037 | -- | | 0.200 | | NA |
| Benzo(a)Pyrene | 0.66 | 0.038 | -- | 0.036 | -- | 0.037 | -- | | 0.130 | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.038 | -- | 0.036 | -- | 0.037 | -- | | 0.120 | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | 0.038 | -- | 0.036 | -- | 0.037 | -- | 0.041 | -- | | NA |
| Benzo(g,h,i)Perylene | NC | 0.380 | -- | 0.360 | -- | 0.370 | -- | | 0.110 J | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | 3.220 | | 2.930 | | -- | | 2.46 J | | NA |
| **Total Semi-Volatile Organic Compounds** | NC | | 3.22 | | 2.93 | | -- | | 12.49 | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1221 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1232 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1242 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1248 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1254 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1260 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1262 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| Aroclor-1268 | NC | 0.077 | -- | 0.073 | -- | 0.074 | -- | 0.082 | -- | 0.078 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 4.52 | | 4.53 | | 57.1 | | 65.886 | | 1.4 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | 14 | 1.3 | -- | 1.3 | -- | 1.3 | -- | 1.4 | -- | | NA |
| Arsenic | 20 | | 2.6 | | 1.4 | | 1.0 J | 0.79 | -- | | NA |
| Beryllium | 2 | 0.069 | -- | 0.066 | -- | 0.066 | -- | 0.074 | -- | | NA |
| Cadmium | 39 | 0.092 | -- | 0.088 | -- | 0.088 | -- | 0.098 | -- | | NA |
| Chromium | 120000[2] | | 8.4 | | 6.0 | | 4.0 | | 5.3 | | NA |
| Copper | 600 | | 4.4 J | | 1.4 J | | 1.3 J | | 8.1 | | NA |
| Iron | NC | | NA | | NA | | NA | | NA | | NA |
| Lead | 400 | | 4.9 | | 2.8 | | 3.0 | | 8.4 | | NA |
| Mercury | 14 | | 0.02 J | | 0.02 J | 0.018 | -- | | 0.06 | | NA |
| Nickel | 250 | | 0.40 J | | 0.97 J | | 0.70 J | | 3.4 J | | NA |
| Selenium | 63 | 0.96 | -- | 0.92 | -- | 0.92 | -- | 1.0 | -- | | NA |
| Silver | 110 | 0.32 | -- | 0.31 | -- | 0.31 | -- | 0.34 | -- | | NA |
| Thallium | 2 | 1.1 | -- | 1.0 | -- | 1.0 | -- | 1.20 | -- | | NA |
| Zinc | 1500 | | 4.0 J | | 2.4 J | | 4.1 J | | 26.8 | | NA |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
N Negated by data validation
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-14B | | AOC-14B | | AOC-14B | | AOC-14B | | AOC-14B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-14B-1A | | SS-14B-2A | | SS-14B-3A | | SS-14B-4A | | SS-14B-5A |
| | | | 94508-026 | | 94508-027 | | 94508-028 | | 94508-029 | | 94508-030 |
| LAB ID | Unrestricted Use | | 993125A-04 | | 993125A-05 | | 993125A-06 | | 993125A-07 | | 993125A-08 |
| | | | | | | | | | | | 00066-004 |
| SAMPLE COLLECTION DATE | Soil | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 |
| DEPTH | Cleanup | | 10.5-11.0 | | 10.0-10.5 | | 10.5-11.0 | | 10.0-10.5 | | 10.5-11.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 21 | -- | 22 | -- | 21 | -- | 22 | -- | | 52 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| Benzene | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Bromodichloromethane | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Bromoform | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Bromomethane | 1 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| 2-Butanone | 50 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| Carbon Disulfide | NC | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Carbon Tetrachloride | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Chlorobenzene | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Chlorodibromomethane | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Chloroethane | NC | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| Chloroform | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Chloromethane | 10 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| 1,1-Dichloroethane | 10 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,2-Dichloroethane | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,1-Dichloroethene | 8 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,2-Dichloropropane | 10 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Ethylbenzene | 100 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 2-Hexanone | NC | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| Methylene Chloride | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Styrene | 23 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Tetrachloroethene | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Toluene | 500 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,1,1-Trichloroethane | 50 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| 1,1,2-Trichloroethane | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Trichloroethylene | 1 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| Vinyl Chloride | 2 | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- | 1.600 | -- |
| Xylenes (Total) | 67 | 0.660 | -- | 0.690 | -- | 0.660 | -- | 0.690 | -- | 0.800 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Chlorophenol | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Methylphenol | 2800 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 4-Methylphenol | 2800 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Nitrophenol | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2,4-Dimethylphenol | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2,4-Dichlorophenol | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2,4,5-Trichlorophenol | 50 | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| 2,4-Dinitrophenol | 10 | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| 4-Nitrophenol | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| Pentachlorophenol | 6 | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 1,3-Dichlorobenzene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 1,4-Dichlorobenzene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 1,2-Dichlorobenzene | 50 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Hexachloroethane | 6 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Nitrobenzene | 10 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Isophorone | 50 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Naphthalene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 4-Chloroaniline | 230 | 0.35 | -- | 0.36 | -- | | 0.017 J | 0.36 | -- | 0.3597 | -- |
| Hexachlorobutadiene | 1 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Methylnaphthalene | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-14B | | AOC-14B | | AOC-14B | | AOC-14B | | AOC-14B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-14B-1A | | SS-14B-2A | | SS-14B-3A | | SS-14B-4A | | SS-14B-5A |
| | | | 94508-026 | | 94508-027 | | 94508-028 | | 94508-029 | | 94508-030 |
| LAB ID | Unrestricted | | 993125A-04 | | 993125A-05 | | 993125A-06 | | 993125A-07 | | 993125A-08 |
| | Use | | | | | | | | | | 00066-004 |
| SAMPLE COLLECTION DATE | Soil | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 |
| DEPTH | Cleanup | | 10.5-11.0 | | 10.0-10.5 | | 10.5-11.0 | | 10.0-10.5 | | 10.5-11.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| Hexachlorocyclopentadiene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Chloronaphthalene | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 2-Nitroaniline | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| Dimethylphthalate | 50 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Acenaphthylene | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 3-Nitroaniline | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| Acenaphthene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Dibenzofuran | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Diethylphthalate | 50 | | 0.008 JB | | 0.01 JB | | 0.008 JB | 0.36 | -- | 0.3597 | -- |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Fluorene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 4-Nitroaniline | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| N-Nitrosodiphenylamine (1) | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 4-Bromophenyl-Phenylether | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Hexachlorobenzene | 0.66 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Phenanthrene | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Anthracene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Carbazole | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Di-n-Butylphthalate | 100 | | 0.05 JB | | 0.07 JB | | 0.074 JB | | 0.054 JB | | 0.045 JB |
| Fluoranthene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Pyrene | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Butylbenzylphthalate | 100 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| 3,3'-Dichlorobenzidine | 2 | 0.70 | -- | 0.73 | -- | 0.70 | -- | 0.71 | -- | 0.72 | -- |
| Benzo(a)Anthracene | 0.9 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Chrysene | 9 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.035 JB | | 0.036 JB | | 0.042 JB | | 0.035 JB | | 0.029 JB |
| Di-n-Octylphthalate | 100 | | 0.010 JB | | 0.012 JB | | 0.011 JB | | 0.012 JB | | 0.008 JB |
| Benzo(b)Fluoranthene | 0.9 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Benzo(k)Fluoranthene | 0.9 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Benzo(a)Pyrene | 0.66 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Dibenzo(a,h)Anthracene | 0.66 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Benzo(g,h,i)Perylene | NC | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Benzyl Alcohol | 50 | 0.35 | -- | 0.36 | -- | 0.3498 | -- | 0.36 | -- | 0.3597 | -- |
| Benzoic Acid | NC | 1.70 | -- | 1.76 | -- | 1.70 | -- | 1.73 | -- | 1.74 | -- |
| **Total Non-Target SVOCs** | NC | | 9.01 JB | | 9.38 JB | | 9.07 JB | | 8.98 JB | | 8.75 JB |
| **Total Semi-Volatile Organic Compounds** | NC | | 9.11 | | 9.51 | | 9.22 | | 9.08 | | 8.83 |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | 0.0422 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 9.109 | | 9.506 | | 9.22 | | 9.083 | | 60.831 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | 14 | | NA | | NA | | NA | | NA | 0.181 | -- |
| Arsenic | 20 | | NA | | NA | | NA | | NA | 0.415 | -- |
| Beryllium | 2 | | NA | | NA | | NA | | NA | 0.0283 | -- |
| Cadmium | 39 | | NA | | NA | | NA | | NA | 0.0335 | -- |
| Chromium | 120000[2] | | NA | | NA | | NA | | NA | | 4.10 |
| Copper | 600 | | NA | | NA | | NA | | NA | | 2.50 J |
| Iron | NC | | NA | | NA | | NA | | NA | | NA |
| Lead | 400 | | NA | | NA | | NA | | NA | | 2.48 |
| Mercury | 14 | | NA | | NA | | NA | | NA | 0.0434 | -- |
| Nickel | 250 | | NA | | NA | | NA | | NA | | 0.167 J |
| Selenium | 63 | | NA | | NA | | NA | | NA | 0.555 | -- |
| Silver | 110 | | NA | | NA | | NA | | NA | 0.0877 | -- |
| Thallium | 2 | | NA | | NA | | NA | | NA | | 0.613 J |
| Zinc | 1500 | | NA | | NA | | NA | | NA | | 4.07 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
N Negated by data validation
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-14C | | AOC-14C | | AOC-14C | | AOC-14C | | AOC-14C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-14C-1A | | SS-14C-1B | | SS-14C-2A | | SS-14C-3A | | SS-14C-4A |
| LAB ID | Unrestricted Use | | 993069A-01 | | 993069A-02 | | 993069A-03 | | 993069A-04 | | 993069A-05 |
| SAMPLE COLLECTION DATE | Soil | | 11/11/1999 | | 11/11/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 9.5-10.0 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-14
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-14C | | AOC-14C | | AOC-14C | | AOC-14C | | AOC-14C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-14C-1A | | SS-14C-1B | | SS-14C-2A | | SS-14C-3A | | SS-14C-4A |
| LAB ID | Unrestricted | | 993069A-01 | | 993069A-02 | | 993069A-03 | | 993069A-04 | | 993069A-05 |
| | Use | | | | | | | | | | |
| SAMPLE COLLECTION DATE | Soil | | 11/11/1999 | | 11/11/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 9.5-10.0 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine (1) | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | NC | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | 14 | 1.4 | -- J | 1.3 | -- J | 1.3 | -- J | | 2.9 J | 1.4 | -- J |
| Arsenic | 20 | | 1.6 J | 0.73 | -- | 0.75 | -- | | 14.9 | | 0.91 J |
| Beryllium | 2 | 0.21 | -- | 0.18 | -- | 0.19 | -- | | 1.5 | 0.21 | -- |
| Cadmium | 39 | 0.21 | -- | 0.18 | -- | 0.19 | -- | 0.23 | -- | 0.21 | -- |
| Chromium | 120000[2] | | 5.4 J | | 2.6 J | | 4.4 J | | 22.6 J | | 6.1 J |
| Copper | 600 | | 10.7 J | | 0.90 J | | 10.80 J | | 288 J | | 9.0 J |
| Iron | NC | | 5540 | | 914 | | 2860 | | 115000 | | 3270 |
| Lead | 400 | | 8.2 J | | 1.4 J | | 7.4 J | | 27.3 J | | 9.2 J |
| Mercury | 14 | | 0.046 J | | 0.026 J | | 0.023 J | | 0.056 J | | 0.035 J |
| Nickel | 250 | | 2.3 J | | 1.3 J | | 2.0 J | | 8.4 J | | 1.5 J |
| Selenium | 63 | 1 | -- J | 0.92 | -- J | 0.94 | -- J | | 4.2 J | 1 | -- J |
| Silver | 110 | 0.21 | -- | 0.18 | -- | 0.19 | -- | 0.23 | -- | 0.21 | -- |
| Thallium | 2 | **2.1** | -- J | 1.8 | -- J | 1.9 | -- J | | **8.3** J | **2.1** | -- J |
| Zinc | 1500 | | N | | N | | 43.1 J | | 274 | | 62.3 J |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in blank
N Negated by data validation
NC No criteria established
NA Not analyzed

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15A | | AOC-15A | | AOC-15A | | AOC-15A | | AOC-15B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15A-1A | | SS-15A-2A | | SS-15A-3A | | SS-15A-4A | | SS-15B-1A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 171779 | | 171780 | | 171781 | | 171782 | | 171447 |
| SAMPLE COLLECTION DATE | | | 11/29/1999 | | 11/29/1999 | | 11/29/1999 | | 11/29/1999 | | 11/23/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 31.4 | | 27.9 | | 39.8 | | 47.6 | | 43.7 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1221 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1232 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1242 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1248 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1254 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1260 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1262 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| Aroclor-1268 | NC | 0.072 | -- | 0.075 | -- | 0.072 | -- | 0.076 | -- | 0.070 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 31.4 | | 27.9 | | 39.8 | | 47.6 | | 43.7 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15B | | AOC-15B | | AOC-15B | | AOC-15B | | AOC-15C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15B-2A | | SS-15B-3A | | SS-15B-4A | | SS-15B-5A | | SS-15C-1A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 171367 | | 171448 | | 171368 | | 94555-002 | | 171369 |
| SAMPLE COLLECTION DATE | | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 46.0 | | 105 | | 80.6 | | 53 | | 378 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1221 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1232 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1242 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1248 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1254 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1260 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | 0.0350 | -- | 0.072 | -- |
| Aroclor-1262 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | | NA | 0.072 | -- |
| Aroclor-1268 | NC | 0.070 | -- | 0.071 | -- | 0.070 | -- | | NA | 0.072 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 46 | | 105 | | 80.6 | | 53 | | 378 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15C | | AOC-15C | | AOC-15C | | AOC-15D | | AOC-15D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15C-2A | | SS-15C-3A | | SS-15C-4A | | SS-15D-1A | | SS-15D-1B |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 171439 | | 171438 | | 94549-001 | | 94476-017 | | 94476-018 |
| SAMPLE COLLECTION DATE | | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/16/1999 | | 11/16/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 1.5-2.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 635 | | 429 | | 170 | | 52 | 22 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1221 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1232 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1242 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1248 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1254 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1260 | NC | 0.071 | -- | 0.072 | -- | 0.0344 | -- | 0.0471 | -- | 0.0356 | -- |
| Aroclor-1262 | NC | 0.071 | -- | 0.072 | -- | | NA | | NA | | NA |
| Aroclor-1268 | NC | 0.071 | -- | 0.072 | -- | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 635 | | 429 | | 170 | | 52 | | -- |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15D | | AOC-15D | | AOC-15D | | AOC-15D | | AOC-15D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15D-2A | | SS-15D-2B | | SS-15D-3A | | SS-15D-3B | | SS-15D-4A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 94519-014 | | 171025 | | 94476-019 | | 94476-020 | | 94519-012 |
| SAMPLE COLLECTION DATE | | | 11/22/1999 | | 11/22/1999 | | 11/16/1999 | | 11/16/1999 | | 11/22/1999 |
| DEPTH | | | 0.0-0.5 | | 1.5-2.0 | | 0.0-0.5 | | 1.5-2.0 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 160 | | 32.4 | | 24 | | 21 | 22 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1221 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1232 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1242 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1248 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1254 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1260 | NC | 0.0358 | -- | | NA | 0.0351 | -- | 0.0348 | -- | 0.0355 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | NA | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 160 | | 32.4 | | 24 | | 21 | | -- |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15D | | AOC-15E | | AOC-15E | | AOC-15E | | AOC-15F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15D-4B | | 15E-1A | | 15E-2A | | SS-15E-3A | | SS-15F-1A |
| LAB ID | | | 94519-013 | | 94555-008 | | 171369<br>94555-007 | | 94555-006 | | 94555-003 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/22/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 |
| DEPTH | | | 1.5-2.0 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 21 | -- | | 81 | | 140 | | 72 | | 83 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1221 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1232 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1242 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1248 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1254 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1260 | NC | 0.0354 | -- | 0.0330 | -- | 0.0337 | -- | 0.0327 | -- | 0.0343 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | 81 | | 140 | | 72 | | 83 |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15F | | AOC-15F | | AOC-15F | | AOC-15F | | AOC-15F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15F-2A | | 151123DUP* | | SS-15F-3A | | SS-15F-4A | | SS-15F-5A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 94555-005 | | 94555-009 | | 171452 | | 171453 | | 94555-004 |
| SAMPLE COLLECTION DATE | | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 64 J | | 93 J | | 80.9 | | 65.3 | | 210 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1221 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1232 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1242 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1248 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1254 | NC | 0.0347 | -- | | 0.0219 J | 0.070 | -- | | 0.087 | 0.0344 | -- |
| Aroclor-1260 | NC | 0.0347 | -- | 0.0329 | -- | 0.070 | -- | 0.071 | -- | 0.0344 | -- |
| Aroclor-1262 | NC | | NA | | NA | 0.070 | -- | 0.071 | -- | | NA |
| Aroclor-1268 | NC | | NA | | NA | 0.070 | -- | 0.071 | -- | | NA |
| **Total PCBs** | 0.49 | | -- | | 0.0219 | | -- | | 0.087 | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 64 | | 93.02 | | 80.9 | | 65.387 | | 210 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15G | | AOC-15G | | AOC-15G | | AOC-15G | | AOC-15G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15G-1A | | SS-15G-2A | | SS-15G-3A | | SS-15G-4A | | SS-15G-5A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 171772 | | 171773 | | 171774 | | 171775 | | 171776 |
| SAMPLE COLLECTION DATE | | | 11/29/1999 | | 11/29/1999 | | 11/29/1999 | | 11/29/1999 | | 11/29/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 34.7 | | 47.7 | | 48.6 | | 37.9 | | 36.7 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1221 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1232 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1242 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1248 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1254 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1260 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1262 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1268 | NC | 0.072 | -- | 0.072 | -- | 0.072 | -- | 0.071 | -- | 0.072 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 34.7 | | 47.7 | | 48.6 | | 37.9 | | 36.7 |

**NOTES:**

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15G | | AOC-15G | | AOC-15H | | AOC-15H | | AOC-15H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15G-6A | | SS-15G-7A | | SS-15H-1A | | SS-15H-2A | | SS-15H-3A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 171777 | | 171778 | | 174825 | | 174826 | | 174827 |
| SAMPLE COLLECTION DATE | | | 11/29/1999 | | 11/29/1999 | | 12/13/1999 | | 12/13/1999 | | 12/13/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 45.2 | | 43.4 | | 51.6 | | 39.7 | | 27.3 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1221 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1232 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1242 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1248 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1254 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1260 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1262 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| Aroclor-1268 | NC | 0.072 | -- | 0.071 | -- | 0.073 | -- | 0.073 | -- | 0.075 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 45.2 | | 43.4 | | 51.6 | | 39.7 | | 27.3 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15H | | AOC-15H | | AOC-15H | | AOC-15I | | AOC-15I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15H-4A | | SS-15H-5A | | SS-15H-6A | | SS-15I-1A | | SS-15I-2A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 174828 | | 174829 | | 174830 | | 171442 | | 171440 |
| SAMPLE COLLECTION DATE | | | 12/13/1999 | | 12/13/1999 | | 12/13/1999 | | 11/23/1999 | | 11/23/1999 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 40.7 | | 62.4 | | 35.2 | | 44.8 | | 57.3 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1221 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1232 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1242 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1248 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1254 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1260 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1262 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| Aroclor-1268 | NC | 0.074 | -- | 0.074 | -- | 0.073 | -- | 0.072 | -- | 0.071 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 40.7 | | 62.4 | | 35.2 | | 44.8 | | 57.3 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15I | | AOC-15I | | AOC-15J | | AOC-15J | | AOC-15J |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15I-3A | | SS-15I-4A | | SS-15J-1A | | SS-15J-2A | | SS-15J-3A |
| LAB ID | | | 94555-001 | | 171441 | | 171785 | | 171786 | | 171443<br>00057-005 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/23/1999 | | 11/23/1999 | | 11/29/1999 | | 11/29/1999 | | 11/24/1999<br>1/3/2000 |
| DEPTH | | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.5-1.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 58 | | 41.9 | | 84.7 | | 234 | | 2190 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | 1.600 | -- |
| Benzene | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Bromoform | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | **1.600** | -- |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | 1.600 | -- |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | 0.820 | -- |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | 0.280 | -- |
| Chloroethane | NC | | NA | | NA | | NA | | NA | 0.280 | -- |
| Chloroform | 1 | | NA | | NA | | NA | | NA | 1.600 | -- |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | 1.600 | -- |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | 1.600 | -- |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | 1.600 | -- |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Styrene | 23 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Toluene | 500 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | 0.820 | -- |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | 0.820 | -- |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | 1.600 | -- |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | 0.820 | -- |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | -- |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | -- |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1221 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1232 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1242 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1248 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1254 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1260 | NC | 0.0355 | -- | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1262 | NC | | NA | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| Aroclor-1268 | NC | | NA | 0.071 | -- | 0.070 | -- | 0.073 | -- | 0.069 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 58 | | 41.9 | | 84.7 | | 234 | | 2190 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15K-1A | | SS-15K-1B | | SS-15K-2A | | SS-15K-2B | | SS-15K-3A |
| LAB ID | | | 94492-009 | | 94492-010 | | 94508-022 | | 94508-023 | | 94492-007 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/17/1999 | | 11/17/1999 | | 11/17/1999 | | 11/17/1999 | | 11/17/1999 |
| DEPTH | | | 2.0-2.5 | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 | | 2.0-2.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 22 | -- | 21 | -- | | 24 | 21 | -- | | 311 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1221 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1232 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1242 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1248 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1254 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | 0.0356 | -- |
| Aroclor-1260 | NC | 0.0354 | -- | 0.0351 | -- | 0.0347 | -- | 0.0351 | -- | | 0.0179 J |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | 0.0179 |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | 24 | | -- | | 311.02 |

**NOTES:**

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15K-3B | | SS-15K-4A | | SS-15K-4B | | SS-15K-5A | | SS-15K-5B |
| LAB ID | | | 94492-008 | | 94508-011<br>94852-001 | | 94508-012<br>94852-002 | | 94492-001 | | 94492-002 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/17/1999 | | 11/18/1999 | | 11/18/1999 | | 11/17/1999 | | 11/17/1999 |
| DEPTH | Cleanup | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 25 | -- | 22 | -- | 22 | -- | 22 | -- | 22 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1221 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1232 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1242 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1248 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1254 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1260 | NC | 0.0407 | -- | 0.0354 | -- | 0.0354 | -- | 0.0358 | -- | 0.0352 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | -- | | -- | | -- |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15K-DUP* | | SS-15K-6A | | SS-15K-6B | | SS-15K-7A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 94492-014 | | 94492-003 | | 94492-004 | | 94508-009<br>00066-001 |
| SAMPLE COLLECTION DATE | | | 11/17/1999 | | 11/17/1999 | | 11/17/1999 | | 11/18/1999 |
| DEPTH | | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 | | 2.0-2.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 23 | -- | | 31 | 22 | -- | | 27 |
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | |
| Aroclor-1016 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1221 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1232 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1242 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1248 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1254 | NC | 0.0372 | -- | 0.0361 | -- | | **0.754** | 0.0445 | -- |
| Aroclor-1260 | NC | 0.0372 | -- | 0.0361 | -- | 0.0717 | -- | 0.0445 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | **0.754** | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | 31 | | 0.754 | | 27 |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15A-15K
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15K-7B | | SS-15K-8A | | SS-15K-8B | | MW-15K-1A |
| LAB ID | Unrestricted Use Soil Cleanup Criteria[1] | | 94508-010 00066-002 | | 94492-005 | | 94492-006 | | 174358 |
| SAMPLE COLLECTION DATE | | | 11/18/1999 | | 11/17/1999 | | 11/17/1999 | | 12/09/1999 |
| DEPTH | | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 | | 10.5-11.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 23 | 22 | -- | 22 | -- | | 77.6 |
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | 0.620 | -- |
| Benzene | 1 | | NA | | NA | | NA | 0.120 | -- |
| Bromodichloromethane | 1 | | NA | | NA | | NA | 0.120 | -- |
| Bromoform | 1 | | NA | | NA | | NA | 0.500 | -- |
| Bromomethane | 1 | | NA | | NA | | NA | 0.250 | -- |
| 2-Butanone | 50 | | NA | | NA | | NA | 0.620 | -- |
| Carbon Disulfide | NC | | NA | | NA | | NA | 0.620 | -- |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | 0.250 | -- |
| Chlorobenzene | 1 | | NA | | NA | | NA | 0.620 | -- |
| Chloroethane | NC | | NA | | NA | | NA | 0.250 | -- |
| Chloroform | 1 | | NA | | NA | | NA | 0.620 | -- |
| Chloromethane | 10 | | NA | | NA | | NA | 0.250 | -- |
| Dibromochloromethane | 1 | | NA | | NA | | NA | 0.620 | -- |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | 0.620 | -- |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | 0.250 | -- |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | 0.250 | -- |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | 0.620 | -- |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | 0.620 | -- |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | 0.120 | -- |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | 0.620 | -- |
| Ethylbenzene | 100 | | NA | | NA | | NA | 0.500 | -- |
| 2-Hexanone | NC | | NA | | NA | | NA | 0.620 | -- |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | 0.620 | -- |
| Methylene Chloride | 1 | | NA | | NA | | NA | 0.370 | -- |
| Styrene | 23 | | NA | | NA | | NA | 0.620 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | 0.120 | -- |
| Tetrachloroethene | 1 | | NA | | NA | | NA | 0.120 | -- |
| Toluene | 500 | | NA | | NA | | NA | 0.620 | -- |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | 0.620 | -- |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | 0.370 | -- |
| Trichloroethylene | 1 | | NA | | NA | | NA | 0.120 | -- |
| Vinyl Chloride | 2 | | NA | | NA | | NA | 0.250 | -- |
| Xylenes (Total) | 67 | | NA | | NA | | NA | 0.620 | -- |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | -- |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | -- |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | |
| Aroclor-1016 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1221 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1232 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1242 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1248 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1254 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1260 | NC | 0.0361 | -- | 0.0352 | -- | 0.0354 | -- | 0.076 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | 0.076 | -- |
| Aroclor-1268 | NC | | NA | | NA | | NA | 0.076 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 23 | | -- | | -- | | 77.6 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC- 15L-15R
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15L | | AOC-15L | | AOC-15L | | AOC-15L | | AOC-15M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15L-1A | | SS-15L-1B | | SS-15L-2A | | SS-15L-2B | | SS-15M-1A |
| | | | 94508-015 | | 94508-016 | | 94508-013 | | 94508-014 | | 171444 |
| LAB ID | Unrestricted | | 94852-003 | | 94852-004 | | 00066-003 | | 94852-005 | | |
| SAMPLE COLLECTION DATE | Use Soil | | 11/18/1999 | | 11/18/1999 | | 11/18/1999 | | 11/18/1999 | | 11/24/1999 |
| DEPTH | Cleanup | | 2.0-2.5 | | 4.0-4.5 | | 2.0-2.5 | | 4.0-4.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 91 | 23 | -- | | 23 | 24 | -- | | 328 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1221 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1232 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1242 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1248 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1254 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1260 | NC | 0.0386 | -- | 0.0388 | -- | 0.0351 | -- | 0.0401 | -- | 0.070 | -- |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | 0.070 | -- |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | 0.070 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 91 | | -- | | 23 | | -- | | 328 |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected

TABLE 5 - AOC- 15L-15R
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15M | | AOC-15M | | AOC-15M | | AOC-15N | | AOC-15N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15M-2A | | SS-15M-3A | | SS-15M-4A | | SS-15N-1A | | SS-15N-2A |
| LAB ID | Unrestricted | | 171445 | | 171446 | | 171787<br>00057-006 | | 171363 | | 171364 |
| SAMPLE COLLECTION DATE | Use | | 11/24/1999 | | 11/24/1999 | | 11/29/1999<br>1/3/2000 | | 11/23/1999 | | 11/23/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 270 | | 1200 | | 3650 | | 55.7 | | 65.8 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | 1.300 | -- | | NA | | NA |
| Benzene | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Bromoform | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | **1.300** | -- | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | 1.300 | -- | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | 0.650 | -- | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Chloroethane | NC | | NA | | NA | 0.650 | -- | | NA | | NA |
| Chloroform | 1 | | NA | | NA | 1.300 | -- | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | 1.300 | -- | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | 1.300 | -- | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | 1.300 | -- | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Styrene | 23 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Toluene | 500 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | 0.650 | -- | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | 0.650 | -- | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | 1.300 | -- | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | 0.650 | -- | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | -- | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | -- | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1221 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1232 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1242 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1248 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1254 | NC | 0.070 | -- | | **2.100** | | **1.600** | 0.071 | -- | 0.072 | -- |
| Aroclor-1260 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1262 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| Aroclor-1268 | NC | 0.070 | -- | 0.140 | -- | 0.075 | -- | 0.071 | -- | 0.072 | -- |
| **Total PCBs** | 0.49 | | -- | | **2.1** | | **1.6** | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 270 | | 1202.1 | | 3651.6 | | 55.7 | | 65.8 |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected

TABLE 5 - AOC- 15L-15R
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15N | | AOC-15N | | AOC-15O | | AOC-15O | | AOC-15O |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15N-3A | | SS-15N-4A | | SS-15O-1A | | SS-15O-2A | | SS-15O-3A |
| LAB ID | Unrestricted | | 171365 | | 171366 | | 172267 | | 172268 | | 172269 |
| SAMPLE COLLECTION DATE | Use | | 11/23/1999 | | 11/23/1999 | | 11/30/1999 | | 11/30/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 66.8 | | 57.5 | 25.0 | -- | | 36.4 | | 43.2 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1221 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1232 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1242 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1248 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1254 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1260 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1262 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| Aroclor-1268 | NC | 0.072 | -- | 0.071 | -- | 0.075 | -- | 0.074 | -- | 0.075 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 66.8 | | 57.5 | | -- | | 36.4 | | 43.2 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected

TABLE 5 - AOC- 15L-15R
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15O | | AOC-15P | | AOC-15P | | AOC-15P | | AOC-15Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15O-4A | | SS-15P-1A | | SS-15P-2A | | SS-15P-4A | | SS-15Q-1A |
| LAB ID | | | 96411-004 | | 171449 | | 171450 | | 171451 | | 172949 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/30/1999 | | 11/23/1999 | | 11/23/1999 | | 11/23/1999 | | 12/03/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 55 | | 37.5 | | 31.0 | | 41.6 | | 37.4 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1221 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1232 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1242 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1248 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1254 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1260 | NC | 0.0363 | -- | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1262 | NC | | NA | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| Aroclor-1268 | NC | | NA | 0.070 | -- | 0.069 | -- | 0.070 | -- | 0.071 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 55 | | 37.5 | | 31 | | 41.6 | | 37.4 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected

TABLE 5 - AOC- 15L-15R
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15Q | | AOC-15Q | | AOC-15Q |
|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-15Q-2A | | SS-15Q-3A | | SS-15Q-4A |
| LAB ID | Unrestricted | | 172950 | | 172951 | | 172952 |
| SAMPLE COLLECTION DATE | Use | | 12/03/1999 | | 12/03/1999 | | 12/03/1999 |
| DEPTH | Soil Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 29.4 | | 34.4 | 25.0 | -- |
| **Volatile Organic Compounds** | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA |
| Dibromochloromethane | 1 | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | |
| Aroclor-1016 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1221 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1232 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1242 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1248 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1254 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1260 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1262 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| Aroclor-1268 | NC | 0.072 | -- | 0.073 | -- | 0.072 | -- |
| **Total PCBs** | 0.49 | | -- | | -- | | -- |
| TOTAL ORGANIC COMPOUNDS | 10000 | | 29.4 | | 34.4 | | -- |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte or MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16A-1A | | SS-16A-2A | | SS-16A-DUP/ SS 16A-2AD* | | SS-16A-3A | | SS-16A-4A |
| | | | 94508-017 | | 94508-018 | | 94508-019 | | 94519-007 | | 94519-006 |
| LAB ID | | | 993125A-01 | | 993125A-02 | | 993125A-03 | | 94819-005 | | 993136A-04 |
| | Unrestricted Use | | 00057-001 | | 00057-003 | | 00057-004 | | 993136A-05 | | 94819-004 |
| SAMPLE COLLECTION DATE | | | 11/18/1999 | | 11/18/1999 | | 11/18/1999 | | 11/19/1999 | | 11/19/1999 |
| DEPTH | Cleanup | | 01/03/2000 | | 01/03/2000 | | 01/03/2000 | | | | |
| MATRIX | Criteria[1] | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 |
| UNITS | mg/kg | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| | | | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg |
| | | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 21 | -- | | 60 | | 36 | | 78 | | 160 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| Benzene | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Bromodichloromethane | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Bromoform | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Bromomethane | 1 | **1.600** | -- | 1.000 | -- | **1.300** | -- | **1.300** | -- | **1.300** | -- |
| 2-Butanone | 50 | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| Carbon Disulfide | NC | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Carbon Tetrachloride | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Chlorobenzene | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Chlorodibromomethane | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Chloroethane | NC | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| Chloroform | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Chloromethane | 10 | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| 1,1-Dichloroethane | 10 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,2-Dichloroethane | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,1-Dichloroethene | 8 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,2-Dichloropropane | 10 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Ethylbenzene | 100 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 2-Hexanone | NC | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| Methylene Chloride | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Styrene | 23 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Tetrachloroethene | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Toluene | 500 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,1,1-Trichloroethane | 50 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| 1,1,2-Trichloroethane | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Trichloroethylene | 1 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| Vinyl Chloride | 2 | 1.600 | -- | 1.000 | -- | 1.300 | -- | 1.300 | -- | 1.300 | -- |
| Xylenes (Total) | 67 | 0.810 | -- | 0.540 | -- | 0.660 | -- | 0.650 | -- | 0.650 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2-Chlorophenol | 10 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2-Methylphenol | 2800 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 4-Methylphenol | 2800 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2-Nitrophenol | NC | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2,4-Dimethylphenol | 10 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2,4-Dichlorophenol | 10 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.440 | -- | 0.360 | -- | 0.360 | -- | 0.36 | -- | 0.350 | -- |
| 2,4,5-Trichlorophenol | 50 | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| 2,4-Dinitrophenol | 10 | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| 4-Nitrophenol | NC | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| Pentachlorophenol | 6 | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 1,3-Dichlorobenzene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 1,4-Dichlorobenzene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 1,2-Dichlorobenzene | 50 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Hexachloroethane | 6 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Nitrobenzene | 10 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Isophorone | 50 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Naphthalene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 4-Chloroaniline | 230 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Hexachlorobutadiene | 1 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 2-Methylnaphthalene | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Hexachlorocyclopentadiene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 2-Chloronaphthalene | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 2-Nitroaniline | NC | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |
| Dimethylphthalate | 50 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| Acenaphthylene | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- |
| 3-Nitroaniline | NC | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16A | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16A-1A | | SS-16A-2A | | SS-16A-DUP/ SS 16A-2AD* | | SS-16A-3A | | SS-16A-4A | |
| | | | 94508-017 | | 94508-018 | | 94508-019 | | 94519-007 | | 94519-006 | |
| LAB ID | | | 993125A-01 | | 993125A-02 | | 993125A-03 | | 94819-005 | | 993136A-04 | |
| | Unrestricted Use | | 00057-001 11/18/1999 | | 00057-003 11/18/1999 | | 00057-004 11/18/1999 | | 993136A-05 | | 94819-004 | |
| SAMPLE COLLECTION DATE | Soil | | 01/03/2000 | | 01/03/2000 | | 01/03/2000 | | 11/19/1999 | | 11/19/1999 | |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | |
| Acenaphthene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Dibenzofuran | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Diethylphthalate | 50 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Fluorene | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| 4-Nitroaniline | NC | 2.300 | -- | 1.800 | -- | 1.800 | -- | 1.73 | -- | 1.700 | -- | |
| N-Nitrosodiphenylamine | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Hexachlorobenzene | 0.66 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | -- | 0.350 | -- | |
| Phenanthrene | NC | 0.130 | -- | | 0.042 J | | 0.032 J | | 0.067 J | | 0.009 J | |
| Anthracene | 100 | 0.130 | -- | | 0.011 J | 0.110 | -- | 0.36 | 0.017 J | 0.350 | -- | |
| Carbazole | NC | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.36 | 0.01 J | 0.350 | -- | |
| Di-n-Butylphthalate | 100 | 0.130 | -- | 0.110 | -- | 0.110 | -- | | N | | | N |
| Fluoranthene | 100 | | 0.026 J | | 0.098 J | | 0.100 J | | 0.100 J | | 0.017 J | |
| Pyrene | 100 | | 0.022 J | | 0.087 J | | 0.088 J | | 0.110 J | | 0.020 J | |
| Butylbenzylphthalate | 100 | 0.130 | -- | | 0.059 J | | 0.073 J | | 0.200 J | | 0.260 J | |
| 3,3'-Dichlorobenzidine | 2 | 0.130 | -- | 0.110 | -- | 0.110 | -- | 0.710 | -- | 0.710 | -- | |
| Benzo(a)Anthracene | 0.9 | 0.130 | -- | | 0.057 J | | 0.067 J | | 0.05 J | | 0.013 J | |
| Chrysene | 9 | 0.130 | -- | | 0.053 J | | 0.055 J | | 0.058 J | | 0.014 J | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.04 J | | 0.074 J | | 0.084 J | | 0.160 J | | 0.200 J | |
| Di-n-Octylphthalate | 100 | 0.130 | -- | | 0.068 J | | 0.077 J | | N | | | N |
| Benzo(b)Fluoranthene | 0.9 | 0.130 | -- | | 0.065 J | | 0.079 J | | 0.049 J | | 0.012 J | |
| Benzo(k)Fluoranthene | 0.9 | 0.130 | -- | | 0.040 J | | 0.028 J | | 0.083 J | | 0.017 J | |
| Benzo(a)Pyrene | 0.66 | 0.130 | -- | | 0.051 J | | 0.052 J | | 0.060 J | 0.350 | -- | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.130 | -- | | 0.038 J | | 0.025 J | | 0.045 J | | 0.010 J | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.130 | -- | 0.110 | -- | 0.110 | -- | | 0.014 J | 0.350 | -- | |
| Benzo(g,h,i)Perylene | NC | 0.130 | -- | | 0.046 J | | 0.034 J | | 0.047 J | | 0.013 J | |
| Benzyl alcohol | 50 | | NA | | NA | | NA | 0.36 | -- | 0.356 | -- | |
| Benzoic Acid | NC | | NA | | NA | | NA | 0.36 | -- | 1.700 | -- | |
| **Total Non-Target SVOCs** | NC | | 2.46 J | | 22.5 J | | 124.40 J | | 3.47 JN | | 3.49 JN | |
| **Total Semi-Volatile Organic Compounds** | NC | | 2.55 | | 23.29 | | 125.19 | | 4.54 | | 4.08 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1221 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1232 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1242 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1248 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1254 | NC | | NA | | NA | | NA | | 0.133 | | 0.0326 J | |
| Aroclor-1260 | NC | | NA | | NA | | NA | 0.0344 | -- | 0.035 | -- J | |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | 0.133 | | 0.0326 | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 2.55 | | 83.289 | | 161.19 | | 82.67 | | 164.11 | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | |
| Antimony | 14 | | NA | | NA | | NA | 8.3 | -- | 9.4 | -- | |
| Arsenic | 20 | | NA | | NA | | NA | 1.4 | -- | 1.6 | -- | |
| Beryllium | 2 | | NA | | NA | | NA | 0.69 | -- | 0.78 | -- | |
| Cadmium | 39 | | NA | | NA | | NA | 0.69 | -- | 0.78 | -- | |
| Chromium | 120000[2] | | NA | | NA | | NA | | 5.6 | | 1.6 J | |
| Copper | 600 | | NA | | NA | | NA | | 17.8 J | 3.9 | -- | |
| Iron | NC | | NA | | NA | | NA | | NA | | NA | |
| Lead | 400 | | NA | | NA | | NA | | 14.3 J | | 6.7 J | |
| Mercury | 14 | | NA | | NA | | NA | | 0.023 J | | 0.014 J | |
| Nickel | 250 | | NA | | NA | | NA | 5.5 | -- | 6.2 | -- | |
| Selenium | 63 | | NA | | NA | | NA | 0.69 | -- J | 0.78 | -- J | |
| Silver | 110 | | NA | | NA | | NA | 1.4 | -- | 1.6 | -- | |
| Thallium | 2 | | NA | | NA | | NA | 1.4 | -- | | | N |
| Zinc | 1500 | | NA | | NA | | NA | | 85.8 | | 16.8 | |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA | |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

3 Ingestion exposure pathway criteria

4 Inhalation exposure pathway criteria

**bold** MDL exceeds Unrestricted Use Criteria

MDL Method Detection Limit

CONC Concentration

Q Qualifier

-- Not Detected

J Estimated value

NC No criteria established

NA Not analyzed

* Duplicate of previous sample

B Analyte detected in blank

N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16B | | AOC-16B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16A-5A | | SS-16A-6A | | SS-16A-7A | | SS-16B-1A | | SS-16B-2A |
| LAB ID | | | 94519-001<br>993136A-01 | | 94519-002<br>993136A-02<br>94819-001 | | 94519-005<br>993136A-03 | | 94476-025<br>993119A-08 | | 94476-024<br>993119A-07 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/16/1999 | | 11/16/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 28 | | 40 | | 25 | | 114 | | 81 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| Benzene | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Bromodichloromethane | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Bromoform | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Bromomethane | 1 | **1.300** | -- J | **1.300** | -- | **1.300** | -- | **1.200** | -- | **1.300** | -- |
| 2-Butanone | 50 | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| Carbon Disulfide | NC | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Carbon Tetrachloride | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Chlorobenzene | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Chlorodibromomethane | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Chloroethane | NC | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| Chloroform | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Chloromethane | 10 | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| 1,1-Dichloroethane | 10 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,2-Dichloroethane | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,1-Dichloroethene | 8 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,2-Dichloropropane | 10 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Ethylbenzene | 100 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 2-Hexanone | NC | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| Methylene Chloride | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Styrene | 23 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Tetrachloroethene | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Toluene | 500 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,1,1-Trichloroethane | 50 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| 1,1,2-Trichloroethane | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Trichloroethylene | 1 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| Vinyl Chloride | 2 | 1.300 | -- J | 1.300 | -- | 1.300 | -- | 1.200 | -- | 1.300 | -- |
| Xylenes (Total) | 67 | 0.670 | -- J | 0.670 | -- | 0.670 | -- | 0.650 | -- | 0.670 | -- |
| **Total Non-Target VOCs** | NC | | -- J | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Chlorophenol | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Methylphenol | 2800 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 4-Methylphenol | 2800 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Nitrophenol | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2,4-Dimethylphenol | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2,4-Dichlorophenol | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2,4,5-Trichlorophenol | 50 | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| 2,4-Dinitrophenol | 10 | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| 4-Nitrophenol | NC | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| Pentachlorophenol | 6 | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 1,3-Dichlorobenzene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 1,4-Dichlorobenzene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 1,2-Dichlorobenzene | 50 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Hexachloroethane | 6 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Nitrobenzene | 10 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Isophorone | 50 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Naphthalene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 4-Chloroaniline | 230 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Hexachlorobutadiene | 1 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Methylnaphthalene | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Hexachlorocyclopentadiene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Chloronaphthalene | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 2-Nitroaniline | NC | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |
| Dimethylphthalate | 50 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| Acenaphthylene | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- |
| 3-Nitroaniline | NC | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16A | | AOC-16A | | AOC-16A | | AOC-16B | | AOC-16B | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16A-5A | | SS-16A-6A | | SS-16A-7A | | SS-16B-1A | | SS-16B-2A | |
| LAB ID | | | 94519-001<br>993136A-01 | | 94519-002<br>993136A-02<br>94819-001 | | 94519-005<br>993136A-03 | | 94476-025<br>993119A-08 | | 94476-024<br>993119A-07 | |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | | 11/16/1999 | | 11/16/1999 | |
| DEPTH | Cleanup | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | | 0.0-2.0 | |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | |
| Acenaphthene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Dibenzofuran | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Diethylphthalate | 50 | 0.350 | -- | | N | 0.356 | -- | | 0.008 JB | 0.340 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Fluorene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| 4-Nitroaniline | NC | 1.696 | -- | 1.680 | -- | 1.728 | -- | 1.700 | -- | 1.700 | -- | |
| N-Nitrosodiphenylamine | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Hexachlorobenzene | 0.66 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Phenanthrene | NC | | 0.008 J | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Anthracene | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | | 0.008 J | 0.340 | -- | |
| Carbazole | NC | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Di-n-Butylphthalate | 100 | | N | | N | | N | | 0.032 JB | | 0.042 JB | |
| Fluoranthene | 100 | | 0.019 J | 0.347 | | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Pyrene | 100 | | 0.022 J | 0.347 | | 0.356 | -- | | 0.006 J | 0.340 | -- | |
| Butylbenzylphthalate | 100 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| 3,3'-Dichlorobenzidine | 2 | 0.700 | -- | 0.693 | -- | 0.713 | -- | 0.700 | -- | 0.690 | -- | |
| Benzo(a)Anthracene | 0.9 | | 0.018 J | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Chrysene | 9 | | 0.019 J | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | N | | N | | N | | 0.046 JB | | 0.120 JB | |
| Di-n-Octylphthalate | 100 | | N | | N | | N | | 0.007 JB | | 0.008 JB | |
| Benzo(b)Fluoranthene | 0.9 | | 0.021 J | 0.347 | -- | 0.356 | -- | | 0.008 J | 0.340 | -- | |
| Benzo(k)Fluoranthene | 0.9 | | 0.019 J | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Benzo(a)Pyrene | 0.66 | | 0.015 J | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | 0.011 J | 0.347 | -- | 0.356 | -- | | 0.010 J | 0.340 | -- | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Benzo(g,h,i)Perylene | NC | | 0.011 J | 0.347 | -- | 0.356 | -- | | 0.008 J | 0.340 | -- | |
| Benzyl alcohol | 50 | 0.350 | -- | 0.347 | -- | 0.356 | -- | 0.350 | -- | 0.340 | -- | |
| Benzoic Acid | NC | | 0.033 J | | 0.024 J | 0.356 | -- | 1.700 | -- | 1.700 | -- | |
| **Total Non-Target SVOCs** | NC | | 2.75 JN | | 1.19 JN | | 3.07 JN | | 6.81 JB | | 8.04 JB | |
| **Total Semi-Volatile Organic Compounds** | NC | | 2.94 | | 1.21 | | 3.07 | | 6.94 | | 8.21 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1221 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1232 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1242 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1248 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1254 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1260 | NC | | NA | 0.035 | -- | | NA | | NA | | NA | |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | 0.49 | | NA | | -- | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 30.94 | | 41.21 | | 28.07 | | 120.94 | | 89.205 | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | |
| Antimony | 14 | | NA | 10.3 | -- | | NA | | NA | 12.6 | -- | |
| Arsenic | 20 | | NA | 1.7 | -- | | NA | | NA | 2.1 | -- | |
| Beryllium | 2 | | NA | 0.86 | -- | | NA | | NA | 1.0 | -- | |
| Cadmium | 39 | | NA | 0.86 | -- | | NA | | NA | 1.0 | -- | |
| Chromium | 120000[2] | | NA | 1.7 | -- | | NA | | NA | | 5.4 | |
| Copper | 600 | | NA | 4.3 | -- | | NA | | NA | 5.2 | -- | |
| Iron | NC | | NA | | NA | | NA | | NA | | 3130 | |
| Lead | 400 | | NA | | 1.3 J | | NA | | NA | | 7.2 | |
| Mercury | 14 | | NA | 0.0076 | -- J | | NA | | NA | | 0.024 | |
| Nickel | 250 | | NA | 6.8 | -- | | NA | | NA | 8.4 | -- | |
| Selenium | 63 | | NA | 0.86 | -- J | | NA | | NA | 1.0 | -- | |
| Silver | 110 | | NA | 1.7 | -- | | NA | | NA | 2.1 | -- | |
| Thallium | 2 | | NA | 1.7 | -- | | NA | | NA | **2.1** | -- | |
| Zinc | 1500 | | NA | | 8.8 | | NA | | NA | | 35.5 | |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA | |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

3 Ingestion exposure pathway criteria

4 Inhalation exposure pathway criteria

**bold** MDL exceeds Unrestricted Use Criteria

MDL Method Detection Limit

CONC Concentration

Q Qualifier

-- Not Detected

J Estimated value

NC No criteria established

NA Not analyzed

* Duplicate of previous sample

B Analyte detected in blank

N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16B | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16B-2AD* | | SS-16C-1A | | SS-16C-1B | | SS-16C-2A | | SS-16C-2B |
| LAB ID | | | 94476-026<br>993119A-09 | | 94462-019<br>993084A-17 | | 94476-023<br>993119A-06 | | 94462-018<br>993084A-16 | | 94462-017<br>993084A-15 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/16/1999 | | 11/16/1999 | | 11/16/1999 | | 11/16/1999 | | 11/16/1999 |
| DEPTH | | | 0.0-2.0 | | 0.0-2.0 | | 15.5-16.0 | | 0.0-2.0 | | 15.5-16.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 178 | | 78 | 24 | -- | | 71 | 23 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| Benzene | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Bromodichloromethane | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Bromoform | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Bromomethane | 1 | **1.200** | -- | **1.200** | -- | **1.400** | -- | **1.300** | -- | **1.400** | -- |
| 2-Butanone | 50 | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| Carbon Disulfide | NC | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Carbon Tetrachloride | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Chlorobenzene | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Chlorodibromomethane | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Chloroethane | NC | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| Chloroform | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Chloromethane | 10 | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| 1,1-Dichloroethane | 10 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,2-Dichloroethane | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,1-Dichloroethene | 8 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,2-Dichloropropane | 10 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Ethylbenzene | 100 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 2-Hexanone | NC | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| Methylene Chloride | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Styrene | 23 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Tetrachloroethene | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Toluene | 500 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,1,1-Trichloroethane | 50 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| 1,1,2-Trichloroethane | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Trichloroethylene | 1 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| Vinyl Chloride | 2 | 1.200 | -- | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- |
| Xylenes (Total) | 67 | 0.630 | -- | 0.630 | -- | 0.750 | -- | 0.650 | -- | 0.730 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | 0.97 J | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | 0.97 | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Chlorophenol | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Methylphenol | 2800 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 4-Methylphenol | 2800 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Nitrophenol | NC | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2,4-Dimethylphenol | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2,4-Dichlorophenol | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2,4,5-Trichlorophenol | 50 | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| 2,4-Dinitrophenol | 10 | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| 4-Nitrophenol | NC | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| Pentachlorophenol | 6 | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 1,3-Dichlorobenzene | 100 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 1,4-Dichlorobenzene | 100 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 1,2-Dichlorobenzene | 50 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Hexachloroethane | 6 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Nitrobenzene | 10 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Isophorone | 50 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Naphthalene | 100 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 4-Chloroaniline | 230 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Hexachlorobutadiene | 1 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Methylnaphthalene | NC | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Hexachlorocyclopentadiene | 100 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Chloronaphthalene | NC | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| 2-Nitroaniline | NC | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |
| Dimethylphthalate | 50 | 0.340 | -- | 0.34 | -- | 0.400 | -- | 0.35 | -- | 0.39 | -- |
| Acenaphthylene | NC | 0.340 | -- | | 0.035 J | 0.400 | -- | | 0.007 J | 0.39 | -- |
| 3-Nitroaniline | NC | 1.700 | -- | 1.65 | -- | 2.000 | -- | 1.70 | -- | 1.89 | -- |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16B | | | AOC-16C | | | AOC-16C | | | AOC-16C | | | AOC-16C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16B-2AD* | | | SS-16C-1A | | | SS-16C-1B | | | SS-16C-2A | | | SS-16C-2B | | |
| LAB ID | | | 94476-026 | | | 94462-019 | | | 94476-023 | | | 94462-018 | | | 94462-017 | | |
| | | | 993119A-09 | | | 993084A-17 | | | 993119A-06 | | | 993084A-16 | | | 993084A-15 | | |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | |
| DEPTH | | | 0.0-2.0 | | | 0.0-2.0 | | | 15.5-16.0 | | | 0.0-2.0 | | | 15.5-16.0 | | |
| MATRIX | | | SOIL | | | SOIL | | | SOIL | | | SOIL | | | SOIL | | |
| UNITS | mg/kg | MDL | mg/kg | Q | MDL | mg/kg | Q | MDL | mg/kg | Q | MDL | mg/kg | Q | MDL | mg/kg | Q | |
| Acenaphthene | 100 | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Dibenzofuran | NC | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Diethylphthalate | 50 | | 0.007 | JB | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Fluorene | 100 | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| 4-Nitroaniline | NC | 1.700 | -- | | 1.65 | -- | | 2.000 | -- | | 1.70 | -- | | 1.89 | -- | | |
| N-Nitrosodiphenylamine | NC | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| 4-Bromophenyl-Phenylether | NC | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Hexachlorobenzene | 0.66 | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Phenanthrene | NC | 0.340 | -- | | | 0.022 | | 0.400 | -- | | | 0.020 | J | 0.39 | -- | | |
| Anthracene | 100 | 0.340 | -- | | | 0.037 | | 0.400 | -- | | | 0.007 | J | 0.39 | -- | | |
| Carbazole | NC | 0.340 | -- | | | 0.013 | | 0.400 | -- | | | 0.007 | J | 0.39 | -- | | |
| Di-n-Butylphthalate | 100 | | 0.035 | JB | | 0.018 | | | 0.054 | JB | | 0.027 | JB | | 0.057 | JB | |
| Fluoranthene | 100 | 0.340 | -- | | | 0.11 | | 0.400 | -- | | | 0.067 | J | 0.39 | -- | | |
| Pyrene | 100 | 0.340 | -- | | | 0.096 | | 0.400 | -- | | | 0.057 | J | 0.39 | -- | | |
| Butylbenzylphthalate | 100 | 0.340 | -- | | | 0.015 | | 0.400 | -- | | | 0.020 | J | 0.39 | -- | | |
| 3,3'-Dichlorobenzidine | 2 | 0.690 | -- | | 0.68 | -- | | 0.800 | -- | | 0.70 | -- | | 0.78 | -- | | |
| Benzo(a)Anthracene | 0.9 | 0.340 | -- | | | 0.067 | | 0.400 | -- | | | 0.028 | J | 0.39 | -- | | |
| Chrysene | 9 | 0.340 | -- | | | 0.089 | | 0.400 | -- | | | 0.038 | J | 0.39 | -- | | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.034 | JB | | 0.067 | | | 0.044 | JB | | 0.078 | JB | | 0.240 | JB | |
| Di-n-Octylphthalate | 100 | | 0.011 | JB | | 0.014 | | | 0.012 | JB | | 0.019 | JB | | 0.032 | JB | |
| Benzo(b)Fluoranthene | 0.9 | 0.340 | -- | | | 0.084 | | 0.400 | -- | | | 0.047 | J | 0.39 | -- | | |
| Benzo(k)Fluoranthene | 0.9 | 0.340 | -- | | | 0.098 | | 0.400 | -- | | | 0.052 | J | 0.39 | -- | | |
| Benzo(a)Pyrene | 0.66 | 0.340 | -- | | | 0.063 | | 0.400 | -- | | | 0.036 | J | 0.39 | -- | | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.340 | -- | | | 0.05 | | 0.400 | -- | | | 0.032 | J | 0.39 | -- | | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.340 | -- | | | 0.018 | | 0.400 | -- | | | 0.017 | J | 0.39 | -- | | |
| Benzo(g,h,i)Perylene | NC | 0.340 | -- | | | 0.052 | | 0.400 | -- | | | 0.036 | J | 0.39 | -- | | |
| Benzyl alcohol | 50 | 0.340 | -- | | 0.34 | -- | | 0.400 | -- | | 0.35 | -- | | 0.39 | -- | | |
| Benzoic Acid | NC | 1.700 | -- | | 1.65 | -- | | 2.000 | -- | | 1.70 | -- | | 1.89 | -- | | |
| **Total Non-Target SVOCs** | NC | | 7.90 | JB | | 4.80 | JB | | 7.3 | JB | | 8.52 | JB | | 14.16 | JB | |
| **Total Semi-Volatile Organic Compounds** | NC | | 7.99 | | | 5.74 | | | 7.41 | | | 9.12 | | | 14.49 | | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1221 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1232 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1242 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1248 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1254 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1260 | NC | 0.034 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1262 | NC | | NA | | | NA | | | NA | | | NA | | | NA | | |
| Aroclor-1268 | NC | | NA | | | NA | | | NA | | | NA | | | NA | | |
| **Total PCBs** | 0.49 | | -- | | | NA | | | NA | | | NA | | | NA | | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 185.99 | | | 83.74 | | | 8.38 | | | 80.12 | | | 14.49 | | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | | | | | | |
| Antimony | 14 | 12.7 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Arsenic | 20 | 2.1 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Beryllium | 2 | 1.1 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Cadmium | 39 | 1.1 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Chromium | 120000[2] | | 5.0 | | | NA | | | NA | | | NA | | | NA | | |
| Copper | 600 | 5.3 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Iron | NC | | 2790 | | | NA | | | NA | | | NA | | | NA | | |
| Lead | 400 | | 6.1 | | | NA | | | NA | | | NA | | | NA | | |
| Mercury | 14 | | 0.024 | | | NA | | | NA | | | NA | | | NA | | |
| Nickel | 250 | 8.5 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Selenium | 63 | 1.1 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Silver | 110 | 2.1 | -- | | | NA | | | NA | | | NA | | | NA | | |
| Thallium | 2 | **2.1** | -- | | | NA | | | NA | | | NA | | | NA | | |
| Zinc | 1500 | | 41.8 | | | NA | | | NA | | | NA | | | NA | | |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | | NA | | | NA | | | NA | | | NA | | |

NOTES:
1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
2 Criterion developed for trivalent chromium used for comparisons for total chromium results
3 Ingestion exposure pathway criteria
4 Inhalation exposure pathway criteria
**bold** MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample
B Analyte detected in blank
N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16C-3A | | SS-16C-3B | | SS-16C-4A | | SS-16C-4B | | SS-16C-5A |
| LAB ID | | | 94462-022 993084A-20 | | 94462-020 993084A-18 | | 94462-007 993084A-07 | | 94462-008 | | 94462-016 993084A-14 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/16/1999 | | 11/16/1999 | | 11/15/1999 | | 11/15/1999 | | 11/16/1999 |
| DEPTH | Cleanup | | 0.0-2.0 | | 15.5-16.0 | | 0.0-2.0 | | 15.5-16.0 | | 0.0-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 186 | 24 | -- | | 92 | 23 | -- | | 38 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| Benzene | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Bromodichloromethane | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Bromoform | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Bromomethane | 1 | **1.200** | -- | **1.400** | -- | **1.300** | -- | **1.400** | -- | **1.300** | -- |
| 2-Butanone | 50 | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| Carbon Disulfide | NC | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Carbon Tetrachloride | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Chlorobenzene | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Chlorodibromomethane | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Chloroethane | NC | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| Chloroform | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Chloromethane | 10 | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| 1,1-Dichloroethane | 10 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,2-Dichloroethane | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,1-Dichloroethene | 8 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,2-Dichloropropane | 10 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Ethylbenzene | 100 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 2-Hexanone | NC | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| Methylene Chloride | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Styrene | 23 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Tetrachloroethene | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Toluene | 500 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,1,1-Trichloroethane | 50 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| 1,1,2-Trichloroethane | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Trichloroethylene | 1 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| Vinyl Chloride | 2 | 1.200 | -- | 1.400 | -- | 1.300 | -- | 1.400 | -- | 1.300 | -- |
| Xylenes (Total) | 67 | 0.630 | -- | 0.750 | -- | 0.660 | -- | 0.700 | -- | 0.650 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Chlorophenol | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Methylphenol | 2800 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 4-Methylphenol | 2800 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Nitrophenol | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2,4-Dimethylphenol | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2,4-Dichlorophenol | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 4-Chloro-3-Methylphenol | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2,4,6-Trichlorophenol | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2,4,5-Trichlorophenol | 50 | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| 2,4-Dinitrophenol | 10 | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| 4-Nitrophenol | NC | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| 4,6-Dinitro-2-Methylphenol | NC | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| Pentachlorophenol | 6 | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 1,3-Dichlorobenzene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 1,4-Dichlorobenzene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 1,2-Dichlorobenzene | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Hexachloroethane | 6 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Nitrobenzene | 10 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Isophorone | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Bis(2-Chloroethoxy) Methane | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 1,2,4-Trichlorobenzene | 68 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Naphthalene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 4-Chloroaniline | 230 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Hexachlorobutadiene | 1 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Methylnaphthalene | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Hexachlorocyclopentadiene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Chloronaphthalene | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 2-Nitroaniline | NC | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |
| Dimethylphthalate | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| Acenaphthylene | NC | | 0.014 J | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- |
| 3-Nitroaniline | NC | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16C-3A | | SS-16C-3B | | SS-16C-4A | | SS-16C-4B | | SS-16C-5A | |
| LAB ID | | | 94462-022 993084A-20 | | 94462-020 993084A-18 | | 94462-007 993084A-07 | | 94462-008 | | 94462-016 993084A-14 | |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/16/1999 | | 11/16/1999 | | 11/15/1999 | | 11/15/1999 | | 11/16/1999 | |
| DEPTH | | | 0.0-2.0 | | 15.5-16.0 | | 0.0-2.0 | | 15.5-16.0 | | 0.0-2.0 | |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | |
| Acenaphthene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Dibenzofuran | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Diethylphthalate | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | | 0.005 J | 0.37 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Fluorene | 100 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| 4-Nitroaniline | NC | 1.66 | -- | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- | |
| N-Nitrosodiphenylamine | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Hexachlorobenzene | 0.66 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Phenanthrene | NC | | 0.022 J | 0.40 | -- | | 0.008 J | 0.37 | -- | 0.37 | -- | |
| Anthracene | 100 | | 0.013 J | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Carbazole | NC | | 0.009 J | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Di-n-Butylphthalate | 100 | | 0.035 JB | | 0.021 JB | | 0.023 JB | | 0.029 JB | | 0.018 JB | |
| Fluoranthene | 100 | | 0.066 J | 0.40 | -- | | 0.033 J | 0.37 | -- | | 0.016 J | |
| Pyrene | 100 | | 0.062 J | 0.40 | -- | | 0.029 J | 0.37 | -- | | 0.016 J | |
| Butylbenzylphthalate | 100 | | 0.046 J | 0.40 | -- | | 0.012 J | 0.37 | -- | | 0.013 J | |
| 3,3'-Dichlorobenzidine | 2 | 0.69 | -- | 0.79 | -- | 0.69 | -- | 0.73 | -- | 0.73 | -- | |
| Benzo(a)Anthracene | 0.9 | 0.34 | 0.032 J | 0.40 | -- | | 0.018 J | 0.37 | -- | | 0.011 J | |
| Chrysene | 9 | 0.34 | 0.049 J | 0.40 | -- | | 0.017 J | 0.37 | -- | | 0.014 J | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.260 JB | | 0.120 JB | | 0.036 JB | | 0.048 JB | | 0.067 JB | |
| Di-n-Octylphthalate | 100 | | 0.027 JB | | 0.014 JB | | 0.010 JB | | 0.009 JB | | 0.016 JB | |
| Benzo(b)Fluoranthene | 0.9 | | 0.063 J | 0.40 | -- | | 0.020 J | 0.37 | -- | | 0.018 J | |
| Benzo(k)Fluoranthene | 0.9 | | 0.073 J | 0.40 | -- | | 0.026 J | 0.37 | -- | | 0.022 J | |
| Benzo(a)Pyrene | 0.66 | | 0.046 J | 0.40 | -- | | 0.019 J | 0.37 | -- | | 0.013 J | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | 0.037 J | 0.40 | -- | | 0.016 J | 0.37 | -- | | 0.012 J | |
| Dibenzo(a,h)Anthracene | 0.66 | | 0.012 J | 0.40 | -- | | 0.008 J | 0.37 | -- | 0.37 | -- | |
| Benzo(g,h,i)Perylene | NC | | 0.033 J | 0.40 | -- | | 0.013 J | 0.37 | -- | | 0.012 J | |
| Benzyl alcohol | 50 | 0.34 | -- | 0.40 | -- | 0.35 | -- | 0.37 | -- | 0.37 | -- | |
| Benzoic Acid | NC | | 0.031 J | 1.92 | -- | 1.68 | -- | 1.78 | -- | 1.78 | -- | |
| **Total Non-Target SVOCs** | NC | | 10.12 JB | | 12.01 JB | | 10.07 JB | | 11.07 JB | | 9.23 JB | |
| **Total Semi-Volatile Organic Compounds** | NC | | 11.05 | | 12.17 | | 10.36 | | 11.16 | | 9.48 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1221 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1232 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1242 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1248 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1254 | NC | 0.0334 | 0.046 | | NA | | 0.0420 | | NA | | NA | |
| Aroclor-1260 | NC | 0.0334 | -- | | NA | 0.0348 | -- | | NA | | NA | |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | 0.49 | | 0.046 | | NA | | 0.042 | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 197.10 | | 12.17 | | 102.40 | | 11.16 | | 47.48 | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | |
| Antimony | 14 | 12.6 | -- | | NA | 12.8 | -- | | NA | | NA | |
| Arsenic | 20 | 2.1 | -- | | NA | 2.1 | -- | | NA | | NA | |
| Beryllium | 2 | 1.0 | -- | | NA | 1.1 | -- | | NA | | NA | |
| Cadmium | 39 | 1.0 | -- | | NA | 1.1 | -- | | NA | | NA | |
| Chromium | 120000[2] | | 50.5 | | NA | | 4.8 | | NA | | NA | |
| Copper | 600 | | 34.7 | | NA | | 7.0 | | NA | | NA | |
| Iron | NC | | 6120 | | NA | | 2340 | | NA | | NA | |
| Lead | 400 | | 12.1 | | NA | | 6.1 | | NA | | NA | |
| Mercury | 14 | | 0.018 | | NA | | 0.015 | | NA | | NA | |
| Nickel | 250 | | 40.4 | | NA | 8.5 | -- | | NA | | NA | |
| Selenium | 63 | 1.0 | -- | | NA | 1.1 | -- | | NA | | NA | |
| Silver | 110 | 2.1 | -- | | NA | 2.1 | -- | | NA | | NA | |
| Thallium | 2 | 0.12 | -- | | NA | **2.1** | -- | | NA | | NA | |
| Zinc | 1500 | | 126 | | NA | | 29.9 | | NA | | NA | |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | | NA | | NA | |

NOTES:

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

3 Ingestion exposure pathway criteria

4 Inhalation exposure pathway criteria

**bold** MDL exceeds Unrestricted Use Criteria

MDL Method Detection Limit

CONC Concentration

Q Qualifier

-- Not Detected

J Estimated value

NC No criteria established

NA Not analyzed

* Duplicate of previous sample

B Analyte detected in blank

N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16D | | AOC-16D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16C-5B | | SS-16C-6A | | SS-16C-6B | | SS-16D-1A | | DUP* |
| LAB ID | | | 94462-021 993084A-19 | | 94462-005 993084A-05 | | 94462-006 993094A-06 | | 93524006 | | 93524015 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 11/16/1999 | | 11/15/1999 | | 11/15/1999 | | 09/02/1999 | | 09/02/1999 |
| DEPTH | | | 15.5-16.0 | | 0.0-2.0 | | 5.5-6.0 | | 5.0-5.5 | | 5.0-5.5 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 24 | -- | | 34 | 22 | -- | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| Benzene | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Bromodichloromethane | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Bromoform | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Bromomethane | 1 | **1.400** | -- | **1.200** | -- | **1.300** | -- | | NA | | NA |
| 2-Butanone | 50 | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| Carbon Disulfide | NC | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Carbon Tetrachloride | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Chlorobenzene | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Chlorodibromomethane | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Chloroethane | NC | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| Chloroform | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Chloromethane | 10 | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| 1,1-Dichloroethane | 10 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,2-Dichloroethane | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,1-Dichloroethene | 8 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,2-Dichloropropane | 10 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Ethylbenzene | 100 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 2-Hexanone | NC | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| Methylene Chloride | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Styrene | 23 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Tetrachloroethene | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Toluene | 500 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Trichloroethylene | 1 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| Vinyl Chloride | 2 | 1.400 | -- | 1.200 | -- | 1.300 | -- | | NA | | NA |
| Xylenes (Total) | 67 | 0.750 | -- | 0.640 | -- | 0.700 | -- | | NA | | NA |
| **Total Non-Target VOCs** | NC | | -- | | -- | | -- | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | -- | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Chlorophenol | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Methylphenol | 2800 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 4-Methylphenol | 2800 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Nitrophenol | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2,4-Dimethylphenol | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2,4-Dichlorophenol | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| 2,4-Dinitrophenol | 10 | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| 4-Nitrophenol | NC | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| Pentachlorophenol | 6 | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Hexachloroethane | 6 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Nitrobenzene | 10 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Isophorone | 50 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Naphthalene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 4-Chloroaniline | 230 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Hexachlorobutadiene | 1 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Methylnaphthalene | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Chloronaphthalene | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| 2-Nitroaniline | NC | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |
| Dimethylphthalate | 50 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA |
| Acenaphthylene | NC | 0.40 | -- | | 0.008 J | 0.37 | -- | | NA | | NA |
| 3-Nitroaniline | NC | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16C | | AOC-16C | | AOC-16C | | AOC-16D | | AOC-16D | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16C-5B | | SS-16C-6A | | SS-16C-6B | | SS-16D-1A | | DUP* | |
| LAB ID | | | 94462-021<br>993084A-19 | | 94462-005<br>993084A-05 | | 94462-006<br>993094A-06 | | 93524006 | | 93524015 | |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 11/16/1999 | | 11/15/1999 | | 11/15/1999 | | 09/02/1999 | | 09/02/1999 | |
| DEPTH | Cleanup | | 15.5-16.0 | | 0.0-2.0 | | 5.5-6.0 | | 5.0-5.5 | | 5.0-5.5 | |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | |
| Acenaphthene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Dibenzofuran | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Diethylphthalate | 50 | 0.40 | -- | 0.34 | -- | | 0.008 J | | NA | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Fluorene | 100 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| 4-Nitroaniline | NC | 1.95 | -- | 1.66 | -- | 1.78 | -- | | NA | | NA | |
| N-Nitrosodiphenylamine | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| 4-Bromophenyl-Phenylether | NC | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Hexachlorobenzene | 0.66 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Phenanthrene | NC | 0.40 | -- | | 0.027 J | 0.37 | -- | | NA | | NA | |
| Anthracene | 100 | 0.40 | -- | | 0.009 J | 0.37 | -- | | NA | | NA | |
| Carbazole | NC | 0.40 | -- | | 0.007 J | 0.37 | -- | | NA | | NA | |
| Di-n-Butylphthalate | 100 | | 0.028 JB | | 0.035 JB | | 0.029 JB | | NA | | NA | |
| Fluoranthene | 100 | 0.40 | -- | 0.34 | 0.076 J | 0.37 | -- | | NA | | NA | |
| Pyrene | 100 | 0.40 | -- | 0.34 | 0.066 J | 0.37 | -- | | NA | | NA | |
| Butylbenzylphthalate | 100 | 0.40 | -- | 0.34 | 0.033 J | 0.37 | -- | | NA | | NA | |
| 3,3'-Dichlorobenzidine | 2 | 0.81 | -- | 0.69 | -- | 0.73 | -- | | NA | | NA | |
| Benzo(a)Anthracene | 0.9 | 0.40 | -- | 0.34 | 0.035 J | 0.37 | -- | | NA | | NA | |
| Chrysene | 9 | 0.40 | -- | 0.34 | 0.042 J | 0.37 | -- | | NA | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | 0.028 JB | | 0.120 JB | | 0.054 JB | | NA | | NA | |
| Di-n-Octylphthalate | 100 | | 0.02 JB | | 0.015 JB | | 0.007 JB | | NA | | NA | |
| Benzo(b)Fluoranthene | 0.9 | 0.40 | -- | 0.34 | 0.047 J | 0.37 | -- | | NA | | NA | |
| Benzo(k)Fluoranthene | 0.9 | 0.40 | -- | 0.34 | 0.053 J | 0.37 | -- | | NA | | NA | |
| Benzo(a)Pyrene | 0.66 | 0.40 | -- | 0.34 | 0.040 J | 0.37 | -- | | NA | | NA | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | 0.40 | -- | 0.34 | 0.042 J | 0.37 | -- | | NA | | NA | |
| Dibenzo(a,h)Anthracene | 0.66 | 0.40 | -- | 0.34 | 0.014 J | 0.37 | -- | | NA | | NA | |
| Benzo(g,h,i)Perylene | NC | 0.40 | -- | 0.34 | 0.038 J | 0.37 | -- | | NA | | NA | |
| Benzyl alcohol | 50 | 0.40 | -- | 0.34 | -- | 0.37 | -- | | NA | | NA | |
| Benzoic Acid | NC | 1.95 | -- | | 0.34 J | | 0.015 J | | NA | | NA | |
| **Total Non-Target SVOCs** | NC | | 12.16 JB | | 10.64 JB | | 12.52 JB | | NA | | NA | |
| **Total Semi-Volatile Organic Compounds** | NC | | 12.23 | | 11.69 | | 12.64 | | NA | | NA | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 12.23 | | 45.69 | | 12.64 | | NA | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | |
| Antimony | 14 | | NA | | NA | | NA | | NA | | NA | |
| Arsenic | 20 | | NA | | NA | | NA | | NA | | NA | |
| Beryllium | 2 | | NA | | NA | | NA | | NA | | NA | |
| Cadmium | 39 | | NA | | NA | | NA | | NA | | NA | |
| Chromium | 120000[2] | | NA | | NA | | NA | | 5.14 | | 3.91 | |
| Copper | 600 | | NA | | NA | | NA | | NA | | NA | |
| Iron | NC | | NA | | NA | | NA | | NA | | NA | |
| Lead | 400 | | NA | | NA | | NA | | NA | | NA | |
| Mercury | 14 | | NA | | NA | | NA | | NA | | NA | |
| Nickel | 250 | | NA | | NA | | NA | | NA | | NA | |
| Selenium | 63 | | NA | | NA | | NA | | NA | | NA | |
| Silver | 110 | | NA | | NA | | NA | | NA | | NA | |
| Thallium | 2 | | NA | | NA | | NA | | NA | | NA | |
| Zinc | 1500 | | NA | | NA | | NA | | NA | | NA | |
| Hexavalent Chromium | 240[3]/20[4] | | NA | | NA | | NA | 0.49 | -- | 0.44 | -- | |

NOTES:
1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)
2 Criterion developed for trivalent chromium used for comparisons for total chromium results
3 Ingestion exposure pathway criteria
4 Inhalation exposure pathway criteria
**bold** MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample
B Analyte detected in blank
N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16D | | AOC-16D | | AOC-16D | | AOC-16E | | AOC-16E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16D-2A | | SS-16D-3A | | SS-16D-4A | | SS-16E-1A | | SS-16E-2A |
| LAB ID | | | 93524014 | | 93524016 | | 93520001 | | 93531001 | | 93536001 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 |
| DEPTH | Cleanup Criteria[1] | | 14.25-14.75 | | 13.0-13.5 | | 5.5-6.0 | | 17.5-18.0 | | 15.5-16.0 |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16D | | AOC-16D | | AOC-16D | | AOC-16E | | AOC-16E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16D-2A | | SS-16D-3A | | SS-16D-4A | | SS-16E-1A | | SS-16E-2A |
| LAB ID | | | 93524014 | | 93524016 | | 93520001 | | 93531001 | | 93536001 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 | | 09/02/1999 |
| DEPTH | Cleanup | | 14.25-14.75 | | 13.0-13.5 | | 5.5-6.0 | | 17.5-18.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| Fluorene | 100 | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 100 | | NA | | NA | | NA | | NA | | NA |
| Carbazole | NC | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 100 | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Chrysene | 9 | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | | NA |
| Benzyl alcohol | 50 | | NA | | NA | | NA | | NA | | NA |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | NC | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | NA | | NA | | NA | | NA | | NA |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | 14 | | NA | | NA | | NA | | NA | | NA |
| Arsenic | 20 | | NA | | NA | | NA | | NA | | NA |
| Beryllium | 2 | | NA | | NA | | NA | | NA | | NA |
| Cadmium | 39 | | NA | | NA | | NA | | NA | | NA |
| Chromium | 120000[2] | | 20.1 | | 2.43 J | | 3.9 J | | 1.6 J | | 12.8 J |
| Copper | 600 | | NA | | NA | | NA | | NA | | NA |
| Iron | NC | | NA | | NA | | NA | | NA | | NA |
| Lead | 400 | | NA | | NA | | NA | | NA | | NA |
| Mercury | 14 | | NA | | NA | | NA | | NA | | NA |
| Nickel | 250 | | NA | | NA | | NA | | NA | | NA |
| Selenium | 63 | | NA | | NA | | NA | | NA | | NA |
| Silver | 110 | | NA | | NA | | NA | | NA | | NA |
| Thallium | 2 | | NA | | NA | | NA | | NA | | NA |
| Zinc | 1500 | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 240[3]/20[4] | 0.46 | -- | 0.46 | -- | 0.44 | -- | 0.48 | -- | 0.46 | -- |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

[3] Ingestion exposure pathway criteria

[4] Inhalation exposure pathway criteria

**bold** MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample
B Analyte detected in blank
N Negated by data validation

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16E | | AOC-16E | | AOC-16F | | AOC-16F |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16E-3A | | SS-16E-4A | | SS-16F-1A | | SS-16F-2A |
| LAB ID | | | 93531002 | | 93536002 | | 93520002 | | 93524017 |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil | | 09/02/1999 | | 09/03/1999 | | 09/02/1999 | | 09/02/1999 |
| DEPTH | Cleanup | | 19.0-19.5 | | 18.25-18.75 | | 17.0-17.5 | | 15.0-15.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | NA | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | |
| Phenol | 50 | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 10 | | NA | | NA | | NA | | NA |
| 2-Methylphenol | 2800 | | NA | | NA | | NA | | NA |
| 4-Methylphenol | 2800 | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 10 | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 10 | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | 100 | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 10 | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 50 | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 10 | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA |
| Pentachlorophenol | 6 | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.66 | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 100 | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 50 | | NA | | NA | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 10 | | NA | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 0.66 | | NA | | NA | | NA | | NA |
| Hexachloroethane | 6 | | NA | | NA | | NA | | NA |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA |
| Isophorone | 50 | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | 68 | | NA | | NA | | NA | | NA |
| Naphthalene | 100 | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | 230 | | NA | | NA | | NA | | NA |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | 100 | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA |
| Dimethylphthalate | 50 | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA |

TABLE 5 - AOC-16
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16E | | AOC-16E | | AOC-16F | | AOC-16F | |
|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16E-3A | | SS-16E-4A | | SS-16F-1A | | SS-16F-2A | |
| LAB ID | | | 93531002 | | 93536002 | | 93520002 | | 93524017 | |
| SAMPLE COLLECTION DATE | Unrestricted Use Soil Cleanup Criteria[1] | | 09/02/1999 | | 09/03/1999 | | 09/02/1999 | | 09/02/1999 | |
| DEPTH | | | 19.0-19.5 | | 18.25-18.75 | | 17.0-17.5 | | 15.0-15.5 | |
| MATRIX | | | SOIL | | SOIL | | SOIL | | SOIL | |
| UNITS | mg/kg | MDL | mg/kg | Q | mg/kg | Q | mg/kg | Q | mg/kg | Q |
| Acenaphthene | 100 | | NA | | NA | | NA | | NA | |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 1 | | NA | | NA | | NA | | NA | |
| Diethylphthalate | 50 | | NA | | NA | | NA | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | |
| Fluorene | 100 | | NA | | NA | | NA | | NA | |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | |
| N-Nitrosodiphenylamine | NC | | NA | | NA | | NA | | NA | |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | |
| Hexachlorobenzene | 0.66 | | NA | | NA | | NA | | NA | |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | |
| Anthracene | 100 | | NA | | NA | | NA | | NA | |
| Carbazole | NC | | NA | | NA | | NA | | NA | |
| Di-n-Butylphthalate | 100 | | NA | | NA | | NA | | NA | |
| Fluoranthene | 100 | | NA | | NA | | NA | | NA | |
| Pyrene | 100 | | NA | | NA | | NA | | NA | |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | |
| 3,3'-Dichlorobenzidine | 2 | | NA | | NA | | NA | | NA | |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | | NA | | NA | |
| Chrysene | 9 | | NA | | NA | | NA | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 49 | | NA | | NA | | NA | | NA | |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | | NA | | NA | |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | | NA | | NA | |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | | NA | | NA | |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | | NA | | NA | |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | |
| Benzyl alcohol | 50 | | NA | | NA | | NA | | NA | |
| Benzoic Acid | NC | | NA | | NA | | NA | | NA | |
| **Total Non-Target SVOCs** | NC | | NA | | NA | | NA | | NA | |
| **Total Semi-Volatile Organic Compounds** | NC | | NA | | NA | | NA | | NA | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | NA | | NA | | NA | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | 14 | | NA | | NA | | NA | | NA | |
| Arsenic | 20 | | NA | | NA | | NA | | NA | |
| Beryllium | 2 | | NA | | NA | | NA | | NA | |
| Cadmium | 39 | | NA | | NA | | NA | | NA | |
| Chromium | 120000[2] | | 3.31 | J | 4.89 | J | 2.46 | J | 2.24 | J |
| Copper | 600 | | NA | | NA | | NA | | NA | |
| Iron | NC | | NA | | NA | | NA | | NA | |
| Lead | 400 | | NA | | NA | | NA | | NA | |
| Mercury | 14 | | NA | | NA | | NA | | NA | |
| Nickel | 250 | | NA | | NA | | NA | | NA | |
| Selenium | 63 | | NA | | NA | | NA | | NA | |
| Silver | 110 | | NA | | NA | | NA | | NA | |
| Thallium | 2 | | NA | | NA | | NA | | NA | |
| Zinc | 1500 | | NA | | NA | | NA | | NA | |
| Hexavalent Chromium | 240[3]/20[4] | 0.45 | -- | 0.44 | -- | 0.43 | -- | 0.43 | -- | |

**NOTES:**

1 defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

2 Criterion developed for trivalent chromium used for comparisons for total chromium results

3 Ingestion exposure pathway criteria

4 Inhalation exposure pathway criteria

**bold** MDL exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
NC No criteria established
NA Not analyzed
* Duplicate of previous sample
B Analyte detected in blank
N Negated by data validation

**TABLE 5 - AOC-17**
**ANALYTICAL RESULTS - SOIL**
**OYSTER CREEK NUCLEAR GENERATING STATION**

| AREA OF CONCERN | | | AOC-17C | | AOC-17C | | AOC-17G | | AOC-17G | | AOC-17G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-17C-1A | | SS-17C-2A | | SS-17G-1A | | SS-17G-2A | | SS-17G-3A |
| LAB ID | Unrestricted Use | | 94492-012<br>94657-002 | | 94492-011 | | 94508-008 | | 94508-001 | | 94508-002 |
| SAMPLE COLLECTION DATE | Soil | | 11/17/1999 | | 11/17/1999 | | 11/18/1999 | | 11/18/1999 | | 11/18/1999 |
| DEPTH | Cleanup | | 5.5-6.0 | | 5.5-6.0 | | 18.0-18.5 | | 15.25-15.75 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 20 | -- | 21 | -- | | 27 | 23 | -- | | 30 |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 100 | | NA | | NA | | NA | | NA | | NA |
| Benzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromoform | 1 | | NA | | NA | | NA | | NA | | NA |
| Bromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA | | NA | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloroethane | NC | | NA | | NA | | NA | | NA | | NA |
| Chloroform | 1 | | NA | | NA | | NA | | NA | | NA |
| Chloromethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA | | NA | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA | | NA | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA | | NA | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA | | NA | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA | | NA | | NA | | NA |
| Styrene | 23 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | | NA |
| Toluene | 500 | | NA | | NA | | NA | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA | | NA | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA | | NA | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA | | NA | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA | | NA | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA | | NA | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1221 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1232 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1242 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1248 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1254 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1260 | NC | 0.0337 | -- | 0.0339 | -- | | NA | | NA | | NA |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | -- | | -- | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | 27 | | -- | | 30 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-17
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-17G | | AOC-17G | | AOC-17G | | AOC-17G | | AOC-17G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-16C-2B (SS-17G-4A) | | SS-16C-5B (SS-17G-4A) | | SS-17G-6A | | SS-17G-6AD* | | SS-17G-7A |
| LAB ID | Unrestricted Use | | 94462-017 993084A-15 | | 94462-021 993084A-19 | | 94508-006 | | 94508-007 | | 94508-004 |
| SAMPLE COLLECTION DATE | Soil | | 11/16/1999 | | 11/16/1999 | | 11/18/1999 | | 11/18/1999 | | 11/18/1999 |
| DEPTH | Cleanup | | 15.5-16.0 | | 15.5-16.0 | | 15.5-16.0 | | 15.5-16.0 | | 15.5-16.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | 23 | -- | 24 | -- | 23 | -- | 33 | -- | | 5600 |
| **Volatile Organic Compounds** | | | | | -- | | | | | | |
| Acetone | 100 | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| Benzene | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Bromodichloromethane | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Bromoform | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Bromomethane | 1 | **1.400** | -- | **1.400** | -- | | NA | | NA | **1.200** | -- |
| 2-Butanone | 50 | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| Carbon Disulfide | NC | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Carbon Tetrachloride | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Chlorobenzene | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Chlorodibromomethane | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Chloroethane | NC | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| Chloroform | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Chloromethane | 10 | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| 1,1-Dichloroethane | 10 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,2-Dichloroethane | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,1-Dichloroethene | 8 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Cis-1,2-Dichloroethene | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Trans-1,2-Dichloroethene | 50 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,2-Dichloropropane | 10 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,3-Dichloropropene (Total) | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Ethylbenzene | 100 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 2-Hexanone | NC | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| 4-Methyl-2-Pentanone | 50 | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| Methylene Chloride | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Styrene | 23 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,1,2,2-Tetrachloroethane | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Tetrachloroethene | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Toluene | 500 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,1,1-Trichloroethane | 50 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| 1,1,2-Trichloroethane | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Trichloroethylene | 1 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| Vinyl Chloride | 2 | 1.400 | -- | 1.400 | -- | | NA | | NA | 1.200 | -- |
| Xylenes (Total) | 67 | 0.730 | -- | 0.750 | -- | | NA | | NA | 0.640 | -- |
| **Total Non-Target VOCs** | NC | | -- | | -- | | NA | | NA | | -- |
| **Total Volatile Organic Compounds** | 1000 | | -- | | -- | | NA | | NA | | -- |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1221 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1232 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1242 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1248 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1254 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1260 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1262 | NC | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | 0.49 | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | -- | | -- | | -- | | -- | | 5600 |

NOTES:
[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99
**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-17
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-17G | | AOC-17H |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-17G-8A | | SS-17H-1A |
| LAB ID | Unrestricted Use | | 94508-005 | | 94476-028 |
| SAMPLE COLLECTION DATE | Soil | | 11/18/1999 | | 11/16/1999 |
| DEPTH | Cleanup | | 16.0-16.5 | | 3.0-3.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 35 | | 83 |
| **Volatile Organic Compounds** | | | | | |
| Acetone | 100 | | NA | | NA |
| Benzene | 1 | | NA | | NA |
| Bromodichloromethane | 1 | | NA | | NA |
| Bromoform | 1 | | NA | | NA |
| Bromomethane | 1 | | NA | | NA |
| 2-Butanone | 50 | | NA | | NA |
| Carbon Disulfide | NC | | NA | | NA |
| Carbon Tetrachloride | 1 | | NA | | NA |
| Chlorobenzene | 1 | | NA | | NA |
| Chlorodibromomethane | 1 | | NA | | NA |
| Chloroethane | NC | | NA | | NA |
| Chloroform | 1 | | NA | | NA |
| Chloromethane | 10 | | NA | | NA |
| 1,1-Dichloroethane | 10 | | NA | | NA |
| 1,2-Dichloroethane | 1 | | NA | | NA |
| 1,1-Dichloroethene | 8 | | NA | | NA |
| Cis-1,2-Dichloroethene | 1 | | NA | | NA |
| Trans-1,2-Dichloroethene | 50 | | NA | | NA |
| 1,2-Dichloropropane | 10 | | NA | | NA |
| 1,3-Dichloropropene (Total) | 1 | | NA | | NA |
| Ethylbenzene | 100 | | NA | | NA |
| 2-Hexanone | NC | | NA | | NA |
| 4-Methyl-2-Pentanone | 50 | | NA | | NA |
| Methylene Chloride | 1 | | NA | | NA |
| Styrene | 23 | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA |
| Tetrachloroethene | 1 | | NA | | NA |
| Toluene | 500 | | NA | | NA |
| 1,1,1-Trichloroethane | 50 | | NA | | NA |
| 1,1,2-Trichloroethane | 1 | | NA | | NA |
| Trichloroethylene | 1 | | NA | | NA |
| Vinyl Chloride | 2 | | NA | | NA |
| Xylenes (Total) | 67 | | NA | | NA |
| **Total Non-Target VOCs** | NC | | NA | | NA |
| **Total Volatile Organic Compounds** | 1000 | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | |
| Aroclor-1016 | NC | | NA | | NA |
| Aroclor-1221 | NC | | NA | | NA |
| Aroclor-1232 | NC | | NA | | NA |
| Aroclor-1242 | NC | | NA | | NA |
| Aroclor-1248 | NC | | NA | | NA |
| Aroclor-1254 | NC | | NA | | NA |
| Aroclor-1260 | NC | | NA | | NA |
| Aroclor-1262 | NC | | NA | | NA |
| Aroclor-1268 | NC | | NA | | NA |
| **Total PCBs** | 0.49 | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 35 | | 83 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 5 - AOC-18
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-18B | | AOC-18B | | AOC-18B |
|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-18B-1A | | SS-18B-2A | | SS-18B-2B |
| LAB ID | Unrestricted | | 993119A-01 | | 993119A-02 | | 993119A-03 |
| | Use | | | | 993369A-02 | | 993369A-03 |
| SAMPLE COLLECTION DATE | Soil | | 11/16/1999 | | 11/16/1999 | | 11/16/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 1.5-2.0 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **INORGANIC COMPOUNDS** | | | | | | | |
| **Metals** | | | | | | | |
| Antimony | 14 | 12.6 | -- | 12.4 | -- | | **22.9** |
| Arsenic | 20 | 2.1 | -- | 2.1 | -- | | 2.3 |
| Beryllium | 2 | 1.0 | -- | 1.0 | -- | 1.1 | -- |
| Cadmium | 39 | 1.0 | -- | 1.0 | -- | 1.1 | -- |
| Chromium | 120000[2] | | 8.0 | | 4.1 | | 8.5 |
| Copper | 600 | | 8.3 | 5.2 | -- | 5.3 | -- |
| Iron | NC | | 4850 | | 1230 | | 8930 |
| Lead | 400 | | 5.6 | | 1.0 | | 5.7 |
| Mercury | 14 | | 0.030 | 0.0072 | -- | | 0.014 |
| Nickel | 250 | 8.4 | -- | 8.2 | -- | 8.6 | -- |
| Selenium | 63 | 1.0 | -- | 1.0 | -- | 1.1 | -- |
| Silver | 110 | 2.1 | -- | 2.1 | -- | 2.1 | -- |
| Thallium | 2 | **2.1** | -- | 0.097 | -- | | 0.98 |
| Zinc | 1500 | | 27.6 | | 31.1 | | **1790** |

| AREA OF CONCERN | | | AOC-18B | | AOC-18B |
|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | | | SS-18B-3A | | SS-18B-4A |
| LAB ID | Unrestricted | | 993119A-04 | | 993119A-05 |
| | Use | | 993369A-03 | | |
| SAMPLE COLLECTION DATE | Soil | | 11/16/1999 | | 11/16/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q |
| **INORGANIC COMPOUNDS** | | | | | |
| **Metals** | | | | | |
| Antimony | 14 | 13.2 | -- | 12.6 | -- |
| Arsenic | 20 | 2.2 | -- | 2.1 | -- |
| Beryllium | 2 | 1.1 | -- | 1.0 | -- |
| Cadmium | 39 | 1.1 | -- | 1.0 | -- |
| Chromium | 120000[2] | | 16.7 | | 6.4 |
| Copper | 600 | | 121 | | 19.0 |
| Iron | NC | | 31700 | | 6560 |
| Lead | 400 | | 2.2 | | 6.8 |
| Mercury | 14 | 0.0075 | -- | | 0.022 |
| Nickel | 250 | | 39 | 8.4 | -- |
| Selenium | 63 | 1.1 | -- | 1 | -- |
| Silver | 110 | 2.2 | -- | 2.1 | -- |
| Thallium | 2 | | 0.78 B | **2.1** | -- |
| Zinc | 1500 | | 48.5 | | 35.5 |

NOTES:

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

[2] Criterion developed for trivalent chromium used for comparisons for total chromium results

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
B Analyte detected in blank
NC No criteria established
NA Not analyzed

TABLE 5 - AOC-19
ANALYTICAL RESULTS - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-19A | | AOC-19B | | AOC-19D | | AOC-19D |
|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | Unrestricted | | SS-19A-1A | | SS-19B-1A | | SS-19D-1A | | SS-19D-2A |
| LAB ID | Use | | 94476-029 | | 94476-030 | | 94611-002 | | 94611-003 |
| SAMPLE COLLECTION DATE | Soil | | 11/16/1999 | | 11/16/1999 | | 11/30/1999 | | 11/30/1999 |
| DEPTH | Cleanup | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 | | 0.0-0.5 |
| MATRIX | Criteria[1] | | SOIL | | SOIL | | SOIL | | SOIL |
| UNITS | mg/kg | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q | MDL | mg/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 10000 | | 33 | | 37 | | 340 | | 270 |
| **Semi-Volatile Organic Compounds** | | | | | | | | | |
| Naphthalene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Acenaphthylene | NC | | NA | | NA | 0.430 | -- | | NA |
| Acenaphthene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Fluorene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Phenanthrene | NC | | NA | | NA | 0.430 | -- | | NA |
| Anthracene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Fluoranthene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Pyrene | 100 | | NA | | NA | 0.430 | -- | | NA |
| Benzo(a)Anthracene | 0.9 | | NA | | NA | 0.430 | -- | | NA |
| Chrysene | 9 | | NA | | NA | 0.430 | -- | | NA |
| Benzo(b)Fluoranthene | 0.9 | | NA | | NA | 0.430 | -- | | NA |
| Benzo(k)Fluoranthene | 0.9 | | NA | | NA | 0.430 | -- | | NA |
| Benzo(a)Pyrene | 0.66 | | NA | | NA | 0.430 | -- | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.9 | | NA | | NA | 0.430 | -- | | NA |
| Dibenzo(a,h)Anthracene | 0.66 | | NA | | NA | 0.430 | -- | | NA |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | 0.430 | -- | | NA |
| **Total Semi-Volatile Organic Compounds** | | | NA | | NA | | -- | | NA |
| **TOTAL ORGANIC COMPOUNDS** | 10000 | | 33 | | 37 | | 340 | | 270 |

**NOTES:**

[1] defined as the most stringent of the Residential Direct Contact, Non-Residential Direct Contact or Impact to Groundwater Soil Cleanup Criteria (last revised 5/12/99)

**bold** Analyte exceeds Unrestricted Use Criteria
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
NC No criteria established
NA Not analyzed

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | . | | AOC-1A | | AOC-1A | | AOC-1G | | | AOC-1G (Geoprobe) | | | AOC-1G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1A-1A | | GW-1A-2A | | GW-1G-1A | | | GW-1G-1A | | | GW-1G-2A | |
| LAB ID | GWQS | | 94896-001 | | 94896-002 | | 94896-003 | | | 00061-001 | | | 00061-003 | |
| SAMPLE COLLECTION DATE | | | 12/21/1999 | | 12/21/1999 | | 12/21/1999 | | | 01/05/2000 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | | NA | | | NA | | | NA | | 0.37 | -- | | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | | 0.91 | -- | | 0.91 | -- | | | 2.6 | | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | | | 1.2 | | 0.37 | -- | |
| Acetone | 700 | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | | 9.4 | |
| Benzene | 1 | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | | 0.56 | -- | | 0.56 | -- | | | 8.3 | | 0.56 | -- | |
| Carbon Tetrachloride | 2 | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | |
| Methyl tertiary-butyl ether | 70 | | NA | | | NA | | | **1000** | J | | **680** | | | **120** | |
| Methylene Chloride | 3 | | | N | | | N | | | N | | 1.3 | | | 1.2 | |
| Styrene | 100 | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | |
| Tertiary-butyl alcohol | 500 TBC | | NA | | | NA | | | 160 | | | 210 | | | 29 | |
| Tetrachloroethene | 1 | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | | 1.2 | J |
| Trichloroethene | 1 | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | |
| Xylenes (Total) | 1000 | 1.5 | -- | | 1.5 | -- | | | 1.4 | J | 1.5 | -- | | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | -- | | | -- | | | 31 | J | | 74 | J | | -- | |
| **Total Volatile Organic Compounds** | NC | | -- | | | -- | | | 1192.4 | | | 977.4 | | | 160.8 | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | | | NA | | | NA | |
| 1,2-Dichlorobenzene | 600 | 0.61 | -- | | 0.61 | -- | | 0.61 | -- | | | NA | | | NA | |
| 1,3-Dichlorobenzene | 600 | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | | NA | | | NA | |
| 1,4-Dichlorobenzene | 75 | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | | | NA | | | NA | |
| 2,4,5-Trichlorophenol | 700 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4,6-Trichlorophenol | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dichlorophenol | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dimethylphenol | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dinitrophenol | 40 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | 0.39 | -- | | 0.39 | -- | | 0.39 | -- | | | NA | | | NA | |
| 2-Chloronaphthalene | NC | 0.42 | -- | | 0.42 | -- | | 0.42 | -- | | | NA | | | NA | |
| 2-Chlorophenol | 40 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Methylnaphthalene | NC | 0.34 | -- | | 0.34 | -- | | 0.34 | -- | | | NA | | | NA | |
| 2-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Nitroaniline | NC | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | | | NA | | | NA | |
| 2-Nitrophenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 3,3'-Dichlorobenzidine | 60 | 3.6 | -- | | 3.6 | -- | | 3.6 | -- | | | NA | | | NA | |
| 3-Nitroaniline | NC | 1.4 | -- | | 1.4 | -- | | 1.4 | -- | | | NA | | | NA | |
| 4-Bromophenyl-Phenylether | NC | 0.6 | -- | J | 0.6 | -- | J | 0.6 | -- | J | | NA | | | NA | |
| 4-Chloro-3-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Chloroaniline | NC | 0.25 | -- | | 0.25 | -- | | 0.25 | -- | | | NA | | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.4 | -- | | 0.4 | -- | | 0.4 | -- | | | NA | | | NA | |
| 4-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Nitroaniline | NC | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | | | NA | | | NA | |
| 4-Nitrophenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Acenaphthene | 400 | 0.48 | -- | | 0.48 | -- | | 0.48 | -- | | | NA | | | NA | |
| Acenaphthylene | NC | 0.38 | -- | | 0.38 | -- | | 0.38 | -- | | | NA | | | NA | |
| Anthracene | 2000 | 0.41 | -- | | 0.41 | -- | | 0.41 | -- | | | NA | | | NA | |
| Benzo(a)Anthracene | NC | 0.4 | -- | | 0.4 | -- | | 0.4 | -- | | | NA | | | NA | |

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1A | | AOC-1A | | AOC-1G | | AOC-1G (Geoprobe) | | AOC-1G |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1A-1A | | GW-1A-2A | | GW-1G-1A | | GW-1G-1A | | GW-1G-2A |
| LAB ID | GWQS | | 94896-001 | | 94896-002 | | 94896-003 | | 00061-001 | | 00061-003 |
| SAMPLE COLLECTION DATE | | | 12/21/1999 | | 12/21/1999 | | 12/21/1999 | | 01/05/2000 | | 01/05/2000 |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | | WATER |
| UNITS | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L |
| | | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q |
| Benzo(a)Pyrene | NC | 0.31 | -- | 0.31 | -- | 0.31 | -- | | NA | | NA |
| Benzo(b)Fluoranthene | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | | NA | | NA |
| Benzo(g,h,i)Perylene | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | | NA | | NA |
| Benzo(k)Fluoranthene | NC | 0.42 | -- | 0.42 | -- | 0.42 | -- | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | NC | 0.39 | -- | 0.39 | -- | 0.39 | -- | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 10 | 0.28 | -- | 0.28 | -- | 0.28 | -- | | NA | | NA |
| 2,2-Oxybis (1-Chloropropane) | 300 | 0.68 | -- | 0.68 | -- | 0.68 | -- | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | 30 | 0.58 | -- | 0.58 | -- | 0.58 | -- | | NA | | NA |
| Butylbenzylphthalate | 100 | 0.54 | -- | 0.54 | -- | 0.54 | -- | | NA | | NA |
| Carbazole | NC | 0.41 | -- | 0.41 | -- | 0.41 | -- | | NA | | NA |
| Chrysene | NC | 0.47 | -- | 0.47 | -- | 0.47 | -- | | NA | | NA |
| Di-n-Butylphthalate | 900 | 0.85 | -- | 0.85 | -- | 0.85 | -- | | NA | | NA |
| Di-n-Octylphthalate | 100 | 0.43 | -- | 0.43 | -- | 0.43 | -- | | NA | | NA |
| Dibenzo(a,h)Anthracene | NC | 0.47 | -- | 0.47 | -- | 0.47 | -- | | NA | | NA |
| Dibenzofuran | NC | 0.42 | -- | 0.42 | -- | 0.42 | -- | | NA | | NA |
| Diethylphthalate | 5000 | 0.45 | -- | 0.45 | -- | 0.45 | -- | | NA | | NA |
| Dimethylphthalate | NC | 0.43 | -- | 0.43 | -- | 0.43 | -- | | NA | | NA |
| Fluoranthene | 300 | 0.34 | -- | 0.34 | -- | 0.34 | -- | | NA | | NA |
| Fluorene | 300 | 0.33 | -- | 0.33 | -- | 0.33 | -- | | NA | | NA |
| Hexachlorobenzene | 10 | 0.39 | -- | 0.39 | -- | 0.39 | -- | | NA | | NA |
| Hexachlorobutadiene | 1 | 0.54 | -- | 0.54 | -- | 0.54 | -- | | NA | | NA |
| Hexachlorocyclopentadiene | 50 | 1.5 | -- | 1.5 | -- | 1.5 | -- | | NA | | NA |
| Hexachloroethane | 10 | 0.50 | -- | 0.50 | -- | 0.50 | -- | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | NC | 0.32 | -- | 0.32 | -- | 0.32 | -- | | NA | | NA |
| Isophorone | 100 | 0.30 | -- | 0.30 | -- | 0.30 | -- | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 20 | 0.39 | -- | 0.39 | -- | 0.39 | -- | | NA | | NA |
| N-Nitrosodiphenylamine | 20 | 0.42 | -- | 0.42 | -- | 0.42 | -- | | NA | | NA |
| Naphthalene | 300 | 0.38 | -- | 0.38 | -- | 0.38 | -- | | NA | | NA |
| Nitrobenzene | 10 | 0.36 | -- | 0.36 | -- | 0.36 | -- | | NA | | NA |
| Pentachlorophenol | 1 | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | NC | 0.39 | -- | 0.39 | -- | 0.39 | -- | | NA | | NA |
| Phenol | 4000 | | NA | | NA | | NA | | NA | | NA |
| Pyrene | 200 | 0.43 | -- | 0.43 | -- | 0.43 | -- | | NA | | NA |
| **Total Non-Target SVOCs** | | | 125 J | | 54.74 J | | -- | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | | | 125 | | 54.74 | | -- | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | NC | | 125.0 | | 54.7 | | 1192.4 | | NA | | NA |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Total Chromium | 100 | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | 100[1] | 10 | NA | | NA | | NA | | NA | | NA |

NOTES:
[1] Criterion for total chromium used for comparison
**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
TBC "to be considered" criteria
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-3A | | | GW-1G-4A | | | GW-1G-5A | | | GW-1G-6A | | | GW-1G-7A | |
| LAB ID | GWQS | | 00061-002 | | | 00061-005 | | | 00061-004 | | | 00061-009 | | | 00061-007 | |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | | WATER | | | WATER | | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | | 0.91 | -- | | 0.91 | -- | | 0.91 | -- | | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | | 0.37 | -- | |
| Acetone | 700 | | 7.0 | | | 6.3 | | | 4.3 | | | 4.0 | | 1.6 | -- | |
| Benzene | 1 | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | | 0.56 | -- | | 0.56 | -- | | 0.56 | -- | | 0.56 | -- | |
| Carbon Tetrachloride | 2 | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | | 0.23 | -- | |
| Methyl tertiary-butyl ether | 70 | 0.48 | -- | | | 65 | | 0.48 | -- | | 0.48 | -- | | 0.48 | -- | |
| Methylene Chloride | 3 | | 1.5 | | 1.1 | -- | | 1.1 | -- | | | 1.8 | | 1.1 | -- | |
| Styrene | 100 | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | | 0.13 | -- | |
| Tertiary-butyl alcohol | 500 TBC | 1.0 | -- | | | 18 | | 1.0 | -- | | 1.0 | -- | | 1.0 | -- | |
| Tetrachloroethene | 1 | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | | 1.6 | -- | |
| Trichloroethene | 1 | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | | 0.71 | -- | |
| Xylenes (Total) | 1000 | 1.5 | -- | | 1.5 | -- | | 1.5 | -- | | 1.5 | -- | | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | 39 | J | | 19 | J | | -- | | | -- | | | -- | |
| **Total Volatile Organic Compounds** | NC | | 47.5 | | | 108.3 | | | 4.3 | | | 5.8 | | | -- | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 1,2-Dichlorobenzene | 600 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 1,3-Dichlorobenzene | 600 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 1,4-Dichlorobenzene | 75 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4,5-Trichlorophenol | 700 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4,6-Trichlorophenol | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dichlorophenol | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dimethylphenol | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dinitrophenol | 40 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Chloronaphthalene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Chlorophenol | 40 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Methylnaphthalene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Nitroaniline | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2-Nitrophenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 3,3'-Dichlorobenzidine | 60 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 3-Nitroaniline | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Bromophenyl-Phenylether | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Chloro-3-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Chloroaniline | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Methylphenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Nitroaniline | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| 4-Nitrophenol | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Acenaphthene | 400 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Acenaphthylene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Anthracene | 2000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(a)Anthracene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-3A | | | GW-1G-4A | | | GW-1G-5A | | | GW-1G-6A | | | GW-1G-7A | |
| LAB ID | GWQS | | 00061-002 | | | 00061-005 | | | 00061-004 | | | 00061-009 | | | 00061-007 | |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | | WATER | | | WATER | | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| Benzo(a)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(b)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(g,h,i)Perylene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(k)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,2-Oxybis (1-Chloropropane) | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 30 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Butylbenzylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Carbazole | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Chrysene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Butylphthalate | 900 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Octylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzo(a,h)Anthracene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzofuran | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Diethylphthalate | 5000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dimethylphthalate | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluoranthene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluorene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobutadiene | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorocyclopentadiene | 50 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachloroethane | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Indeno(1,2,3-cd)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Isophorone | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodi-n-Propylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodiphenylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Naphthalene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Nitrobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pentachlorophenol | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenanthrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenol | 4000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pyrene | 200 | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target SVOCs** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Semi-Volatile Organic Compounds** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | | | | | |
| Total Chromium | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexavalent Chromium | 100[1] | | NA | | | NA | | | NA | | | NA | | | NA | |

NOTES:

[1] Criterion for total chromium used for comparison

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
TBC "to be considered" criteria
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | AOC-1G | | AOC-1G | | AOC-1G | | AOC-1G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-8A | | GW-1G-9A | | GW-1G-10A | | GW-1G-11A | | GW-1G-12A | |
| LAB ID | GWQS | | 00061-006 | | 00061-008 | | 00061-010 | | 00061-018 | | 00061-012 | |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | ug/L CONC | Q | ug/L CONC | Q | ug/L CONC | Q | ug/L CONC | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | 0.46 | -- | 0.46 | -- | 0.46 | -- | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | 2.3 | -- | 2.3 | -- | 2.3 | -- | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | 0.52 | -- | 0.52 | -- | 0.52 | -- | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | 0.21 | -- | 0.21 | -- | 0.21 | -- | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | 0.32 | -- | 0.32 | -- | 0.32 | -- | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | 0.91 | -- | 0.91 | -- | 0.91 | -- | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | 0.51 | -- | 0.51 | -- | 0.51 | -- | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | |
| Acetone | 700 | | 5.4 | | 6.6 | 1.6 | -- | | 11 | | 6.0 | |
| Benzene | 1 | 0.26 | -- | 0.26 | -- | 0.26 | -- | 0.26 | -- | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | | 1.4 | 0.56 | -- | | 1.3 | | 2.7 | |
| Carbon Tetrachloride | 2 | 0.80 | -- | 0.80 | -- | 0.80 | -- | 0.80 | -- | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | 0.58 | -- | 0.58 | -- | 0.58 | -- | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | 3.7 | -- | 3.7 | -- | 3.7 | -- | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | 0.81 | -- | 0.81 | -- | 0.81 | -- | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | 0.59 | -- | 0.59 | -- | 0.59 | -- | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | 0.19 | -- | 0.19 | -- | 0.19 | -- | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | 0.47 | -- | 0.47 | -- | 0.47 | -- | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | |
| Methyl tertiary-butyl ether | 70 | 0.48 | -- | | **410** | | **420** | | 51 | | 4.9 | |
| Methylene Chloride | 3 | 1.1 | -- | 1.1 | -- | 1.1 | -- | | 1.6 | | 1.6 | |
| Styrene | 100 | 0.13 | -- | 0.13 | -- | 0.13 | -- | 0.13 | -- | 0.13 | -- | |
| Tertiary-butyl alcohol | 500 TBC | 1.0 | -- | | 140 | | 160 | | 15 | 1.0 | -- | |
| Tetrachloroethene | 1 | 0.62 | -- | 0.62 | -- | 0.62 | -- | 0.62 | -- | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | 1.6 | -- | 1.6 | -- | 1.6 | -- | 1.6 | -- | |
| Trichloroethene | 1 | 0.44 | -- | 0.44 | -- | 0.44 | -- | 0.44 | -- | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | |
| Xylenes (Total) | 1000 | 1.5 | -- | 1.5 | -- | 1.5 | -- | 1.5 | -- | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | -- | | 9 | J | 18 | J | -- | | -- | |
| **Total Volatile Organic Compounds** | NC | | 5.4 | | 567 | | 598 | | 79.9 | | 15.2 | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | | NA | | NA | | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | | NA | |
| 1,4-Dichlorobenzene | 75 | | NA | | NA | | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | 700 | | NA | | NA | | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | 20 | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dichlorophenol | 20 | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dimethylphenol | 100 | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dinitrophenol | 40 | | NA | | NA | | NA | | NA | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | | NA | | NA | | NA | | NA | | NA | |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA | |
| 2-Chlorophenol | 40 | | NA | | NA | | NA | | NA | | NA | |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA | |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA | |
| 2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA | |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA | |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA | |
| 3,3'-Dichlorobenzidine | 50 | | NA | | NA | | NA | | NA | | NA | |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Chloro-3-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Chloroaniline | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA | |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA | |
| Acenaphthene | 400 | | NA | | NA | | NA | | NA | | NA | |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA | |
| Anthracene | 2000 | | NA | | NA | | NA | | NA | | NA | |
| Benzo(a)Anthracene | NC | | NA | | NA | | NA | | NA | | NA | |

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-8A | | | GW-1G-9A | | | GW-1G-10A | | | GW-1G-11A | | | GW-1G-12A | |
| LAB ID | GWQS | | 00061-006 | | | 00061-008 | | | 00061-010 | | | 00061-018 | | | 00061-012 | |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | | WATER | | | WATER | | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| Benzo(a)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(b)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(g,h,i)Perylene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(k)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,2-Oxybis (1-Chloropropane) | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 30 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Butylbenzylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Carbazole | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Chrysene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Butylphthalate | 900 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Octylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzo(a,h)Anthracene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzofuran | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Diethylphthalate | 5000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dimethylphthalate | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluoranthene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluorene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobutadiene | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorocyclopentadiene | 50 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachloroethane | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Indeno(1,2,3-cd)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Isophorone | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodi-n-Propylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodiphenylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Naphthalene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Nitrobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pentachlorophenol | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenanthrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenol | 4000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pyrene | 200 | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target SVOCs** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Semi-Volatile Organic Compounds** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | | | | | |
| Total Chromium | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexavalent Chromium | 100[1] | | NA | | | NA | | | NA | | | NA | | | NA | |

NOTES:

[1] Criterion for total chromium used for comparison

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
TBC "to be considered" criteria
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | AOC-1G | | AOC-1G | | AOC-1I | | AOC-1I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-16A | | GW-1G-22A | | GW-1G-23A | | GW-1I-W5 | | GW-1I-W6 |
| LAB ID | GWQS | | 00061-011 | | 00061-016 | | 00061-015 | | 93536-005 | | 93536-006 |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | 01/05/2000 | | 01/05/2000 | | 09/03/1999 | | 09/03/1999 |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | | WATER |
| UNITS | ug/L | MDL | ug/L CONC Q | MDL | ug/L CONC Q | MDL | ug/L CONC Q | MDL | ug/L CONC Q | MDL | ug/L CONC Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | 0.50 | -- | 0.50 | -- | | NA | | NA |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | 0.46 | -- | 0.46 | -- | | NA | | NA |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | 0.35 | -- | 0.35 | -- | | NA | | NA |
| 1,1-Dichloroethane | 50 | 2.3 | -- | 2.3 | -- | 2.3 | -- | | NA | | NA |
| 1,1-Dichloroethene | 2 | 0.71 | -- | 0.71 | -- | 0.71 | -- | | NA | | NA |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | 0.52 | -- | 0.52 | -- | | NA | | NA |
| 1,2-Dichloroethane | 2 | 0.21 | -- | 0.21 | -- | 0.21 | -- | | NA | | NA |
| 1,2-Dichloropropane | 1 | 0.32 | -- | 0.32 | -- | 0.32 | -- | | NA | | NA |
| Trans-1,2-Dichloroethene | 100 | 0.37 | -- | 0.37 | -- | 0.37 | -- | | NA | | NA |
| 2-Butanone | 300 | 0.91 | -- | | 3.6 | 0.91 | -- | | NA | | NA |
| 2-Hexanone | NC | 0.51 | -- | 0.51 | -- | 0.51 | -- | | NA | | NA |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | 0.37 | -- | 0.37 | -- | | NA | | NA |
| Acetone | 700 | | 5.7 | | 14.0 | | 5.9 | | NA | | NA |
| Benzene | 1 | 0.26 | -- | 0.26 | -- | 0.26 | -- | | NA | | NA |
| Bromoform | 4 | 0.50 | -- | 0.50 | -- | 0.50 | -- | | NA | | NA |
| Carbon Disulfide | NC | 0.56 | -- | | 9.0 | | 1.2 | | NA | | NA |
| Carbon Tetrachloride | 2 | 0.80 | -- | 0.80 | -- | 0.80 | -- | | NA | | NA |
| Chlorobenzene | 50 | 0.58 | -- | 0.58 | -- | 0.58 | -- | | NA | | NA |
| Dibromochloromethane | 10 | 3.7 | -- | 3.7 | -- | 3.7 | -- | | NA | | NA |
| Chloroethane | NC | 0.81 | -- | 0.81 | -- | 0.81 | -- | | NA | | NA |
| Chloroform | 6 | 0.59 | -- | 0.59 | -- | 0.59 | -- | | NA | | NA |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | 0.19 | -- | 0.19 | -- | | NA | | NA |
| Bromodichloromethane | 1 | 0.23 | -- | 0.23 | -- | 0.23 | -- | | NA | | NA |
| Ethylbenzene | 700 | 0.43 | -- | 0.43 | -- | 0.43 | -- | | NA | | NA |
| Bromomethane | 10 | 0.47 | -- | 0.47 | -- | 0.47 | -- | | NA | | NA |
| Chloromethane | 30 | 0.23 | -- | 0.23 | -- | 0.23 | -- | | NA | | NA |
| Methyl tertiary-butyl ether | 70 | 0.48 | -- | 0.48 | -- | 0.48 | -- | | NA | | NA |
| Methylene Chloride | 3 | | 1.9 | | 1.6 | | 1.3 | | NA | | NA |
| Styrene | 100 | 0.13 | -- | 0.13 | -- | 0.13 | -- | | NA | | NA |
| Tertiary-butyl alcohol | 500 TBC | 1.0 | -- | 1.0 | -- | 1.0 | -- | | NA | | NA |
| Tetrachloroethene | 1 | 0.62 | -- | 0.62 | -- | 0.62 | -- | | NA | | NA |
| Toluene | 1000 | 1.6 | -- | 1.6 | -- | 1.6 | -- | | NA | | NA |
| Trichloroethene | 1 | 0.44 | -- | 0.44 | -- | 0.44 | -- | | NA | | NA |
| Vinyl chloride | 5 | 0.71 | -- | 0.71 | -- | 0.71 | -- | | NA | | NA |
| Xylenes (Total) | 1000 | 1.5 | -- | 1.5 | -- | 1.5 | -- | | NA | | NA |
| **Total VOCs (Non-Target)** | NC | | -- | | 10 J | | -- | | NA | | NA |
| **Total Volatile Organic Compounds** | NC | | 7.6 | | 38.2 | | 8.4 | | NA | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | 75 | | NA | | NA | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | 700 | | NA | | NA | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | 20 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dichlorophenol | 20 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dimethylphenol | 100 | | NA | | NA | | NA | | NA | | NA |
| 2,4-Dinitrophenol | 40 | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | | NA | | NA | | NA | | NA | | NA |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Chlorophenol | 40 | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | 60 | | NA | | NA | | NA | | NA | | NA |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Chloroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Methylphenol | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | | NA |
| Acenaphthene | 400 | | NA | | NA | | NA | | NA | | NA |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | | NA |
| Anthracene | 2000 | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | NC | | NA | | NA | | NA | | NA | | NA |

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1G | | | AOC-1G | | | AOC-1G | | | AOC-1I | | | AOC-1I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-1G-16A | | | GW-1G-22A | | | GW-1G-23A | | | GW-1I-W5 | | | GW-1I-W6 | |
| LAB ID | GWQS | | 00061-011 | | | 00061-016 | | | 00061-015 | | | 93536-005 | | | 93536-006 | |
| SAMPLE COLLECTION DATE | | | 01/05/2000 | | | 01/05/2000 | | | 01/05/2000 | | | 09/03/1999 | | | 09/03/1999 | |
| MATRIX | WATER | | WATER | | | WATER | | | WATER | | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| Benzo(a)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(b)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(g,h,i)Perylene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Benzo(k)Fluoranthene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| 2,2-Oxybis (1-Chloropropane) | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 30 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Butylbenzylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Carbazole | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Chrysene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Butylphthalate | 900 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Octylphthalate | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzo(a,h)Anthracene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dibenzofuran | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Diethylphthalate | 5000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Dimethylphthalate | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluoranthene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Fluorene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobutadiene | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorocyclopentadiene | 50 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Hexachloroethane | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Indeno(1,2,3-cd)Pyrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Isophorone | 100 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodi-n-Propylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodiphenylamine | 20 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Naphthalene | 300 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Nitrobenzene | 10 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pentachlorophenol | 1 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenanthrene | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| Phenol | 4000 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Pyrene | 200 | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target SVOCs** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Semi-Volatile Organic Compounds** | | | NA | | | NA | | | NA | | | NA | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | NA | | | NA | | | NA | | | NA | | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | | | | | |
| Total Chromium | 100 | | NA | | | NA | | | NA | | | 2.5 | J | | 1.72 | J |
| Hexavalent Chromium | 100[1] | | NA | | | NA | | | NA | | 10 | -- | | 10 | -- | |

**NOTES:**

[1] Criterion for total chromium used for comparison

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
TBC "to be considered" criteria
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I | |
|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | DUPW2* | | GW-1I-1A | | GW-1I-2A | | GWDUP1/14:15* | |
| LAB ID | GWQS | | 93536-009 | | 94920-008 | | 94920-009 | | 94920-012 | |
| SAMPLE COLLECTION DATE | | | 09/03/1999 | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| | | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | |
| **ORGANIC COMPOUNDS** | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | | NA | | NA | | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | 1 | | NA | | NA | | NA | | NA | |
| 1,1,2-Trichloroethane | 3 | | NA | | NA | | NA | | NA | |
| 1,1-Dichloroethane | 50 | | NA | | NA | | NA | | NA | |
| 1,1-Dichloroethene | 2 | | NA | | NA | | NA | | NA | |
| cis-1,2-Dichloroethene | 70 | | NA | | NA | | NA | | NA | |
| 1,2-Dichloroethane | 2 | | NA | | NA | | NA | | NA | |
| 1,2-Dichloropropane | 1 | | NA | | NA | | NA | | NA | |
| Trans-1,2-Dichloroethene | 100 | | NA | | NA | | NA | | NA | |
| 2-Butanone | 300 | | NA | | NA | | NA | | NA | |
| 2-Hexanone | NC | | NA | | NA | | NA | | NA | |
| 4-Methyl-2-Pentanone | 400 | | NA | | NA | | NA | | NA | |
| Acetone | 700 | | NA | | NA | | NA | | NA | |
| Benzene | 1 | | NA | | NA | | NA | | NA | |
| Bromoform | 4 | | NA | | NA | | NA | | NA | |
| Carbon Disulfide | NC | | NA | | NA | | NA | | NA | |
| Carbon Tetrachloride | 2 | | NA | | NA | | NA | | NA | |
| Chlorobenzene | 50 | | NA | | NA | | NA | | NA | |
| Dibromochloromethane | 10 | | NA | | NA | | NA | | NA | |
| Chloroethane | NC | | NA | | NA | | NA | | NA | |
| Chloroform | 6 | | NA | | NA | | NA | | NA | |
| 1,3-Dichloropropene (Total) | 0.2 | | NA | | NA | | NA | | NA | |
| Bromodichloromethane | 1 | | NA | | NA | | NA | | NA | |
| Ethylbenzene | 700 | | NA | | NA | | NA | | NA | |
| Bromomethane | 10 | | NA | | NA | | NA | | NA | |
| Chloromethane | 30 | | NA | | NA | | NA | | NA | |
| Methyl tertiary-butyl ether | 70 | | NA | | NA | | NA | | NA | |
| Methylene Chloride | 3 | | NA | | NA | | NA | | NA | |
| Styrene | 100 | | NA | | NA | | NA | | NA | |
| Tertiary-butyl alcohol | 500 TBC | | NA | | NA | | NA | | NA | |
| Tetrachloroethene | 1 | | NA | | NA | | NA | | NA | |
| Toluene | 1000 | | NA | | NA | | NA | | NA | |
| Trichloroethene | 1 | | NA | | NA | | NA | | NA | |
| Vinyl chloride | 5 | | NA | | NA | | NA | | NA | |
| Xylenes (Total) | 1000 | | NA | | NA | | NA | | NA | |
| **Total VOCs (Non-Target)** | NC | | NA | | NA | | NA | | NA | |
| **Total Volatile Organic Compounds** | NC | | NA | | NA | | NA | | NA | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | | NA | | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | 600 | | NA | | NA | | NA | | NA | |
| 1,4-Dichlorobenzene | 75 | | NA | | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | 700 | | NA | | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | 20 | | NA | | NA | | NA | | NA | |
| 2,4-Dichlorophenol | 20 | | NA | | NA | | NA | | NA | |
| 2,4-Dimethylphenol | 100 | | NA | | NA | | NA | | NA | |
| 2,4-Dinitrophenol | 40 | | NA | | NA | | NA | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | | NA | | NA | | NA | | NA | |
| 2-Chloronaphthalene | NC | | NA | | NA | | NA | | NA | |
| 2-Chlorophenol | 40 | | NA | | NA | | NA | | NA | |
| 4,6-Dinitro-2-Methylphenol | NC | | NA | | NA | | NA | | NA | |
| 2-Methylnaphthalene | NC | | NA | | NA | | NA | | NA | |
| 2-Methylphenol | NC | | NA | | NA | | NA | | NA | |
| 2-Nitroaniline | NC | | NA | | NA | | NA | | NA | |
| 2-Nitrophenol | NC | | NA | | NA | | NA | | NA | |
| 3,3'-Dichlorobenzidine | 60 | | NA | | NA | | NA | | NA | |
| 3-Nitroaniline | NC | | NA | | NA | | NA | | NA | |
| 4-Bromophenyl-Phenylether | NC | | NA | | NA | | NA | | NA | |
| 4-Chloro-3-Methylphenol | NC | | NA | | NA | | NA | | NA | |
| 4-Chloroaniline | NC | | NA | | NA | | NA | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | NA | | NA | | NA | |
| 4-Methylphenol | NC | | NA | | NA | | NA | | NA | |
| 4-Nitroaniline | NC | | NA | | NA | | NA | | NA | |
| 4-Nitrophenol | NC | | NA | | NA | | NA | | NA | |
| Acenaphthene | 400 | | NA | | NA | | NA | | NA | |
| Acenaphthylene | NC | | NA | | NA | | NA | | NA | |
| Anthracene | 2000 | | NA | | NA | | NA | | NA | |
| Benzo(a)Anthracene | NC | | NA | | NA | | NA | | NA | |

TABLE 6 - AOC-1
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-1I | | AOC-1I | | AOC-1I | | AOC-1I | |
|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | DUPW2* | | GW-1I-1A | | GW-1I-2A | | GWDUP1/14:15* | |
| LAB ID | GWQS | | 93536-009 | | 94920-008 | | 94920-009 | | 94920-012 | |
| SAMPLE COLLECTION DATE | | | 09/03/1999 | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | ug/L CONC | Q | ug/L CONC | Q | ug/L CONC | Q |
| Benzo(a)Pyrene | NC | | NA | | NA | | NA | | NA | |
| Benzo(b)Fluoranthene | NC | | NA | | NA | | NA | | NA | |
| Benzo(g,h,i)Perylene | NC | | NA | | NA | | NA | | NA | |
| Benzo(k)Fluoranthene | NC | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | | NA | | NA | | NA | | NA | |
| 2,2-Oxybis (1-Chloropropane) | 300 | | NA | | NA | | NA | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 30 | | NA | | NA | | NA | | NA | |
| Butylbenzylphthalate | 100 | | NA | | NA | | NA | | NA | |
| Carbazole | NC | | NA | | NA | | NA | | NA | |
| Chrysene | NC | | NA | | NA | | NA | | NA | |
| Di-n-Butylphthalate | 900 | | NA | | NA | | NA | | NA | |
| Di-n-Octylphthalate | 100 | | NA | | NA | | NA | | NA | |
| Dibenzo(a,h)Anthracene | NC | | NA | | NA | | NA | | NA | |
| Dibenzofuran | NC | | NA | | NA | | NA | | NA | |
| Diethylphthalate | 5000 | | NA | | NA | | NA | | NA | |
| Dimethylphthalate | NC | | NA | | NA | | NA | | NA | |
| Fluoranthene | 300 | | NA | | NA | | NA | | NA | |
| Fluorene | 300 | | NA | | NA | | NA | | NA | |
| Hexachlorobenzene | 10 | | NA | | NA | | NA | | NA | |
| Hexachlorobutadiene | 1 | | NA | | NA | | NA | | NA | |
| Hexachlorocyclopentadiene | 50 | | NA | | NA | | NA | | NA | |
| Hexachloroethane | 10 | | NA | | NA | | NA | | NA | |
| Indeno(1,2,3-cd)Pyrene | NC | | NA | | NA | | NA | | NA | |
| Isophorone | 100 | | NA | | NA | | NA | | NA | |
| N-Nitrosodi-n-Propylamine | 20 | | NA | | NA | | NA | | NA | |
| N-Nitrosodiphenylamine | 20 | | NA | | NA | | NA | | NA | |
| Naphthalene | 300 | | NA | | NA | | NA | | NA | |
| Nitrobenzene | 10 | | NA | | NA | | NA | | NA | |
| Pentachlorophenol | 1 | | NA | | NA | | NA | | NA | |
| Phenanthrene | NC | | NA | | NA | | NA | | NA | |
| Phenol | 4000 | | NA | | NA | | NA | | NA | |
| Pyrene | 200 | | NA | | NA | | NA | | NA | |
| **Total Non-Target SVOCs** | | | NA | | NA | | NA | | NA | |
| **Total Semi-Volatile Organic Compounds** | | | NA | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | NA | | NA | | NA | | NA | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Total Chromium | 100 | | 1.21 | J | 23.6 | J | 11.9 | J | NA | |
| Hexavalent Chromium | 100[1] | 10 | -- | | -- | 10 | -- | 10 | -- | |

NOTES:

[1] Criterion for total chromium used for comparison

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
TBC "to be considered" criteria
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-15
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | | AOC-15K | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-15K-W3 | | DUP-W* | | GW-15K-W4 | | | GW-15K-1A | |
| LAB ID | GWQS | | 93524023 | | 93524021 | | 93536004 | | | 94920-007 | |
| SAMPLE COLLECTION DATE | | | 09/02/1999 | | 09/02/1999 | | 09/03/1999 | | | | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | | 0.5 | -- | 0.5 | -- | | 0.5 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | | 0.46 | -- | 0.46 | -- | | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | | 0.35 | -- | 0.35 | -- | | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | | 2.3 | -- | 2.3 | -- | | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | | 0.71 | -- | 0.71 | -- | | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | | 0.52 | -- | 0.52 | -- | | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | | 0.21 | -- | 0.21 | -- | | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | | 0.32 | -- | 0.32 | -- | | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | 0.37 | -- | | 0.37 | -- | 0.37 | -- | | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | | 0.91 | -- | 0.91 | -- | | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | | 0.51 | -- | 0.51 | -- | | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | | 0.37 | -- | 0.37 | -- | | 0.37 | -- | |
| Acetone | 700 | 1.6 | -- | | 1.6 | -- | 1.6 | -- | | 1.6 | -- | |
| Benzene | 1 | 0.26 | -- | | 0.26 | -- | 0.26 | -- | | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | | 0.5 | -- | 0.5 | -- | | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | | 0.56 | -- | 0.56 | -- | | 0.56 | -- | |
| Carbon Tetrachloride | 2 | 0.80 | -- | | 0.8 | -- | 0.8 | -- | | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | | 0.58 | -- | 0.58 | -- | | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | | 3.7 | -- | 3.7 | -- | | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | | 0.81 | -- | 0.81 | -- | | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | | 0.59 | -- | 0.59 | -- | | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | | 0.19 | -- | 0.19 | -- | | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | | 0.23 | -- | 0.23 | -- | | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | | 0.43 | -- | 0.43 | -- | | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | | 0.47 | -- | 0.47 | -- | | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | | 0.23 | -- | 0.23 | -- | | 0.23 | -- | |
| Methylene Chloride | 3 | | | N | | N | | | N | | 2.1 | |
| Styrene | 100 | 0.13 | -- | | 0.13 | -- | 0.13 | -- | | 0.13 | | |
| Tetrachloroethene | 1 | | **6.70** | J | | **4.80** | J | 0.62 | -- | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | | 1.6 | -- | 1.6 | -- | | 1.6 | -- | |
| Trichloroethene | 1 | 0.44 | -- | | 0.44 | -- | 0.44 | -- | | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | | 0.71 | -- | 0.71 | -- | | 0.71 | -- | |
| Xylenes (Total) | 1000 | 1.5 | -- | | 1.5 | -- | 1.5 | -- | | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | -- | | | -- | | -- | | | -- | |
| **Total Volatile Organic Compounds** | NC | | 6.70 | | | 4.80 | | -- | | | 2.1 | |
| | | | | | | | | | | | | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | | NA | | | NA | | NA | | 0.44 | -- | |
| 1,2-Dichlorobenzene | 600 | | NA | | | NA | | NA | | 0.61 | -- | |
| 1,3-Dichlorobenzene | 600 | | NA | | | NA | | NA | | 0.50 | -- | |
| 1,4-Dichlorobenzene | 75 | | NA | | | NA | | NA | | 0.59 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | | NA | | | NA | | NA | | 0.39 | -- | |
| 2-Chloronaphthalene | NC | | NA | | | NA | | NA | | 0.42 | -- | |
| 2-Methylnaphthalene | NC | | NA | | | NA | | NA | | 0.34 | -- | |
| 2-Nitroaniline | NC | | NA | | | NA | | NA | | 0.43 | -- | |
| 3,3'-Dichlorobenzidine | 60 | | NA | | | NA | | NA | | 3.6 | -- | |
| 3-Nitroaniline | NC | | NA | | | NA | | NA | | 1.4 | -- | |
| 4-Bromophenyl-Phenylether | NC | | NA | | | NA | | NA | | 0.60 | -- | |
| 4-Chloroaniline | NC | | NA | | | NA | | NA | | 0.25 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | | NA | | | NA | | NA | | 0.40 | -- | |
| 4-Nitroaniline | NC | | NA | | | NA | | NA | | 0.35 | - | |
| Acenaphthene | 400 | | NA | | | NA | | NA | | 0.48 | -- | |
| Acenaphthylene | NC | | NA | | | NA | | NA | | 0.38 | -- | |
| Anthracene | 2000 | | NA | | | NA | | NA | | 0.41 | -- | |
| Benzo(a)Anthracene | NC | | NA | | | NA | | NA | | 0.40 | -- | |

TABLE 6 - AOC-15
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-15K | | AOC-15K | | AOC-15K | | AOC-15K | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-15K-W3 | | DUP-W* | | GW-15K-W4 | | GW-15K-1A | | |
| LAB ID | GWQS | | 93524023 | | 93524021 | | 93536004 | | 94920-007 | | |
| SAMPLE COLLECTION DATE | | | 09/02/1999 | | 09/02/1999 | | 09/03/1999 | | | | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| Benzo(a)Pyrene | NC | | NA | | | NA | | | NA | | 0.31 | -- | |
| Benzo(b)Fluoranthene | NC | | NA | | | NA | | | NA | | 0.35 | -- | |
| Benzo(g,h,i)Perylene | NC | | NA | | | NA | | | NA | | 0.35 | -- | |
| Benzo(k)Fluoranthene | NC | | NA | | | NA | | | NA | | 0.42 | -- | |
| Bis(2-Chloroethoxy) Methane | NC | | NA | | | NA | | | NA | | 0.39 | -- | |
| Bis(2-Chloroethyl)Ether | 10 | | NA | | | NA | | | NA | | 0.28 | -- | |
| 2,2-Oxybis (1-Chloropropane) | 300 | | NA | | | NA | | | NA | | 0.68 | -- | |
| Bis(2-Ethylhexyl)Phthalate | 30 | | NA | | | NA | | | NA | | | 1.7 | B |
| Butylbenzylphthalate | 100 | | NA | | | NA | | | NA | | 0.54 | -- | |
| Carbazole | NC | | NA | | | NA | | | NA | | 0.41 | -- | |
| Chrysene | NC | | NA | | | NA | | | NA | | 0.47 | -- | |
| Di-n-Butylphthalate | 900 | | NA | | | NA | | | NA | | 0.85 | -- | |
| Di-n-Octylphthalate | 100 | | NA | | | NA | | | NA | | 0.43 | -- | |
| Dibenzo(a,h)Anthracene | NC | | NA | | | NA | | | NA | | 0.47 | -- | |
| Dibenzofuran | NC | | NA | | | NA | | | NA | | 0.42 | -- | |
| Diethylphthalate | 5000 | | NA | | | NA | | | NA | | 0.45 | -- | |
| Dimethylphthalate | NC | | NA | | | NA | | | NA | | 0.43 | -- | |
| Fluoranthene | 300 | | NA | | | NA | | | NA | | 0.34 | -- | |
| Fluorene | 300 | | NA | | | NA | | | NA | | 0.33 | -- | |
| Hexachlorobenzene | 10 | | NA | | | NA | | | NA | | 0.39 | -- | |
| Hexachlorobutadiene | 1 | | NA | | | NA | | | NA | | 0.54 | -- | |
| Hexachlorocyclopentadiene | 50 | | NA | | | NA | | | NA | | 1.5 | -- | |
| Hexachloroethane | 10 | | NA | | | NA | | | NA | | 0.50 | -- | |
| Indeno(1,2,3-cd)Pyrene | NC | | NA | | | NA | | | NA | | 0.32 | -- | |
| Isophorone | 100 | | NA | | | NA | | | NA | | 0.30 | -- | |
| N-Nitrosodi-n-Propylamine | 20 | | NA | | | NA | | | NA | | 0.39 | -- | |
| N-Nitrosodiphenylamine | 20 | | NA | | | NA | | | NA | | 0.42 | -- | |
| Naphthalene | 300 | | NA | | | NA | | | NA | | 0.38 | -- | |
| Nitrobenzene | 10 | | NA | | | NA | | | NA | | 0.36 | -- | |
| Phenanthrene | NC | | NA | | | NA | | | NA | | 0.39 | -- | |
| Pyrene | 200 | | NA | | | NA | | | NA | | 0.43 | -- | |
| **Total Non-Target SVOCs** | | | NA | | | NA | | | NA | | | -- | |
| **Total Semi-Volatile Organic Compounds** | | | NA | | | NA | | | NA | | | 1.7 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | | |
| Aroclor-1016 | NC | 0.08 | -- | | 0.07 | -- | | 0.074 | -- | | 0.0946 | -- | |
| Aroclor-1221 | NC | 0.16 | -- | | 0.15 | -- | | 0.15 | -- | | 0.0981 | -- | |
| Aroclor-1232 | NC | 0.04 | -- | | 0.04 | -- | | 0.04 | -- | | 0.0531 | -- | |
| Aroclor-1242 | NC | 0.12 | -- | | 0.11 | -- | | 0.11 | -- | | 0.112 | -- | |
| Aroclor-1248 | NC | 0.06 | -- | | 0.06 | -- | | 0.06 | -- | | 0.0415 | -- | |
| Aroclor-1254 | NC | 0.14 | -- | | 0.13 | -- | | 0.13 | -- | | 0.0638 | -- | |
| Aroclor-1260 | NC | 0.12 | -- | | 0.11 | -- | | 0.11 | -- | | 0.0459 | -- | |
| **Total PCBs** | 0.5 | | -- | | | -- | | | -- | | | -- | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | 6.7 | | | 4.8 | | | -- | | | 3.8 | |

NOTES:

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
B Analyte Detected in Blank Sample
J Estimated value
N Negated by URSGWC Data Validation
NC No criteria established
NA Not analyzed
* Duplicate of previous sample

TABLE 6 - AOC-16
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-16D | | | AOC-16D | |
|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-16D-W12 | | | GW-16D-W13 | |
| LAB ID | GWQS | | 93536010 | | | 93536011 | |
| SAMPLE COLLECTION DATE | | | 09/03/1999 | | | 09/03/1999 | |
| MATRIX | WATER | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| **INORGANIC COMPOUNDS** | | | | | | | |
| **Metals** | | | | | | | |
| Total Chromium | 100 | | 0.28 | J | | 3.15 | J |
| Hexavalent Chromium | 100[1] | 100 | -- | | 10 | -- | |

NOTES:
[1] Criterion for total chromium used for comparison
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value

TABLE 6 - AOC-21
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-21A | | | AOC-21B | |
|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-21A | | | GW-21B | |
| LAB ID | GWQS | | 94896-004 | | | 00061-013 | |
| SAMPLE COLLECTION DATE | | | 12/21/1999 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC | Q | MDL | ug/L CONC | Q |
| **ORGANIC COMPOUNDS** | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.50 | -- | | 0.50 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | | NA | | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | | 0.37 | -- | |
| Acetone | 700 | 1.6 | -- | | | 4.2 | |
| Benzene | 1 | 0.26 | -- | | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | | 0.56 | -- | |
| Carbon Tetrachloride | 2 | 0.80 | -- | | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | | 0.23 | -- | |
| Methyl tertiary-butyl ether | 70 | | NA | | 0.48 | -- | |
| Methylene Chloride | 3 | | | N | | 1.6 | |
| Styrene | 100 | 0.13 | -- | | 0.13 | -- | |
| Tertiary-butyl alcohol | 500 TBC | | NA | | 1.0 | -- | |
| Tetrachloroethene | 1 | 0.62 | -- | | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | | 1.6 | -- | |
| Trichloroethene | 1 | 0.44 | -- | | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | | 0.71 | -- | |
| Xylenes (Total) | 1000 | | 1.4 | J | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | 2 | J | | -- | |
| **Total Volatile Organic Compounds** | NC | | 3.4 | | | 5.8 | |
| **Semi-Volatile Organic Compounds** | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | 0.44 | -- | | | NA | |
| 1,2-Dichlorobenzene | 600 | 0.61 | -- | | | NA | |
| 1,3-Dichlorobenzene | 600 | 0.50 | -- | | | NA | |
| 1,4-Dichlorobenzene | 75 | 0.59 | -- | | | NA | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | 0.39 | -- | | | NA | |
| 2-Chloronaphthalene | NC | 0.42 | -- | | | NA | |
| 2-Methylnaphthalene | NC | 0.34 | -- | | | NA | |
| 2-Nitroaniline | NC | 0.43 | -- | | | NA | |
| 3,3'-Dichlorobenzidine | 60 | 3.6 | -- | | | NA | |
| 3-Nitroaniline | NC | 1.4 | -- | | | NA | |
| 4-Bromophenyl-Phenylether | NC | 0.60 | -- | J | | NA | |
| 4-Chloroaniline | NC | 0.25 | -- | | | NA | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.40 | -- | | | NA | |
| 4-Nitroaniline | NC | 0.35 | - | | | NA | |
| Acenaphthene | 400 | 0.48 | -- | | | NA | |
| Acenaphthylene | NC | 0.38 | -- | | | NA | |
| Anthracene | 2000 | 0.41 | -- | | | NA | |
| Benzo(a)Anthracene | NC | 0.40 | -- | | | NA | |

TABLE 6 - AOC-21
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-21A | | | AOC-21B | |
|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-21A | | | GW-21B | |
| LAB ID | GWQS | | 94896-004 | | | 00061-013 | |
| SAMPLE COLLECTION DATE | | | 12/21/1999 | | | 01/05/2000 | |
| MATRIX | WATER | | WATER | | | WATER | |
| UNITS | ug/L | | ug/L | | | ug/L | |
| | | MDL | CONC | Q | MDL | CONC | Q |
| Benzo(a)Pyrene | NC | 0.31 | -- | | | NA | |
| Benzo(b)Fluoranthene | NC | 0.35 | -- | | | NA | |
| Benzo(g,h,i)Perylene | NC | 0.35 | -- | | | NA | |
| Benzo(k)Fluoranthene | NC | 0.42 | -- | | | NA | |
| Bis(2-Chloroethoxy) Methane | NC | 0.39 | -- | | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | 0.28 | -- | | | NA | |
| 2,2-Oxybis (1-Chloropropane) | 300 | 0.68 | -- | | | NA | |
| Bis(2-Ethylhexyl)Phthalate | 30 | 0.58 | -- | | | NA | |
| Butylbenzylphthalate | 100 | 0.54 | -- | | | NA | |
| Carbazole | NC | 0.41 | -- | | | NA | |
| Chrysene | NC | 0.47 | -- | | | NA | |
| Di-n-Butylphthalate | 900 | 0.85 | -- | | | NA | |
| Di-n-Octylphthalate | 100 | 0.43 | -- | | | NA | |
| Dibenzo(a,h)Anthracene | NC | 0.47 | -- | | | NA | |
| Dibenzofuran | NC | 0.42 | -- | | | NA | |
| Diethylphthalate | 5000 | 0.45 | -- | | | NA | |
| Dimethylphthalate | NC | 0.43 | -- | | | NA | |
| Fluoranthene | 300 | 0.34 | -- | | | NA | |
| Fluorene | 300 | 0.33 | -- | | | NA | |
| Hexachlorobenzene | 10 | 0.39 | -- | | | NA | |
| Hexachlorobutadiene | 1 | 0.54 | -- | | | NA | |
| Hexachlorocyclopentadiene | 50 | 1.5 | -- | | | NA | |
| Hexachloroethane | 10 | 0.50 | -- | | | NA | |
| Indeno(1,2,3-cd)Pyrene | NC | 0.32 | -- | | | NA | |
| Isophorone | 100 | 0.30 | -- | | | NA | |
| N-Nitrosodi-n-Propylamine | 20 | 0.39 | -- | | | NA | |
| N-Nitrosodiphenylamine | 20 | 0.42 | -- | | | NA | |
| Naphthalene | 300 | 0.38 | -- | | | NA | |
| Nitrobenzene | 10 | 0.36 | -- | | | NA | |
| Phenanthrene | NC | 0.39 | -- | | | NA | |
| Pyrene | 200 | 0.43 | -- | | | NA | |
| **Total Non-Target SVOCs** | | | -- | | | NA | |
| **Total Semi-Volatile Organic Compounds** | | | -- | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | 3.4 | | | 5.8 | |

NOTES:

| | |
|---|---|
| **bold** | Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93) |
| MDL | Method Detection Limit |
| CONC | Concentration |
| Q | Qualifier |
| -- | Not Detected |
| TBC | "to be considered" criteria |
| J | Estimated value |
| N | Negated by URSGWC Data Validation |
| NC | No criteria established |
| NA | Not analyzed |

TABLE 6 - AOC-24
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-24 | | AOC-24 | | AOC-24 | | AOC-24 | |
|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-24-1A | | GWDUP1/9:45* | | GW-24-2A | | GW-24-3A | |
| LAB ID | GWQS | | 94920-001 | | 94920-004 | | 94920-002 | | 94920-003 | |
| SAMPLE COLLECTION DATE | | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | ug/L | MDL | ug/L CONC Q | MDL | ug/L CONC Q | MDL | ug/L CONC Q | MDL | ug/L CONC Q | |
| **ORGANIC COMPOUNDS** | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | |
| 1,1,1-Trichloroethane | 30 | 0.5 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| 1,1,2,2-Tetrachloroethane | 1 | 0.46 | -- | 0.46 | -- | 0.46 | -- | 0.46 | -- | |
| 1,1,2-Trichloroethane | 3 | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | |
| 1,1-Dichloroethane | 50 | 2.3 | -- | 2.3 | -- | 2.3 | -- | 2.3 | -- | |
| 1,1-Dichloroethene | 2 | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | |
| cis-1,2-Dichloroethene | 70 | 0.52 | -- | 0.52 | -- | 0.52 | -- | 0.52 | -- | |
| 1,2-Dichloroethane | 2 | 0.21 | -- | 0.21 | -- | 0.21 | -- | 0.21 | -- | |
| 1,2-Dichloropropane | 1 | 0.32 | -- | 0.32 | -- | 0.32 | -- | 0.32 | -- | |
| Trans-1,2-Dichloroethene | 100 | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | |
| 2-Butanone | 300 | 0.91 | -- | 0.91 | -- | 0.91 | -- | 0.91 | -- | |
| 2-Hexanone | NC | 0.51 | -- | 0.51 | -- | 0.51 | -- | 0.51 | -- | |
| 4-Methyl-2-Pentanone | 400 | 0.37 | -- | 0.37 | -- | 0.37 | -- | 0.37 | -- | |
| Acetone | 700 | 1.6 | -- | 1.6 | -- | 1.6 | -- | 1.6 | -- | |
| Benzene | 1 | 0.26 | -- | 0.26 | -- | 0.26 | -- | 0.26 | -- | |
| Bromoform | 4 | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| Carbon Disulfide | NC | 0.56 | -- | 0.56 | -- | 0.56 | -- | 0.56 | -- | |
| Carbon Tetrachloride | 2 | 0.80 | -- | 0.80 | -- | 0.80 | -- | 0.80 | -- | |
| Chlorobenzene | 50 | 0.58 | -- | 0.58 | -- | 0.58 | -- | 0.58 | -- | |
| Dibromochloromethane | 10 | 3.7 | -- | 3.7 | -- | 3.7 | -- | 3.7 | -- | |
| Chloroethane | NC | 0.81 | -- | 0.81 | -- | 0.81 | -- | 0.81 | -- | |
| Chloroform | 6 | 0.59 | -- | 0.59 | -- | 0.59 | -- | 0.59 | -- | |
| 1,3-Dichloropropene (Total) | 0.2 | 0.19 | -- | 0.19 | -- | 0.19 | -- | 0.19 | -- | |
| Bromodichloromethane | 1 | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | |
| Ethylbenzene | 700 | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| Bromomethane | 10 | 0.47 | -- | 0.47 | -- | 0.47 | -- | 0.47 | -- | |
| Chloromethane | 30 | 0.23 | -- | 0.23 | -- | 0.23 | -- | 0.23 | -- | |
| Methylene Chloride | 3 | | 2.0 | | 1.7 | | 1.5 | | 1.5 | |
| Styrene | 100 | 0.13 | -- | 0.13 | -- | 0.13 | -- | 0.13 | -- | |
| Tetrachloroethene | 1 | 0.62 | -- | 0.62 | -- | 0.62 | -- | 0.62 | -- | |
| Toluene | 1000 | 1.6 | -- | 1.6 | -- | 1.6 | -- | 1.6 | -- | |
| Trichloroethene | 1 | 0.44 | -- | 0.44 | -- | 0.44 | -- | 0.44 | -- | |
| Vinyl chloride | 5 | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | |
| Xylenes (Total) | 1000 | 1.5 | -- | 1.5 | -- | 1.5 | -- | 1.5 | -- | |
| **Total VOCs (Non-Target)** | NC | | -- | | -- | | -- | | -- | |
| **Total Volatile Organic Compounds** | NC | | 2 | | 1.7 | | 1.5 | | 1.5 | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 9 | 0.44 | -- | 0.44 | -- | 0.44 | -- | 0.44 | -- | |
| 1,2-Dichlorobenzene | 600 | 0.61 | -- | 0.61 | -- | 0.61 | -- | 0.61 | -- | |
| 1,3-Dichlorobenzene | 600 | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| 1,4-Dichlorobenzene | 75 | 0.59 | -- | 0.59 | -- | 0.59 | -- | 0.59 | -- | |
| 2,4,5-Trichlorophenol | 700 | 0.42 | -- | 0.42 | -- | 0.42 | -- | 0.42 | -- | |
| 2,4,6-Trichlorophenol | 20 | 0.58 | -- | 0.58 | -- | 0.58 | -- | 0.58 | -- | |
| 2,4-Dichlorophenol | 20 | 0.54 | -- | 0.54 | -- | 0.54 | -- | 0.54 | -- | |
| 2,4-Dimethylphenol | 100 | 0.54 | -- | 0.54 | -- | 0.54 | -- | 0.54 | -- | |
| 2,4-Dinitrophenol | 40 | 12 | -- | 12 | -- | 12 | -- | 12 | -- | |
| Dinitrotoluene (2,4-/2,6- mixture) | 10 | 0.39 | -- | 0.39 | -- | 0.39 | -- | 0.39 | -- | |
| 2-Chloronaphthalene | NC | 0.42 | -- | 0.42 | -- | 0.42 | -- | 0.42 | -- | |
| 2-Chlorophenol | 40 | 0.85 | -- | 0.85 | -- | 0.85 | -- | 0.85 | -- | |
| 4,6-Dinitro-2-Methylphenol | NC | 0.45 | -- | 0.45 | -- | 0.45 | -- | 0.45 | -- | |
| 2-Methylnaphthalene | NC | 0.34 | -- | 0.34 | -- | 0.34 | -- | 0.34 | -- | |
| 2-Methylphenol | NC | 0.71 | -- | 0.71 | -- | 0.71 | -- | 0.71 | -- | |
| 2-Nitroaniline | NC | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| 2-Nitrophenol | NC | 0.58 | -- | 0.58 | -- | 0.58 | -- | 0.58 | -- | |
| 3,3'-Dichlorobenzidine | 60 | 3.6 | -- | 3.6 | -- | 3.6 | -- | 3.6 | -- | |
| 3-Nitroaniline | NC | 1.4 | -- | 1.4 | -- | 1.4 | -- | 1.4 | -- | |
| 4-Bromophenyl-Phenylether | NC | 0.60 | -- | 0.60 | -- | 0.60 | -- | 0.60 | -- | |
| 4-Chloro-3-Methylphenol | NC | 0.57 | -- | 0.57 | -- | 0.57 | -- | 0.57 | -- | |
| 4-Chloroaniline | NC | 0.25 | -- | 0.25 | -- | 0.25 | -- | 0.25 | -- | |
| 4-Chlorophenyl-Phenyl Ether | NC | 0.40 | -- | 0.40 | -- | 0.40 | -- | 0.40 | -- | |
| 4-Methylphenol | NC | 0.24 | -- | 0.24 | -- | 0.24 | -- | 0.24 | -- | |
| 4-Nitroaniline | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | |
| 4-Nitrophenol | NC | 4.9 | -- | 4.9 | -- | 4.9 | -- | 4.9 | -- | |
| Acenaphthene | 400 | 0.48 | -- | 0.48 | -- | 0.48 | -- | 0.48 | -- | |
| Acenaphthylene | NC | 0.38 | -- | 0.38 | -- | 0.38 | -- | 0.38 | -- | |
| Anthracene | 2000 | 0.41 | -- | 0.41 | -- | 0.41 | -- | 0.41 | -- | |
| Benzo(a)Anthracene | NC | 0.40 | -- | 0.40 | -- | 0.40 | -- | 0.40 | -- | |

TABLE 6 - AOC-24
ANALYICAL RESULTS - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| AREA OF CONCERN | | | AOC-24 | | AOC-24 | | AOC-24 | | AOC-24 | |
|---|---|---|---|---|---|---|---|---|---|---|
| URSGWC SAMPLE NO. | NJDEP | | GW-24-1A | | GWDUP1/9:45* | | GW-24-2A | | GW-24-3A | |
| LAB ID | GWQS | | 94920-001 | | 94920-004 | | 94920-002 | | 94920-003 | |
| SAMPLE COLLECTION DATE | | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | | 12/22/1999 | |
| MATRIX | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| | | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | MDL | CONC Q | |
| Benzo(a)Pyrene | NC | 0.31 | -- | 0.31 | -- | 0.31 | -- | 0.31 | -- | |
| Benzo(b)Fluoranthene | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | |
| Benzo(g,h,i)Perylene | NC | 0.35 | -- | 0.35 | -- | 0.35 | -- | 0.35 | -- | |
| Benzo(k)Fluoranthene | NC | 0.42 | -- | 0.42 | -- | 0.42 | -- | 0.42 | -- | |
| Bis(2-Chloroethoxy) Methane | NC | 0.39 | -- | 0.39 | -- | 0.39 | -- | 0.39 | -- | |
| Bis(2-Chloroethyl)Ether | 10 | 0.28 | -- | 0.28 | -- | 0.28 | -- | 0.28 | -- | |
| 2,2-Oxybis (1-Chloropropane) | 300 | 0.68 | -- | 0.68 | -- | 0.68 | -- | 0.68 | -- | |
| Bis(2-Ethylhexyl)Phthalate | 30 | 0.58 | -- | 0.58 | -- | 0.58 | -- | | 1.8 | B |
| Butylbenzylphthalate | 100 | 0.54 | -- | 0.54 | -- | 0.54 | -- | 0.54 | -- | |
| Carbazole | NC | 0.41 | -- | 0.41 | -- | 0.41 | -- | 0.41 | -- | |
| Chrysene | NC | 0.47 | -- | 0.47 | -- | 0.47 | -- | 0.47 | -- | |
| Di-n-Butylphthalate | 900 | 0.85 | -- | 0.85 | -- | 0.85 | -- | 0.85 | -- | |
| Di-n-Octylphthalate | 100 | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| Dibenzo(a,h)Anthracene | NC | 0.47 | -- | 0.47 | -- | 0.47 | -- | 0.47 | -- | |
| Dibenzofuran | NC | 0.42 | -- | 0.42 | -- | 0.42 | -- | 0.42 | -- | |
| Diethylphthalate | 5000 | 0.45 | -- | 0.45 | -- | 0.45 | -- | 0.45 | -- | |
| Dimethylphthalate | NC | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| Fluoranthene | 300 | 0.34 | -- | 0.34 | -- | 0.34 | -- | 0.34 | -- | |
| Fluorene | 300 | 0.33 | -- | 0.33 | -- | 0.33 | -- | 0.33 | -- | |
| Hexachlorobenzene | 10 | 0.39 | -- | 0.39 | -- | 0.39 | -- | 0.39 | -- | |
| Hexachlorobutadiene | 1 | 0.54 | -- | 0.54 | -- | 0.54 | -- | 0.54 | -- | |
| Hexachlorocyclopentadiene | 50 | 1.5 | -- | 1.5 | -- | 1.5 | -- | 1.5 | -- | |
| Hexachloroethane | 10 | 0.50 | -- | 0.50 | -- | 0.50 | -- | 0.50 | -- | |
| Indeno(1,2,3-cd)Pyrene | NC | 0.32 | -- | 0.32 | -- | 0.32 | -- | 0.32 | -- | |
| Isophorone | 100 | 0.30 | -- | 0.30 | -- | 0.30 | -- | 0.30 | -- | |
| N-Nitrosodi-n-Propylamine | 20 | 0.39 | -- | 0.39 | -- | 0.39 | -- | 0.39 | -- | |
| N-Nitrosodiphenylamine | 20 | 0.42 | -- | 0.42 | -- | 0.42 | -- | 0.42 | -- | |
| Naphthalene | 300 | 0.38 | -- | 0.38 | -- | 0.38 | -- | 0.38 | -- | |
| Nitrobenzene | 10 | 0.36 | -- | 0.36 | -- | 0.36 | -- | 0.36 | -- | |
| Pentachlorophenol | 1 | 0.48 | -- | 0.48 | -- | 0.48 | -- | 0.48 | -- | |
| Phenanthrene | NC | 0.39 | -- | 0.39 | -- | 0.39 | -- | 0.39 | -- | |
| Phenol | 4000 | 0.45 | -- | 0.45 | -- | 0.45 | -- | 0.45 | -- | |
| Pyrene | 200 | 0.43 | -- | 0.43 | -- | 0.43 | -- | 0.43 | -- | |
| **Total Non-Target SVOCs** | | | -- | | -- | | -- | | -- | |
| **Total Semi-Volatile Organic Compounds** | | | -- | | -- | | -- | | 1.80 | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | NC | 0.0996 | -- | 0.105 | -- | 0.0975 | -- | 0.0996 | -- | |
| Aroclor-1221 | NC | 0.103 | -- | 0.109 | -- | 0.101 | -- | 0.103 | -- | |
| Aroclor-1232 | NC | 0.0559 | -- | 0.0590 | -- | 0.0547 | -- | 0.0559 | -- | |
| Aroclor-1242 | NC | 0.118 | -- | 0.124 | -- | 0.115 | -- | 0.118 | -- | |
| Aroclor-1248 | NC | 0.0437 | -- | 0.0461 | -- | 0.0428 | -- | 0.0437 | -- | |
| Aroclor-1254 | NC | 0.0672 | -- | 0.0709 | -- | 0.0658 | -- | 0.0672 | -- | |
| Aroclor-1260 | NC | 0.0483 | -- | 0.0510 | -- | 0.0473 | -- | 0.0483 | -- | |
| **Total PCBs** | 0.5 | | -- | | -- | | -- | | -- | |
| **TOTAL ORGANIC COMPOUNDS** | NC | | 2.0 | | 1.7 | | 1.5 | | 3.3 | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | 20 | 2.39 | -- | 2.39 | -- | 2.39 | -- | 2.39 | -- | |
| Arsenic | 8 | | 5.55 J | 4.18 | -- | 4.18 | -- | 4.18 | -- | |
| Beryllium | 20 | 0.177 | -- | | 0.280 J | 0.177 | -- | | 0.840 J | |
| Cadmium | 4 | 0.190 | | 0.190 | -- | 0.190 | -- | | 0.340 J | |
| Total Chromium | 100 | | 19.6 J | | 25.2 | | 10.3 J | | 15.6 J | |
| Copper | 1000 | | 12.0 J | | 13.0 J | | 7.43 J | | 12.2 J | |
| Lead | 10 | | 7.51 | | 6.95 | | 7.01 | | 5.92 | |
| Mercury | 2 | 0.200 | -- | 0.200 | -- | 0.200 | -- | 0.200 | -- | |
| Nickel | 100 | | 6.66 J | | 7.61 J | | 3.29 J | | 22.0 | |
| Selenium | 50 | 2.04 | -- | 2.04 | -- | 2.04 | -- | 2.04 | -- | |
| Silver | NC | 0.303 | -- | 0.303 | -- | 0.303 | -- | 0.303 | -- | |
| Thallium | 10 | 2.80 | -- | 2.80 | -- | | 3.32 J | 2.80 | -- | |
| Zinc | 5000 | | 54.8 | | 56.2 | | 52.3 | | 130 | |

NOTES:

**bold** Analyte exceeds NJDEP Groundwater Quality Criteria/ Practical Quantitation Limits (GWQS) (adopted 1/7/93)
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte Detected in Blank Sample
NC No criteria established
* Duplicate of previous sample

TABLE 7
SUMMARY OF EXCEEDANCES

## SOIL

| AREA OF CONCERN | | | | 14A | 14C | 15K | 15M | 15M | 18B |
|---|---|---|---|---|---|---|---|---|---|
| AOC DESCRIPTION | | | | Former STP - Within Equalizing Tank | Seepage Pit | SE of Main Transformers | SE corner of Start up Transformers | SW corner of Start-up Transformers | Laydown Area (Sandblasting Area) |
| URSGWC SAMPLE NO. | NJDEP Residential Direct Contact | NJDEP Non-residential Direct Contact | NJDEP Impact to Groundwater | **SS-14A-4A** | **SS-14C-3A** | **SS-15K-6B** | **SS-15M-3A** | **SS-15M-4A** | **SS-18B-2B** |
| SAMPLE COLLECTION DATE | Soil | Soil | Soil | 12/13/1999 | 11/15/1999 | 11/17/1999 | 11/24/1999 | 11/29/1999 | 11/16/1999 |
| DEPTH | Cleanup | Cleanup | Cleanup | 13.5-14.0 | 0.0-0.5 | 4.0-4.5 | 0.0-0.5 | 0.0-0.5 | 1.0-2.0 |
| MATRIX | Criteria | Criteria | Criteria | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL |
| UNITS | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| **ORGANIC COMPOUNDS** | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | |
| Chlorobenzene | 37 | 680 | 1 | **1.6** | -- | -- | -- | -- | -- |
| **Total PCBs** | 0.49 | 2 | 50 | -- | -- | **0.754** | **2.1** | **1.6** | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | |
| **Metals** | | | | | | | | | |
| Antimony | 14 | 340 | NC | -- | -- | -- | -- | -- | **22.9** |
| Thallium | 2 | 2 | NC | -- | **8.3** | -- | -- | -- | -- |
| Zinc | 1500 | 1500 | NC | -- | -- | -- | -- | -- | **1790** |

## GROUNDWATER

| AREA OF CONCERN | | 1G | 15K | 15K |
|---|---|---|---|---|
| AOC DESCRIPTION | NJDEP | Gasoline/Diesel Fuel ASTs | Main and Aux. Transformers | Main and Aux. Transformers |
| URSGWC SAMPLE NO. | GWQS | **GW-1G-1A** | **GW-15K-W3** | **DUP-W** |
| SAMPLE COLLECTION DATE | | 12/21/1999 | 09/02/1999 | 09/02/1999 |
| MATRIX | | Water | Water | Water |
| UNITS | ug/l | ug/l | ug/l | ug/l |
| **ORGANIC COMPOUNDS** | | | | |
| **Volatile Organic Compounds** | | | | |
| Methyl tertiary-butyl ether | 70 | **1000** | -- | -- |
| Tetrachloroethene | 1 | -- | **6.70** | **4.80** |

Notes:
-- Compound was not analyzed, not detected, or detected below NJDEP Criteria.
NC No criteria established

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0901CR | | TB0901 | | FB0901PHC | | FB0902VOA | | TB0902 |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93486008 | | 93524009 | | 93524019 | | 93524020 | | 93524022 |
| SAMPLE COLLECTION DATE | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/02/1999 | | 09/02/1999 |
| MATRIX | | WATER | | WATER | | WATER | | WATER | | WATER |
| UNITS | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| ORGANIC COMPOUNDS | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | | NA | | NA | 500 | -- | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | |
| Acetone | | NA | 1.2 | -- | | NA | 1.6 | -- | | 20 |
| Benzene | | NA | 0.62 | -- | | NA | 0.26 | -- | 0.26 | -- |
| Bromodichloromethane | | NA | 0.62 | -- | | NA | 0.23 | -- | 0.23 | -- |
| Bromoform | | NA | 0.62 | -- | | NA | 0.5 | -- | 0.5 | -- |
| Bromomethane | | NA | 1.2 | -- | | NA | 0.47 | -- | 0.47 | -- |
| 2-Butanone | | NA | 1.2 | -- | | NA | 0.91 | -- | 0.91 | -- |
| Carbon Disulfide | | NA | 0.62 | -- | | NA | 0.56 | -- | 0.56 | -- |
| Carbon Tetrachloride | | NA | 0.62 | -- | | NA | 0.8 | -- | 0.8 | -- |
| Chlorobenzene | | NA | 0.62 | -- | | NA | 0.58 | -- | 0.58 | -- |
| Chloroethane | | NA | 1.2 | -- | | NA | 0.81 | -- | 0.81 | -- |
| Chloroform | | NA | 0.62 | -- | | NA | 0.59 | -- | 0.59 | -- |
| Chloromethane | | NA | 1.2 | -- | | NA | 0.23 | -- | 0.23 | -- |
| Dibromochloromethane | | NA | 0.62 | -- | | NA | 3.7 | -- | 3.7 | -- |
| 1,1-Dichloroethane | | NA | 0.62 | -- | | NA | 2.3 | -- | 2.3 | -- |
| 1,2-Dichloroethane | | NA | 0.62 | -- | | NA | 0.21 | -- | 0.21 | -- |
| 1,1-Dichloroethene | | NA | 0.62 | -- | | NA | 0.71 | -- | 0.71 | -- |
| Cis-1,2-Dichloroethene | | NA | 0.62 | -- | | NA | 0.52 | -- | 0.52 | -- |
| Trans-1,2-Dichloroethene | | NA | 0.62 | -- | | NA | 0.37 | -- | 0.37 | -- |
| 1,2-Dichloropropane | | NA | 0.62 | -- | | NA | 0.32 | -- | 0.32 | -- |
| 1,3-Dichloropropene (Total) | | NA | 0.62 | -- | | NA | 0.19 | -- | 0.19 | -- |
| Ethylbenzene | | NA | 0.62 | -- | | NA | 0.43 | -- | 0.43 | -- |
| 2-Hexanone | | NA | 0.62 | -- | | NA | 0.51 | -- | 0.51 | -- |
| 4-Methyl-2-Pentanone | | NA | 1.2 | -- | | NA | 0.37 | -- | 0.37 | -- |
| Methylene Chloride | | NA | 1.2 | -- | | NA | | N | | N |
| Styrene | | NA | 0.62 | -- | | NA | 0.13 | -- | 0.13 | -- |
| 1,1,2,2-Tetrachloroethane | | NA | 0.62 | -- | | NA | 0.46 | -- | 0.46 | -- |
| Tetrachloroethene | | NA | 0.62 | -- | | NA | 0.62 | -- | 0.62 | -- |
| Toluene | | NA | 0.62 | -- | | NA | 1.6 | -- | 1.6 | -- |
| 1,1,1-Trichloroethane | | NA | 0.62 | -- | | NA | 0.5 | -- | 0.5 | -- |
| 1,1,2-Trichloroethane | | NA | 0.62 | -- | | NA | 0.35 | -- | 0.35 | -- |
| Trichloroethylene | | NA | 0.62 | -- | | NA | 0.44 | -- | 0.44 | -- |
| Vinyl Chloride | | NA | 1.2 | -- | | NA | 0.71 | -- | 0.71 | -- |
| Xylenes (Total) | | NA | 0.62 | -- | | NA | 1.5 | -- | 1.5 | -- |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | | NA | | -- | | NA | | -- | | -- |
| **Total Volatile Organic Compounds** | | NA | | -- | | -- | | -- | | 20.0 |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | | NA | | NA | | NA | | NA |
| 4-Nitrophenol | | NA | | NA | | NA | | NA | | NA |
| Dibenzofuran | | NA | | NA | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | | NA | | NA | | NA | | NA |
| Diethylphthalate | | NA | | NA | | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | | NA | | NA | | NA | | NA | | NA |
| Fluorene | | NA | | NA | | NA | | NA | | NA |
| 4-Nitroaniline | | NA | | NA | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | | NA | | NA | | NA | | NA | | NA |
| N-Nitrosodiphenylamine | | NA | | NA | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | | NA | | NA | | NA | | NA | | NA |
| Hexachlorobenzene | | NA | | NA | | NA | | NA | | NA |
| Pentachlorophenol | | NA | | NA | | NA | | NA | | NA |
| Phenanthrene | | NA | | NA | | NA | | NA | | NA |
| Anthracene | | NA | | NA | | NA | | NA | | NA |
| Carbazole | | NA | | NA | | NA | | NA | | NA |
| Di-n-Butylphthalate | | NA | | NA | | NA | | NA | | NA |
| Fluoranthene | | NA | | NA | | NA | | NA | | NA |
| Pyrene | | NA | | NA | | NA | | NA | | NA |
| Butylbenzylphthalate | | NA | | NA | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Anthracene | | NA | | NA | | NA | | NA | | NA |
| Chrysene | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | | NA | | NA | | NA | | NA | | NA |
| Di-n-Octylphthalate | | NA | | NA | | NA | | NA | | NA |
| Benzo(b)Fluoranthene | | NA | | NA | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | | NA | | NA | | NA | | NA | | NA |
| Benzo(a)Pyrene | | NA | | NA | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | | NA | | NA | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | | NA | | NA | | NA | | NA | | NA |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0901CR | | TB0901 | | FB0901PHC | | FB0902VOA | | TB0902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93486008 | | 93524009 | | 93524019 | | 93524020 | | 93524022 | |
| SAMPLE COLLECTION DATE | | 09/01/1999 | | 09/01/1999 | | 09/01/1999 | | 09/02/1999 | | 09/02/1999 | |
| MATRIX | | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | MDL | ug/L | Q | ug/L | Q | ug/L | Q | ug/L | Q | ug/L | Q |
| Benzo(g,h,i)Perylene | | NA | | NA | | NA | | NA | | NA | |
| Phenol | | NA | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethyl)Ether | | NA | | NA | | NA | | NA | | NA | |
| 2-Chlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | | NA | | NA | | NA | | NA | | NA | |
| 1,4-Dichlorobenzene | | NA | | NA | | NA | | NA | | NA | |
| Benzyl Alcohol | | NA | | NA | | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | | NA | | NA | | NA | | NA | | NA | |
| 2-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| 2,2-Oxybis(1-Chloropropane) | | NA | | NA | | NA | | NA | | NA | |
| 4-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| N-Nitrosodi-n-Propylamine | | NA | | NA | | NA | | NA | | NA | |
| Hexachloroethane | | NA | | NA | | NA | | NA | | NA | |
| Nitrobenzene | | NA | | NA | | NA | | NA | | NA | |
| Isophorone | | NA | | NA | | NA | | NA | | NA | |
| 2-Nitrophenol | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dimethylphenol | | NA | | NA | | NA | | NA | | NA | |
| Benzoic Acid | | NA | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethoxy) Methane | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 1,2,4-Trichlorobenzene | | NA | | NA | | NA | | NA | | NA | |
| Naphthalene | | NA | | NA | | NA | | NA | | NA | |
| 4-Chloroaniline | | NA | | NA | | NA | | NA | | NA | |
| Hexachlorobutadiene | | NA | | NA | | NA | | NA | | NA | |
| 4-Chloro-3-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| 2-Methylnaphthalene | | NA | | NA | | NA | | NA | | NA | |
| Hexachlorocyclopentadiene | | NA | | NA | | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 2-Chloronaphthalene | | NA | | NA | | NA | | NA | | NA | |
| 2-Nitroaniline | | NA | | NA | | NA | | NA | | NA | |
| Dimethylphthalate | | NA | | NA | | NA | | NA | | NA | |
| Acenaphthylene | | NA | | NA | | NA | | NA | | NA | |
| 3-Nitroaniline | | NA | | NA | | NA | | NA | | NA | |
| Acenaphthene | | NA | | NA | | NA | | NA | | NA | |
| **Total Non-Target SVOCs** | | NA | | NA | | NA | | NA | | NA | |
| **Total Semi-Volatile Organic Compounds** | | -- | | -- | | -- | | -- | | -- | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | | NA | | NA | | NA | 0.078 | -- | | NA | |
| Aroclor-1221 | | NA | | NA | | NA | 0.16 | -- | | NA | |
| Aroclor-1232 | | NA | | NA | | NA | 0.042 | -- | | NA | |
| Aroclor-1242 | | NA | | NA | | NA | 0.12 | -- | | NA | |
| Aroclor-1248 | | NA | | NA | | NA | 0.063 | -- | | NA | |
| Aroclor-1254 | | NA | | NA | | NA | 0.14 | -- | | NA | |
| Aroclor-1260 | | NA | | NA | | NA | 0.12 | -- | | NA | |
| Aroclor-1262 | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | | -- | | -- | | -- | | -- | | -- | |
| **TOTAL ORGANIC COMPOUNDS** | | NA | | -- | | -- | | -- | | -- | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | | NA | | NA | | NA | | NA | | NA | |
| Arsenic | | NA | | NA | | NA | | NA | | NA | |
| Beryllium | | NA | | NA | | NA | | NA | | NA | |
| Cadmium | | NA | | NA | | NA | | NA | | NA | |
| Total Chromium | | 5.54 | J | NA | | NA | | NA | | NA | |
| Copper | | NA | | NA | | NA | | NA | | NA | |
| Iron | | NA | | NA | | NA | | NA | | NA | |
| Lead | | NA | | NA | | NA | | NA | | NA | |
| Mercury | | NA | | NA | | NA | | NA | | NA | |
| Nickel | | NA | | NA | | NA | | NA | | NA | |
| Selenium | | NA | | NA | | NA | | NA | | NA | |
| Silver | | NA | | NA | | NA | | NA | | NA | |
| Thallium | | NA | | NA | | NA | | NA | | NA | |
| Zinc | | NA | | NA | | NA | | NA | | NA | |
| Hexavalent Chromium | 400 | -- | | NA | | NA | | NA | | NA | |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method blank
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0902MET | | FB1115 | | TB1115 | | METHBLANK | | MEOH1115 |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93524018 | | 94453-006<br>993069A-06 | | 94462-010 | | 94462-025 | | 94462-009 |
| SAMPLE COLLECTION DATE | | 09/02/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 |
| MATRIX | | WATER | | WATER | | WATER | | SOIL | | SOIL |
| UNITS | MDL | ug/L Q | MDL | ug/l Q | MDL | ug/l Q | MDL | ug/kg Q | MDL | ug/kg Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | | NA | 500 | -- | | NA | | NA | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | |
| Acetone | | NA | 10 | -- | 1.6 | -- | 1200 | -- | 1200 | -- |
| Benzene | | NA | 5 | -- | 0.26 | -- | 620 | -- | 620 | -- |
| Bromodichloromethane | | NA | 5 | -- | 0.23 | -- | 620 | -- | 620 | -- |
| Bromoform | | NA | 5 | -- | 0.5 | -- | 620 | -- | 620 | -- |
| Bromomethane | | NA | 10 | -- | 0.47 | -- | 1200 | -- | 1200 | -- |
| 2-Butanone | | NA | 10 | -- | 0.91 | -- | 1200 | -- | 1200 | -- |
| Carbon Disulfide | | NA | 5 | -- | 0.56 | -- | 620 | -- | 620 | -- |
| Carbon Tetrachloride | | NA | 5 | -- | 0.8 | -- | 620 | -- | 620 | -- |
| Chlorobenzene | | NA | 5 | -- | 0.58 | -- | 620 | -- | 620 | -- |
| Chloroethane | | NA | 5 | -- | 0.81 | -- | 620 | -- | 620 | -- |
| Chloroform | | NA | 10 | -- | 59 | -- | 1200 | -- | 1200 | -- |
| Chloromethane | | NA | 5 | -- | 0.23 | -- | 620 | -- | 620 | -- |
| Dibromochloromethane | | NA | 10 | -- | 3.7 | -- | 620 | -- | 1200 | -- |
| 1,1-Dichloroethane | | NA | 5 | -- | 2.3 | -- | 1200 | -- | 620 | -- |
| 1,2-Dichloroethane | | NA | 5 | -- | 0.21 | -- | 620 | -- | 620 | -- |
| 1,1-Dichloroethene | | NA | 5 | -- | 0.71 | -- | 620 | -- | 620 | -- |
| Cis-1,2-Dichloroethene | | NA | 5 | -- | 0.55 | -- | 620 | -- | 620 | -- |
| Trans-1,2-Dichloroethene | | NA | 5 | -- | 0.55 | -- | 620 | -- | 620 | -- |
| 1,2-Dichloropropane | | NA | 5 | -- | 0.32 | -- | 620 | -- | 620 | -- |
| 1,3-Dichloropropene (Total) | | NA | 5 | -- | 0.5 | -- | 620 | -- | 620 | -- |
| Ethylbenzene | | NA | 5 | -- | 0.43 | -- | 620 | -- | 620 | -- |
| 2-Hexanone | | NA | 10 | -- | 0.51 | -- | 1200 | -- | 1200 | -- |
| 4-Methyl-2-Pentanone | | NA | 10 | -- | 0.37 | -- | 1200 | -- | 1200 | -- |
| Methylene Chloride | | NA | 5 | -- | 1.1 | -- | 620 | -- | 620 | -- |
| Styrene | | NA | 5 | -- | 0.13 | -- | 620 | -- | 620 | -- |
| 1,1,2,2-Tetrachloroethane | | NA | 5 | -- | 0.46 | -- | 620 | -- | 620 | -- |
| Tetrachloroethene | | NA | 5 | -- | 0.62 | -- | 620 | -- | 620 | -- |
| Toluene | | NA | 5 | -- | 0.46 | -- | 620 | -- | 620 | -- |
| 1,1,1-Trichloroethane | | NA | 5 | -- | 0.5 | -- | 620 | -- | 620 | -- |
| 1,1,2-Trichloroethane | | NA | 5 | -- | 0.35 | -- | 620 | -- | 620 | -- |
| Trichloroethylene | | NA | 5 | -- | 0.44 | -- | 620 | -- | 620 | -- |
| Vinyl Chloride | | NA | 10 | -- | 0.71 | -- | 1200 | -- | 1200 | -- |
| Xylenes (Total) | | NA | 5 | -- | 1.5 | -- | 620 | -- | 620 | -- |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | | NA | | -- | | -- | | -- | | -- |
| **Total Volatile Organic Compounds** | | NA | | -- | | -- | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | 50 | -- | | NA | | NA | | NA |
| 4-Nitrophenol | | NA | 50 | -- | | NA | | NA | | NA |
| Dibenzofuran | | NA | 10 | -- | | NA | | NA | | NA |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | 10 | -- | | NA | | NA | | NA |
| Diethylphthalate | | NA | | 0.2 | J | NA | | NA | | NA |
| 4-Chlorophenyl-Phenyl Ether | | NA | 10 | -- | | NA | | NA | | NA |
| Fluorene | | NA | 10 | -- | | NA | | NA | | NA |
| 4-Nitroaniline | | NA | 20 | -- | | NA | | NA | | NA |
| 4,6-Dinitro-2-Methylphenol | | NA | 50 | -- | | NA | | NA | | NA |
| N-Nitrosodiphenylamine | | NA | 10 | -- | | NA | | NA | | NA |
| 4-Bromophenyl-Phenylether | | NA | 10 | -- | | NA | | NA | | NA |
| Hexachlorobenzene | | NA | 10 | -- | | NA | | NA | | NA |
| Pentachlorophenol | | NA | 10 | -- | | NA | | NA | | NA |
| Phenanthrene | | NA | 10 | -- | | NA | | NA | | NA |
| Anthracene | | NA | 10 | -- | | NA | | NA | | NA |
| Carbazole | | NA | 10 | -- | | NA | | NA | | NA |
| Di-n-Butylphthalate | | NA | | | N | NA | | NA | | NA |
| Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA |
| Pyrene | | NA | 10 | -- | | NA | | NA | | NA |
| Butylbenzylphthalate | | NA | 10 | -- | | NA | | NA | | NA |
| 3,3'-Dichlorobenzidine | | NA | 20 | -- | | NA | | NA | | NA |
| Benzo(a)Anthracene | | NA | 10 | -- | | NA | | NA | | NA |
| Chrysene | | NA | 10 | -- | | NA | | NA | | NA |
| Bis(2-Ethylhexyl)Phthalate | | NA | | | N | NA | | NA | | NA |
| Di-n-Octylphthalate | | NA | | | N | NA | | NA | | NA |
| Benzo(b)Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA |
| Benzo(k)Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA |
| Benzo(a)Pyrene | | NA | 10 | -- | | NA | | NA | | NA |
| Indeno(1,2,3-cd)Pyrene | | NA | 10 | -- | | NA | | NA | | NA |
| Dibenzo(a,h)Anthracene | | NA | 10 | -- | | NA | | NA | | NA |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0902MET | | FB1115 | | TB1115 | | METHBLANK | | MEOH1115 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93524018 | | 94453-006<br>993069A-06 | | 94462-010 | | 94462-025 | | 94462-009 | |
| SAMPLE COLLECTION DATE | | 09/02/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | | 11/15/1999 | |
| MATRIX | | WATER | | WATER | | WATER | | SOIL | | SOIL | |
| UNITS | MDL | ug/L | Q MDL | ug/l | Q MDL | ug/l | Q MDL | ug/kg | Q MDL | ug/kg | Q |
| Benzo(g,h,i)Perylene | | NA | 10 | -- | | NA | | NA | | NA | |
| Phenol | | NA | 10 | -- | | NA | | NA | | NA | |
| Bis(2-Chloroethyl)Ether | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Chlorophenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| 1,4-Dichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzyl Alcohol | | NA | 10 | -- | | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 2,2-Oxybis(1-Chloropropane) | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA | |
| N-Nitrosodi-n-Propylamine | | NA | 10 | -- | | NA | | NA | | NA | |
| Hexachloroethane | | NA | 10 | -- | | NA | | NA | | NA | |
| Nitrobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| Isophorone | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Nitrophenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 2,4-Dimethylphenol | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzoic Acid | | NA | 50 | -- | | NA | | NA | | NA | |
| Bis(2-Chloroethoxy) Methane | | NA | 10 | -- | | NA | | NA | | NA | |
| 2,4-Dichlorophenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 1,2,4-Trichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| Naphthalene | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Chloroaniline | | NA | 10 | -- | | NA | | NA | | NA | |
| Hexachlorobutadiene | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Chloro-3-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Methylnaphthalene | | NA | 10 | -- | | NA | | NA | | NA | |
| Hexachlorocyclopentadiene | | NA | 10 | -- | | NA | | NA | | NA | |
| 2,4,6-Trichlorophenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Chloronaphthalene | | NA | 10 | -- | | NA | | NA | | NA | |
| 2-Nitroaniline | | NA | 10 | -- | | NA | | NA | | NA | |
| Dimethylphthalate | | NA | 10 | -- | | NA | | NA | | NA | |
| Acenaphthylene | | NA | 10 | -- | | NA | | NA | | NA | |
| 3-Nitroaniline | | NA | 50 | -- | | NA | | NA | | NA | |
| Acenaphthene | | NA | 10 | -- | | NA | | NA | | NA | |
| **Total Non-Target SVOCs** | | NA | | 12 | | NA | | NA | | NA | |
| **Total Semi-Volatile Organic Compounds** | | -- | | 12.2 | | NA | | NA | | NA | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | | NA | 0.0946 | -- | | NA | | NA | | NA | |
| Aroclor-1221 | | NA | 0.0981 | -- | | NA | | NA | | NA | |
| Aroclor-1232 | | NA | 0.0531 | -- | | NA | | NA | | NA | |
| Aroclor-1242 | | NA | 0.112 | -- | | NA | | NA | | NA | |
| Aroclor-1248 | | NA | 0.0415 | -- | | NA | | NA | | NA | |
| Aroclor-1254 | | NA | 0.0638 | -- | | NA | | NA | | NA | |
| Aroclor-1260 | | NA | 0.0459 | -- | | NA | | NA | | NA | |
| Aroclor-1262 | | NA | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | | NA | | NA | | NA | | NA | | NA | |
| **Total PCBs** | | -- | | -- | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | | NA | | 12.2 | | -- | | -- | | -- | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | | NA | 7.0 | -- | J | NA | | NA | | NA | |
| Arsenic | | NA | 4.0 | -- | | NA | | NA | | NA | |
| Beryllium | | NA | 1.0 | -- | | NA | | NA | | NA | |
| Cadmium | | NA | 1.0 | -- | | NA | | NA | | NA | |
| Total Chromium | 0.239 | -- | 2.0 | -- | | NA | | NA | | NA | |
| Copper | | NA | 1.0 | -- | | NA | | NA | | NA | |
| Iron | | NA | | 52.5 | J | NA | | NA | | NA | |
| Lead | | NA | 3.0 | -- | J | NA | | NA | | NA | |
| Mercury | | NA | 0.2 | -- | | NA | | NA | | NA | |
| Nickel | | NA | 3.0 | -- | | NA | | NA | | NA | |
| Selenium | | NA | 5.0 | -- | J | NA | | NA | | NA | |
| Silver | | NA | 1.0 | -- | | NA | | NA | | NA | |
| Thallium | | NA | 10.0 | -- | J | NA | | NA | | NA | |
| Zinc | | NA | | 52.0 | | NA | | NA | | NA | |
| Hexavalent Chromium | 400 | -- | | NA | | NA | | NA | | NA | |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1116 | | | FB1116A | | | FB1117 | | | FB1117A | | | METH1117 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 94462-023 993084B-01 | | | 94462-024 | | | 94476-011 | | | 94476-021 | | | 94476-022 | |
| SAMPLE COLLECTION DATE | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/17/1999 | |
| MATRIX | | WATER | | | WATER | | | WATER | | | WATER | | | SOIL | |
| UNITS | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/kg | Q |
| ORGANIC COMPOUNDS | | | | | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 500 | -- | | 500 | -- | | | NA | | 500 | -- | | | NA | |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | |
| Acetone | | NA | | | NA | | | NA | | 1.6 | -- | | 1200 | -- | |
| Benzene | | NA | | | NA | | | NA | | 0.26 | -- | | 620 | -- | |
| Bromodichloromethane | | NA | | | NA | | | NA | | 0.23 | -- | | 620 | -- | |
| Bromoform | | NA | | | NA | | | NA | | 0.5 | -- | | 620 | -- | |
| Bromomethane | | NA | | | NA | | | NA | | 0.47 | -- | | 1200 | -- | |
| 2-Butanone | | NA | | | NA | | | NA | | 0.91 | -- | | 1200 | -- | |
| Carbon Disulfide | | NA | | | NA | | | NA | | 0.56 | -- | | 620 | -- | |
| Carbon Tetrachloride | | NA | | | NA | | | NA | | 0.8 | -- | | 620 | -- | |
| Chlorobenzene | | NA | | | NA | | | NA | | 0.58 | -- | | 620 | -- | |
| Chloroethane | | NA | | | NA | | | NA | | 0.81 | -- | | 620 | -- | |
| Chloroform | | NA | | | NA | | | NA | | 0.59 | -- | | 1200 | -- | |
| Chloromethane | | NA | | | NA | | | NA | | 0.23 | -- | | 620 | -- | |
| Dibromochloromethane | | NA | | | NA | | | NA | | 3.7 | -- | | 1200 | -- | |
| 1,1-Dichloroethane | | NA | | | NA | | | NA | | 2.3 | -- | | 620 | -- | |
| 1,2-Dichloroethane | | NA | | | NA | | | NA | | 0.21 | -- | | 620 | -- | |
| 1,1-Dichloroethene | | NA | | | NA | | | NA | | 0.71 | -- | | 620 | -- | |
| Cis-1,2-Dichloroethene | | NA | | | NA | | | NA | | 0.55 | -- | | 620 | -- | |
| Trans-1,2-Dichloroethene | | NA | | | NA | | | NA | | 0.55 | -- | | 620 | -- | |
| 1,2-Dichloropropane | | NA | | | NA | | | NA | | 0.32 | -- | | 620 | -- | |
| 1,3-Dichloropropene (Total) | | NA | | | NA | | | NA | | 0.5 | -- | | 620 | -- | |
| Ethylbenzene | | NA | | | NA | | | NA | | 0.43 | -- | | 620 | -- | |
| 2-Hexanone | | NA | | | NA | | | NA | | 0.51 | -- | | 1200 | -- | |
| 4-Methyl-2-Pentanone | | NA | | | NA | | | NA | | 0.37 | -- | | 1200 | -- | |
| Methylene Chloride | | NA | | | NA | | | NA | | | 1.7 | | 620 | -- | |
| Styrene | | NA | | | NA | | | NA | | 0.13 | -- | | 620 | -- | |
| 1,1,2,2-Tetrachloroethane | | NA | | | NA | | | NA | | 0.46 | -- | | 620 | -- | |
| Tetrachloroethene | | NA | | | NA | | | NA | | 0.62 | -- | | 620 | -- | |
| Toluene | | NA | | | NA | | | NA | | 0.46 | -- | | 620 | -- | |
| 1,1,1-Trichloroethane | | NA | | | NA | | | NA | | 0.5 | -- | | 620 | -- | |
| 1,1,2-Trichloroethane | | NA | | | NA | | | NA | | 0.35 | -- | | 620 | -- | |
| Trichloroethylene | | NA | | | NA | | | NA | | 0.44 | -- | | 620 | -- | |
| Vinyl Chloride | | NA | | | NA | | | NA | | 0.71 | -- | | 1200 | -- | |
| Xylenes (Total) | | NA | | | NA | | | NA | | 1.5 | -- | | 620 | -- | |
| Tertiary-Butyl Alcohol | | NA | | | NA | | | NA | | | NA | | | NA | |
| Methyl T-Butyl Ether | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target VOCs** | | NA | | | NA | | | NA | | | 9.6 | J | | -- | |
| **Total Volatile Organic Compounds** | | NA | | | NA | | | NA | | | 11.3 | | | -- | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Nitrophenol | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| Dibenzofuran | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Dinitrotoluene (2,4-/2,6-mixture) | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Diethylphthalate | | 0.2 | J | | NA | | | NA | | | NA | | | NA | |
| 4-Chlorophenyl-Phenyl Ether | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Fluorene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Nitroaniline | 20 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4,6-Dinitro-2-Methylphenol | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodiphenylamine | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Bromophenyl-Phenylether | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Pentachlorophenol | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| Phenanthrene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Anthracene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Carbazole | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Di-n-Butylphthalate | | 0.6 | JB | | NA | | | NA | | | NA | | | NA | |
| Fluoranthene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Pyrene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Butylbenzylphthalate | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 3,3'-Dichlorobenzidine | 20 | -- | | | NA | | | NA | | | NA | | | NA | |
| Benzo(a)Anthracene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Chrysene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Ethylhexyl)Phthalate | | 0.9 | JB | | NA | | | NA | | | NA | | | NA | |
| Di-n-Octylphthalate | 10 | 0.3 | JB | | NA | | | NA | | | NA | | | NA | |
| Benzo(b)Fluoranthene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Benzo(k)Fluoranthene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Benzo(a)Pyrene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Indeno(1,2,3-cd)Pyrene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Dibenzo(a,h)Anthracene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1116 | | | FB1116A | | | FB1117 | | | FB1117A | | | METH1117 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 94462-023 | | | 94462-024 | | | 94476-011 | | | 94476-021 | | | 94476-022 | |
| | | 993084B-01 | | | | | | | | | | | | | |
| SAMPLE COLLECTION DATE | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/16/1999 | | | 11/17/1999 | |
| MATRIX | | WATER | | | WATER | | | WATER | | | WATER | | | SOIL | |
| UNITS | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/kg | Q |
| Benzo(g,h,i)Perylene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Phenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethyl)Ether | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Chlorophenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 1,3-Dichlorobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 1,4-Dichlorobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Benzyl Alcohol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 1,2-Dichlorobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Methylphenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2,2-Oxybis(1-Chloropropane) | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Methylphenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| N-Nitrosodi-n-Propylamine | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Hexachloroethane | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Nitrobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Isophorone | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Nitrophenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dimethylphenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Benzoic Acid | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| Bis(2-Chloroethoxy) Methane | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2,4-Dichlorophenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 1,2,4-Trichlorobenzene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Naphthalene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Chloroaniline | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorobutadiene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 4-Chloro-3-Methylphenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Methylnaphthalene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Hexachlorocyclopentadiene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2,4,6-Trichlorophenol | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2,4,5-Trichlorophenol | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Chloronaphthalene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 2-Nitroaniline | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Dimethylphthalate | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| Acenaphthylene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| 3-Nitroaniline | 50 | -- | | | NA | | | NA | | | NA | | | NA | |
| Acenaphthene | 10 | -- | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target SVOCs** | | 321 | JB | | NA | | | NA | | | NA | | | NA | |
| **Total Semi-Volatile Organic Compounds** | | 323.0 | | | NA | | | NA | | | NA | | | NA | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | | | | |
| Aroclor-1016 | 0.200 | -- | | 0.103 | -- | | | NA | | 0.0946 | -- | | | NA | |
| Aroclor-1221 | 0.200 | -- | | 0.107 | -- | | | NA | | 0.0981 | -- | | | NA | |
| Aroclor-1232 | 0.200 | -- | | 0.0577 | -- | | | NA | | 0.0531 | -- | | | NA | |
| Aroclor-1242 | 0.200 | -- | | 0.122 | -- | | | NA | | 0.112 | -- | | | NA | |
| Aroclor-1248 | 0.200 | -- | | 0.0451 | -- | | | NA | | 0.0415 | -- | | | NA | |
| Aroclor-1254 | 0.200 | -- | | 0.0693 | -- | | | NA | | 0.0638 | -- | | | NA | |
| Aroclor-1260 | 0.200 | -- | | 0.0499 | -- | | | NA | | 0.0459 | -- | | | NA | |
| Aroclor-1262 | | NA | | | NA | | | NA | | | NA | | | NA | |
| Aroclor-1268 | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total PCBs** | | -- | | | -- | | | NA | | | -- | | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | | 323 | | | -- | | | NA | | | 11.3 | | | -- | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | | | | | |
| Antimony | 2.39 | -- | | 2.39 | -- | | | NA | | | NA | | | NA | |
| Arsenic | | 4.51 | J | 4.18 | -- | | | NA | | | NA | | | NA | |
| Beryllium | 0.177 | -- | | 0.1770 | -- | | | NA | | | NA | | | NA | |
| Cadmium | 0.1900 | -- | | 0.1900 | -- | | | NA | | | NA | | | NA | |
| Total Chromium | 0.239 | -- | | | 3.71 | J | 0.239 | -- | | | NA | | | NA | |
| Copper | 0.603 | -- | | 0.603 | -- | | | NA | | | NA | | | NA | |
| Iron | 52.5 | -- | | 52.5 | -- | | | NA | | | NA | | | NA | |
| Lead | | 1.09 | J | | 1.52 | J | | NA | | | NA | | | NA | |
| Mercury | 0.200 | -- | | 0.200 | -- | | | NA | | | NA | | | NA | |
| Nickel | 0.443 | -- | | | 3.23 | J | | NA | | | NA | | | NA | |
| Selenium | 2.04 | -- | | 2.04 | -- | | | NA | | | NA | | | NA | |
| Silver | | 0.42 | J | 0.303 | -- | | | NA | | | NA | | | NA | |
| Thallium | | 2.88 | J | 2.80 | -- | | | NA | | | NA | | | NA | |
| Zinc | | 17.2 | J | | 18.3 | J | | NA | | | NA | | | NA | |
| Hexavalent Chromium | | NA | | | NA | | 10 | -- | | | NA | | | NA | |

**NOTES:**
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1118 | | 1118METBLK | | 1119METHBLANK | | FB1119 (9:00) | | FB1119 (9:30) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 94492-013 | | 00115-001 | | 94519-008 | | 993125A-10<br>94508-024 | | 993125A-09<br>94508-021 | |
| SAMPLE COLLECTION DATE | | 11/18/1999 | | 11/18/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | |
| MATRIX | | WATER | | SOIL | | SOIL | | WATER | | WATER | |
| UNITS | | ug/l | | ug/kg | | ug/kg | | ug/l | | ug/l | |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q | |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 500 | -- | | NA | | NA | 500 | -- | 500 | -- | |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| Benzene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Bromodichloromethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Bromoform | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Bromomethane | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| 2-Butanone | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| Carbon Disulfide | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Carbon Tetrachloride | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Chlorobenzene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Chloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Chloroform | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| Chloromethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Dibromochloromethane | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| 1,1-Dichloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,2-Dichloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,1-Dichloroethene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Cis-1,2-Dichloroethene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Trans-1,2-Dichloroethene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,2-Dichloropropane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,3-Dichloropropene (Total) | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Ethylbenzene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 2-Hexanone | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| 4-Methyl-2-Pentanone | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| Methylene Chloride | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Styrene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,1,2,2-Tetrachloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Tetrachloroethene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Toluene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,1,1-Trichloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| 1,1,2-Trichloroethane | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Trichloroethylene | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Vinyl Chloride | | NA | 1200 | -- | 1200 | -- | | NA | | NA | |
| Xylenes (Total) | | NA | 620 | -- | 620 | -- | | NA | | NA | |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | | NA | | NA | |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | NA | | NA | |
| **Total Non-Target VOCs** | | NA | | -- | | -- | | NA | | NA | |
| **Total Volatile Organic Compounds** | | NA | | -- | | -- | | NA | | NA | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | | NA | | NA | 50 | -- | | NA | |
| 4-Nitrophenol | | NA | | NA | | NA | 50 | -- | | NA | |
| Dibenzofuran | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Diethylphthalate | | NA | | NA | | NA | | 1 | J | 0.2 | J |
| 4-Chlorophenyl-Phenyl Ether | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Fluorene | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| 4-Nitroaniline | | NA | | NA | | NA | 20 | -- | 20 | -- | |
| 4,6-Dinitro-2-Methylphenol | | NA | | NA | | NA | 50 | -- | | NA | |
| N-Nitrosodiphenylamine | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| 4-Bromophenyl-Phenylether | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Hexachlorobenzene | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Pentachlorophenol | | NA | | NA | | NA | 50 | -- | | NA | |
| Phenanthrene | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Anthracene | | NA | | NA | | NA | 10 | -- | 10 | -- | |
| Carbazole | | NA | | NA | | NA | 10 | -- | | NA | |
| Di-n-Butylphthalate | | NA | | NA | | NA | | 0.3 | JB | 0.3 | JB |
| Fluoranthene | | NA | | NA | | NA | 10 | -- | | NA | |
| Pyrene | | NA | | NA | | NA | 10 | -- | | NA | |
| Butylbenzylphthalate | | NA | | NA | | NA | 10 | -- | | NA | |
| 3,3'-Dichlorobenzidine | | NA | | NA | | NA | 20 | -- | | NA | |
| Benzo(a)Anthracene | | NA | | NA | | NA | 10 | -- | | NA | |
| Chrysene | | NA | | NA | | NA | 10 | -- | | NA | |
| Bis(2-Ethylhexyl)Phthalate | | NA | | NA | | NA | | 2 | JB | 0.7 | JB |
| Di-n-Octylphthalate | | NA | | NA | | NA | | 0.2 | JB | NA | |
| Benzo(b)Fluoranthene | | NA | | NA | | NA | 10 | -- | | NA | |
| Benzo(k)Fluoranthene | | NA | | NA | | NA | 10 | -- | | NA | |
| Benzo(a)Pyrene | | NA | | NA | | NA | 10 | -- | | NA | |
| Indeno(1,2,3-cd)Pyrene | | NA | | NA | | NA | 10 | -- | | NA | |
| Dibenzo(a,h)Anthracene | | NA | | NA | | NA | 10 | -- | | NA | |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | FB1118 | | 1118METBLK | | 1119METHBLANK | | FB1119 (9:00) | | FB1119 (9:30) | |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | 94492-013 | | 00115-001 | | 94519-008 | | 993125A-10<br>94508-024 | | 993125A-09<br>94508-021 | |
| SAMPLE COLLECTION DATE | 11/18/1999 | | 11/18/1999 | | 11/19/1999 | | 11/19/1999 | | 11/19/1999 | |
| MATRIX | WATER | | SOIL | | SOIL | | WATER | | WATER | |
| UNITS | ug/l | | ug/kg | | ug/kg | | ug/l | | ug/l | |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q |
| Benzo(g,h,i)Perylene | NA | | NA | | NA | | 10 | -- | NA | |
| Phenol | NA | | NA | | NA | | 10 | -- | NA | |
| Bis(2-Chloroethyl)Ether | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2-Chlorophenol | NA | | NA | | NA | | 10 | -- | NA | |
| 1,3-Dichlorobenzene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 1,4-Dichlorobenzene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Benzyl Alcohol | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 1,2-Dichlorobenzene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2-Methylphenol | NA | | NA | | NA | | 10 | -- | NA | |
| 2,2-Oxybis(1-Chloropropane) | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 4-Methylphenol | NA | | NA | | NA | | 10 | -- | NA | |
| N-Nitrosodi-n-Propylamine | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Hexachloroethane | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Nitrobenzene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Isophorone | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2-Nitrophenol | NA | | NA | | NA | | 10 | -- | NA | |
| 2,4-Dimethylphenol | NA | | NA | | NA | | 10 | -- | NA | |
| Benzoic Acid | NA | | NA | | NA | | 10 | -- | NA | |
| Bis(2-Chloroethoxy) Methane | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2,4-Dichlorophenol | NA | | NA | | NA | | 10 | -- | NA | |
| 1,2,4-Trichlorobenzene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Naphthalene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 4-Chloroaniline | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Hexachlorobutadiene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 4-Chloro-3-Methylphenol | NA | | NA | | NA | | 10 | -- | NA | |
| 2-Methylnaphthalene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Hexachlorocyclopentadiene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2,4,6-Trichlorophenol | NA | | NA | | NA | | 10 | -- | NA | |
| 2,4,5-Trichlorophenol | NA | | NA | | NA | | 10 | -- | NA | |
| 2-Chloronaphthalene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 2-Nitroaniline | NA | | NA | | NA | | 10 | -- | 50 | -- |
| Dimethylphthalate | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Acenaphthylene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| 3-Nitroaniline | NA | | NA | | NA | | 10 | -- | 10 | -- |
| Acenaphthene | NA | | NA | | NA | | 10 | -- | 10 | -- |
| **Total Non-Target SVOCs** | NA | | NA | | NA | | | 126 JB | | 155 JB |
| **Total Semi-Volatile Organic Compounds** | NA | | NA | | NA | | | 129.5 | | 156.2 |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1221 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1232 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1242 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1248 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1254 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1260 | NA | | NA | | NA | | 0.200 | -- | 0.200 | -- |
| Aroclor-1262 | NA | | NA | | NA | | | NA | | NA |
| Aroclor-1268 | NA | | NA | | NA | | | NA | | NA |
| **Total PCBs** | NA | | NA | | NA | | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | -- | | -- | | -- | | | 129.5 | | 156.2 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | NA | | NA | | NA | | 7.0 | -- | 7.0 | -- |
| Arsenic | NA | | NA | | NA | | 4.0 | -- | 4.0 | -- |
| Beryllium | NA | | NA | | NA | | 1.0 | -- | 1.0 | -- |
| Cadmium | NA | | NA | | NA | | 1.0 | -- | 1.0 | -- |
| Total Chromium | NA | | NA | | NA | | 2.0 | -- | 2.0 | -- |
| Copper | NA | | NA | | NA | | 1.0 | -- | 1.0 | -- |
| Iron | NA | | NA | | NA | | 35.0 | -- | 35.0 | -- |
| Lead | NA | | NA | | NA | | 3.0 | -- | 3.0 | -- |
| Mercury | NA | | NA | | NA | | 0.10 | -- | 0.10 | -- |
| Nickel | NA | | NA | | NA | | 3.0 | -- | 3.0 | -- |
| Selenium | NA | | NA | | NA | | 5.0 | -- | 5.0 | -- |
| Silver | NA | | NA | | NA | | 1.0 | -- | 1.0 | -- |
| Thallium | NA | | NA | | NA | | 10.0 | -- | 10.0 | -- |
| Zinc | NA | | NA | | NA | | 3.0 | -- | 3.0 | -- |
| Hexavalent Chromium | NA | | NA | | NA | | | NA | | NA |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | TB1119 | | FB1122 | | | METH BLN | | | FB112399 | | | FB1129 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 00115-002 | | 94519-015<br>993136A-06 | | | 94519-016 | | | 171032 | | | 171788 | |
| SAMPLE COLLECTION DATE | | 11/19/1999 | | 11/22/1999 | | | 11/22/1999 | | | 11/23/1999 | | | 11/29/1999 | |
| MATRIX | | WATER | | WATER | | | SOIL | | | WATER | | | WATER | |
| UNITS | MDL | ug/l | Q | MDL | ug/l | Q | MDL | ug/kg | Q | MDL | ug/l | Q | MDL | ug/l | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | | NA | | 500 | -- | | | NA | | 1000 | -- | | | NA | |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | |
| Acetone | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| Benzene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Bromodichloromethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Bromoform | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Bromomethane | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| 2-Butanone | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| Carbon Disulfide | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Carbon Tetrachloride | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Chlorobenzene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Chloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Chloroform | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| Chloromethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Dibromochloromethane | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| 1,1-Dichloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,2-Dichloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,1-Dichloroethene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Cis-1,2-Dichloroethene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Trans-1,2-Dichloroethene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,2-Dichloropropane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,3-Dichloropropene (Total) | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Ethylbenzene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 2-Hexanone | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| 4-Methyl-2-Pentanone | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| Methylene Chloride | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Styrene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,1,2,2-Tetrachloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Tetrachloroethene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Toluene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,1,1-Trichloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| 1,1,2-Trichloroethane | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Trichloroethylene | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Vinyl Chloride | 1200 | -- | | | NA | | 1200 | -- | | | NA | | | NA | |
| Xylenes (Total) | 620 | -- | | | NA | | 620 | -- | | | NA | | | NA | |
| Tertiary-Butyl Alcohol | | NA | | | NA | | | NA | | | NA | | | NA | |
| Methyl T-Butyl Ether | | NA | | | NA | | | NA | | | NA | | | NA | |
| **Total Non-Target VOCs** | | -- | | | NA | | | -- | | | NA | | | NA | |
| **Total Volatile Organic Compounds** | | -- | | | NA | | | -- | | | NA | | | NA | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | | 50 | -- | | | NA | | | NA | | 3.7 | -- | |
| 4-Nitrophenol | | NA | | 50 | -- | | | NA | | | NA | | 2.8 | -- | |
| Dibenzofuran | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | | 10 | -- | | | NA | | | NA | | 0.8 | -- | |
| Diethylphthalate | | NA | | 10 | 1 | J | | NA | | | NA | | 0.5 | -- | |
| 4-Chlorophenyl-Phenyl Ether | | NA | | 10 | -- | | | NA | | | NA | | 0.8 | -- | |
| Fluorene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| 4-Nitroaniline | | NA | | 20 | -- | | | NA | | | NA | | 0.8 | -- | |
| 4,6-Dinitro-2-Methylphenol | | NA | | 50 | -- | | | NA | | | NA | | 5.0 | -- | |
| N-Nitrosodiphenylamine | | NA | | 10 | -- | | | NA | | | NA | | 0.4 | -- | |
| 4-Bromophenyl-Phenylether | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |
| Hexachlorobenzene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Pentachlorophenol | | NA | | 50 | -- | | | NA | | | NA | | 2.0 | -- | |
| Phenanthrene | | NA | | 10 | -- | | | NA | | | NA | | 0.5 | -- | |
| Anthracene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Carbazole | | NA | | 10 | -- | | | NA | | | NA | | 0.8 | -- | |
| Di-n-Butylphthalate | | NA | | | | N | | NA | | | NA | | 0.6 | -- | |
| Fluoranthene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Pyrene | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |
| Butylbenzylphthalate | | NA | | | | N | | NA | | | NA | | 0.5 | -- | |
| 3,3'-Dichlorobenzidine | | NA | | 20 | -- | | | NA | | | NA | | 3.5 | -- | |
| Benzo(a)Anthracene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Chrysene | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |
| Bis(2-Ethylhexyl)Phthalate | | NA | | | | N | | NA | | | NA | | 4.1 | -- | |
| Di-n-Octylphthalate | | NA | | | | N | | NA | | | NA | | 0.4 | -- | |
| Benzo(b)Fluoranthene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Benzo(k)Fluoranthene | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |
| Benzo(a)Pyrene | | NA | | 10 | -- | | | NA | | | NA | | 0.6 | -- | |
| Indeno(1,2,3-cd)Pyrene | | NA | | 10 | -- | | | NA | | | NA | | 0.8 | -- | |
| Dibenzo(a,h)Anthracene | | NA | | 10 | -- | | | NA | | | NA | | 0.7 | -- | |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | TB1119 | | FB1122 | | | METH BLN | | FB112399 | | FB1129 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 00115-002 | | 94519-015<br>993136A-06 | | | 94519-016 | | 171032 | | 171788 |
| SAMPLE COLLECTION DATE | | 11/19/1999 | | 11/22/1999 | | | 11/22/1999 | | 11/23/1999 | | 11/29/1999 |
| MATRIX | | WATER | | WATER | | | SOIL | | WATER | | WATER |
| UNITS | MDL | ug/l | Q MDL | ug/l | Q | MDL | ug/kg | Q MDL | ug/l | Q MDL | ug/l Q |
| Benzo(g,h,i)Perylene | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| Phenol | | NA | 10 | -- | | | NA | | NA | 2.0 | -- |
| Bis(2-Chloroethyl)Ether | | NA | 10 | -- | | | NA | | NA | 0.7 | -- |
| 2-Chlorophenol | | NA | 10 | -- | | | NA | | NA | 3.5 | -- |
| 1,3-Dichlorobenzene | | NA | 10 | -- | | | NA | | NA | 1.4 | -- |
| 1,4-Dichlorobenzene | | NA | 10 | -- | | | NA | | NA | 1.5 | -- |
| Benzyl Alcohol | | NA | 10 | -- | | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | | NA | 10 | -- | | | NA | | NA | 1.2 | -- |
| 2-Methylphenol | | NA | 10 | -- | | | NA | | NA | 3.9 | -- |
| 2,2-Oxybis(1-Chloropropane) | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| 4-Methylphenol | | NA | 10 | -- | | | NA | | NA | 3.8 | -- |
| N-Nitrosodi-n-Propylamine | | NA | 10 | -- | | | NA | | NA | 1.2 | -- |
| Hexachloroethane | | NA | 10 | -- | | | NA | | NA | 2.2 | -- |
| Nitrobenzene | | NA | 10 | -- | | | NA | | NA | 0.5 | -- |
| Isophorone | | NA | 10 | -- | | | NA | | NA | 0.5 | -- |
| 2-Nitrophenol | | NA | 10 | -- | | | NA | | NA | 3.9 | -- |
| 2,4-Dimethylphenol | | NA | 10 | -- | | | NA | | NA | 3.3 | -- |
| Benzoic Acid | | NA | 50 | -- | | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| 2,4-Dichlorophenol | | NA | 10 | -- | | | NA | | NA | 3.2 | -- |
| 1,2,4-Trichlorobenzene | | NA | 10 | -- | | | NA | | NA | 1.1 | -- |
| Naphthalene | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| 4-Chloroaniline | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| Hexachlorobutadiene | | NA | 10 | -- | | | NA | | NA | 1.8 | -- |
| 4-Chloro-3-Methylphenol | | NA | 10 | -- | | | NA | | NA | 3.8 | -- |
| 2-Methylnaphthalene | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| Hexachlorocyclopentadiene | | NA | 10 | -- | | | NA | | NA | 1.2 | -- |
| 2,4,6-Trichlorophenol | | NA | 10 | -- | | | NA | | NA | 3.6 | -- |
| 2,4,5-Trichlorophenol | | NA | 50 | -- | | | NA | | NA | 3.8 | -- |
| 2-Chloronaphthalene | | NA | 10 | -- | | | NA | | NA | 0.6 | -- |
| 2-Nitroaniline | | NA | 10 | -- | | | NA | | NA | 0.6 | -- |
| Dimethylphthalate | | NA | 10 | -- | | | NA | | NA | 0.5 | -- |
| Acenaphthylene | | NA | 10 | -- | | | NA | | NA | 0.9 | -- |
| 3-Nitroaniline | | NA | 50 | -- | | | NA | | NA | 1.8 | -- |
| Acenaphthene | | NA | 10 | -- | | | NA | | NA | 0.8 | -- |
| **Total Non-Target SVOCs** | | NA | | 16 | JN | | NA | | NA | | -- |
| **Total Semi-Volatile Organic Compounds** | | NA | | 17.0 | | | NA | | NA | | -- |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | | NA | 0.200 | -- | | | NA | 0.20 | -- | 0.20 | -- |
| Aroclor-1221 | | NA | 0.200 | -- | | | NA | 0.30 | -- | 0.30 | -- |
| Aroclor-1232 | | NA | 0.200 | -- | | | NA | 0.40 | -- | 0.40 | -- |
| Aroclor-1242 | | NA | 0.200 | -- | | | NA | 0.30 | -- | 0.30 | -- |
| Aroclor-1248 | | NA | 0.200 | -- | | | NA | 0.30 | -- | 0.30 | -- |
| Aroclor-1254 | | NA | 0.200 | -- | | | NA | 0.40 | -- | 0.40 | -- |
| Aroclor-1260 | | NA | 0.200 | -- | | | NA | 0.20 | -- | 0.20 | -- |
| Aroclor-1262 | | NA | | NA | | | NA | 0.20 | -- | 0.20 | -- |
| Aroclor-1268 | | NA | | NA | | | NA | 0.20 | -- | 0.20 | -- |
| **Total PCBs** | | NA | | -- | | | NA | | -- | | -- |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | 17 | | | -- | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | | NA | 60.0 | -- | | | NA | | NA | 5.8 | -- |
| Arsenic | | NA | 10.0 | -- | | | NA | | NA | 3.2 | -- |
| Beryllium | | NA | 5.0 | -- | | | NA | | NA | 0.30 | -- |
| Cadmium | | NA | 5.0 | -- | | | NA | | NA | 0.40 | -- |
| Total Chromium | | NA | 10.0 | -- | | | NA | | NA | 1.6 | -- |
| Copper | | NA | 25.0 | -- | | | NA | | NA | 3.7 | -- |
| Iron | | NA | | NA | | | NA | | NA | | NA |
| Lead | | NA | 3.0 | -- | | | NA | | NA | 2.3 | -- |
| Mercury | | NA | 0.020 | -- | J | | NA | | NA | 0.10 | -- |
| Nickel | | NA | 40.0 | -- | | | NA | | NA | 1.6 | -- |
| Selenium | | NA | 5.0 | -- | J | | NA | | NA | 4.2 | -- |
| Silver | | NA | 10.0 | -- | | | NA | | NA | 1.4 | -- |
| Thallium | | NA | | 10.8 | J | | NA | | NA | 4.7 | -- |
| Zinc | | NA | 20.0 | -- | | | NA | | NA | 5.8 | -- |
| Hexavalent Chromium | | NA | | NA | | | NA | | NA | | NA |

**NOTES:**
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | MBLANK | | FB1130 | | Mblank | | FB1203 | | Mblank |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 171789 | | 172273 | | 172274 | | 172945 | | 172953 |
| SAMPLE COLLECTION DATE | | 11/29/1999 | | 11/30/1999 | | 11/30/1999 | | 12/03/1999 | | 12/03/1999 |
| MATRIX | | SOIL | | WATER | | SOIL | | WATER | | SOIL |
| UNITS | | ug/kg | | ug/l | | ug/kg | | ug/l | | ug/kg |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | | |
| **ORGANIC COMPOUNDS** | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | | NA | 1000 | -- | | NA | 1000 | -- | | NA |
| **Volatile Organic Compounds** | | | | | | | | | | |
| Acetone | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Benzene | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| Bromodichloromethane | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| Bromoform | 500 | -- | | NA | 500 | -- | | NA | 500 | -- |
| Bromomethane | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| 2-Butanone | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Carbon Disulfide | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Carbon Tetrachloride | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| Chlorobenzene | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Chloroethane | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| Chloroform | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Chloromethane | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| Dibromochloromethane | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,1-Dichloroethane | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,2-Dichloroethane | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| 1,1-Dichloroethene | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| Cis-1,2-Dichloroethene | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Trans-1,2-Dichloroethene | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,2-Dichloropropane | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| 1,3-Dichloropropene (Total) | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Ethylbenzene | 500 | -- | | NA | 500 | -- | | NA | 500 | -- |
| 2-Hexanone | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 4-Methyl-2-Pentanone | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Methylene Chloride | 380 | -- | | NA | 380 | -- | | NA | 380 | -- |
| Styrene | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,1,2,2-Tetrachloroethane | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| Tetrachloroethene | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| Toluene | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,1,1-Trichloroethane | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| 1,1,2-Trichloroethane | 380 | -- | | NA | 380 | -- | | NA | 380 | -- |
| Trichloroethylene | 120 | -- | | NA | 120 | -- | | NA | 120 | -- |
| Vinyl Chloride | 250 | -- | | NA | 250 | -- | | NA | 250 | -- |
| Xylenes (Total) | 620 | -- | | NA | 620 | -- | | NA | 620 | -- |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | | -- | | NA | | 1400 | | NA | | 1500 |
| **Total Volatile Organic Compounds** | | -- | | NA | | 1400 | | NA | | 1500 |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | 3.7 | -- | | NA | 3.7 | -- | | NA |
| 4-Nitrophenol | | NA | 2.8 | -- | | NA | 2.8 | -- | | NA |
| Dibenzofuran | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Diethylphthalate | | NA | | 0.7 | | NA | | 1.4 | | NA |
| 4-Chlorophenyl-Phenyl Ether | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Fluorene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| 4-Nitroaniline | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| 4,6-Dinitro-2-Methylphenol | | NA | 5 | -- | | NA | 5 | -- | | NA |
| N-Nitrosodiphenylamine | | NA | 0.4 | -- | | NA | 0.4 | -- | | NA |
| 4-Bromophenyl-Phenylether | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| Hexachlorobenzene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Pentachlorophenol | | NA | 2 | -- | | NA | 2 | -- | | NA |
| Phenanthrene | | NA | 0.5 | -- | | NA | 0.5 | -- | | NA |
| Anthracene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Carbazole | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Di-n-Butylphthalate | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Fluoranthene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Pyrene | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| Butylbenzylphthalate | | NA | 0.5 | -- | | NA | 0.5 | -- | | NA |
| 3,3'-Dichlorobenzidine | | NA | 3.5 | -- | | NA | 3.5 | -- | | NA |
| Benzo(a)Anthracene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Chrysene | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| Bis(2-Ethylhexyl)Phthalate | | NA | 4.1 | -- | | NA | 4.1 | -- | | NA |
| Di-n-Octylphthalate | | NA | 0.4 | -- | | NA | 0.4 | -- | | NA |
| Benzo(b)Fluoranthene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Benzo(k)Fluoranthene | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| Benzo(a)Pyrene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Indeno(1,2,3-cd)Pyrene | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Dibenzo(a,h)Anthracene | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | MBLANK | | FB1130 | | Mblank | | FB1203 | | Mblank |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 171789 | | 172273 | | 172274 | | 172945 | | 172953 |
| SAMPLE COLLECTION DATE | | 11/29/1999 | | 11/30/1999 | | 11/30/1999 | | 12/03/1999 | | 12/03/1999 |
| MATRIX | | SOIL | | WATER | | SOIL | | WATER | | SOIL |
| UNITS | | ug/kg | | ug/l | | ug/kg | | ug/l | | ug/kg |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | | |
| Benzo(g,h,i)Perylene | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Phenol | | NA | 2.0 | -- | | NA | 2.0 | -- | | NA |
| Bis(2-Chloroethyl)Ether | | NA | 0.7 | -- | | NA | 0.7 | -- | | NA |
| 2-Chlorophenol | | NA | 3.5 | -- | | NA | 3.5 | -- | | NA |
| 1,3-Dichlorobenzene | | NA | 1.4 | -- | | NA | 1.4 | -- | | NA |
| 1,4-Dichlorobenzene | | NA | 1.5 | -- | | NA | 1.5 | -- | | NA |
| Benzyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | | NA | 1.2 | -- | | NA | 1.2 | -- | | NA |
| 2-Methylphenol | | NA | 3.9 | -- | | NA | 3.9 | -- | | NA |
| 2,2-Oxybis(1-Chloropropane) | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| 4-Methylphenol | | NA | 3.8 | -- | | NA | 3.8 | -- | | NA |
| N-Nitrosodi-n-Propylamine | | NA | 1.2 | -- | | NA | 1.2 | -- | | NA |
| Hexachloroethane | | NA | 2.2 | -- | | NA | 2.2 | -- | | NA |
| Nitrobenzene | | NA | 0.5 | -- | | NA | 0.5 | -- | | NA |
| Isophorone | | NA | 0.5 | -- | | NA | 0.5 | -- | | NA |
| 2-Nitrophenol | | NA | 3.9 | -- | | NA | 3.9 | -- | | NA |
| 2,4-Dimethylphenol | | NA | 3.3 | -- | | NA | 3.3 | -- | | NA |
| Benzoic Acid | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| 2,4-Dichlorophenol | | NA | 3.2 | -- | | NA | 3.2 | -- | | NA |
| 1,2,4-Trichlorobenzene | | NA | 1.1 | -- | | NA | 1.1 | -- | | NA |
| Naphthalene | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| 4-Chloroaniline | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Hexachlorobutadiene | | NA | 1.8 | -- | | NA | 1.8 | -- | | NA |
| 4-Chloro-3-Methylphenol | | NA | 3.8 | -- | | NA | 3.8 | -- | | NA |
| 2-Methylnaphthalene | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| Hexachlorocyclopentadiene | | NA | 1.2 | -- | | NA | 1.2 | -- | | NA |
| 2,4,6-Trichlorophenol | | NA | 3.6 | -- | | NA | 3.6 | -- | | NA |
| 2,4,5-Trichlorophenol | | NA | 3.8 | -- | | NA | 3.8 | -- | | NA |
| 2-Chloronaphthalene | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| 2-Nitroaniline | | NA | 0.6 | -- | | NA | 0.6 | -- | | NA |
| Dimethylphthalate | | NA | 0.5 | -- | | NA | 0.5 | -- | | NA |
| Acenaphthylene | | NA | 0.9 | -- | | NA | 0.9 | -- | | NA |
| 3-Nitroaniline | | NA | 1.8 | -- | | NA | 1.8 | -- | | NA |
| Acenaphthene | | NA | 0.8 | -- | | NA | 0.8 | -- | | NA |
| **Total Non-Target SVOCs** | | NA | | -- | | NA | | -- | | NA |
| **Total Semi-Volatile Organic Compounds** | | NA | | 0.7 | | NA | | 1.4 | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | | NA | 0.20 | -- | | NA | 0.20 | -- | | NA |
| Aroclor-1221 | | NA | 0.30 | -- | | NA | 0.30 | -- | | NA |
| Aroclor-1232 | | NA | 0.40 | -- | | NA | 0.40 | -- | | NA |
| Aroclor-1242 | | NA | 0.30 | -- | | NA | 0.30 | -- | | NA |
| Aroclor-1248 | | NA | 0.30 | -- | | NA | 0.30 | -- | | NA |
| Aroclor-1254 | | NA | 0.40 | -- | | NA | 0.40 | -- | | NA |
| Aroclor-1260 | | NA | 0.20 | -- | | NA | 0.20 | -- | | NA |
| Aroclor-1262 | | NA | 0.20 | -- | | NA | 0.20 | -- | | NA |
| Aroclor-1268 | | NA | 0.20 | -- | | NA | 0.20 | -- | | NA |
| **Total PCBs** | | NA | | -- | | NA | | -- | | NA |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | 0.7 | | 1400 | | 1.4 | | 1500 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | | NA | | NA | | NA | 5.8 | -- | | NA |
| Arsenic | | NA | | NA | | NA | 3.2 | -- | | NA |
| Beryllium | | NA | | NA | | NA | 0.30 | -- | | NA |
| Cadmium | | NA | | NA | | NA | 0.40 | -- | | NA |
| Total Chromium | | NA | | NA | | NA | 1.6 | -- | | NA |
| Copper | | NA | | NA | | NA | | 4.9 | J | NA |
| Iron | | NA | | NA | | NA | | NA | | NA |
| Lead | | NA | | NA | | NA | 2.3 | -- | | NA |
| Mercury | | NA | | NA | | NA | 0.10 | -- | | NA |
| Nickel | | NA | | NA | | NA | | 3.6 | | NA |
| Selenium | | NA | | NA | | NA | 4.2 | -- | | NA |
| Silver | | NA | | NA | | NA | 1.4 | -- | | NA |
| Thallium | | NA | | NA | | NA | 4.7 | -- | | NA |
| Zinc | | NA | | NA | | NA | | 33.3 | | NA |
| Hexavalent Chromium | | NA | | NA | | NA | | NA | | NA |

**NOTES:**

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1208 | | Mblank | | FB1209 | | Mblank | | FB121399 |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 173458 | | 173459 | | 174356 | | 174359 | | 174831 |
| SAMPLE COLLECTION DATE | | 12/08/1999 | | 12/08/1999 | | 12/09/1999 | | 12/09/1999 | | 12/13/1999 |
| MATRIX | | WATER | | SOIL | | WATER | | SOIL | | WATER |
| UNITS | MDL | ug/l Q | MDL | ug/kg Q | MDL | ug/l Q | MDL | ug/kg Q | MDL | ug/l Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | 1000 | -- | | NA | 1000 | -- | | NA | 1000 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | |
| Acetone | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Benzene | | NA | 120 | -- | | NA | 120 | -- | | NA |
| Bromodichloromethane | | NA | 120 | -- | | NA | 120 | -- | | NA |
| Bromoform | | NA | 500 | -- | | NA | 500 | -- | | NA |
| Bromomethane | | NA | 250 | -- | | NA | 250 | -- | | NA |
| 2-Butanone | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Carbon Disulfide | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Carbon Tetrachloride | | NA | 250 | -- | | NA | 250 | -- | | NA |
| Chlorobenzene | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Chloroethane | | NA | 250 | -- | | NA | 250 | -- | | NA |
| Chloroform | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Chloromethane | | NA | 250 | -- | | NA | 250 | -- | | NA |
| Dibromochloromethane | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,1-Dichloroethane | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,2-Dichloroethane | | NA | 250 | -- | | NA | 250 | -- | | NA |
| 1,1-Dichloroethene | | NA | 250 | -- | | NA | 250 | -- | | NA |
| Cis-1,2-Dichloroethene | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Trans-1,2-Dichloroethene | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,2-Dichloropropane | | NA | 120 | -- | | NA | 120 | -- | | NA |
| 1,3-Dichloropropene (Total) | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Ethylbenzene | | NA | 500 | -- | | NA | 500 | -- | | NA |
| 2-Hexanone | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 4-Methyl-2-Pentanone | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Methylene Chloride | | NA | 380 | -- | | NA | 380 | -- | | NA |
| Styrene | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,1,2,2-Tetrachloroethane | | NA | 120 | -- | | NA | 120 | -- | | NA |
| Tetrachloroethene | | NA | 120 | -- | | NA | 120 | -- | | NA |
| Toluene | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,1,1-Trichloroethane | | NA | 620 | -- | | NA | 620 | -- | | NA |
| 1,1,2-Trichloroethane | | NA | 380 | -- | | NA | 380 | -- | | NA |
| Trichloroethylene | | NA | 120 | -- | | NA | 120 | -- | | NA |
| Vinyl Chloride | | NA | 250 | -- | | NA | 250 | -- | | NA |
| Xylenes (Total) | | NA | 620 | -- | | NA | 620 | -- | | NA |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | NA | | NA |
| **Total Non-Target VOCs** | | NA | | -- | | NA | | -- | | NA |
| **Total Volatile Organic Compounds** | | NA | | -- | | NA | | -- | | NA |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | |
| 2,4-Dinitrophenol | 3.7 | -- | | NA | 3.7 | -- | | NA | | NA |
| 4-Nitrophenol | 2.8 | -- | | NA | 2.8 | -- | | NA | | NA |
| Dibenzofuran | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| Dinitrotoluene (2,4-/2,6-mixture) | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Diethylphthalate | 0.5 | -- | | NA | | 0.6 | | NA | 0.5 | -- |
| 4-Chlorophenyl-Phenyl Ether | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Fluorene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| 4-Nitroaniline | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| 4,6-Dinitro-2-Methylphenol | 5 | -- | | NA | 5.0 | -- | | NA | | NA |
| N-Nitrosodiphenylamine | 0.4 | -- | | NA | 0.4 | -- | | NA | 0.4 | -- |
| 4-Bromophenyl-Phenylether | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| Hexachlorobenzene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Pentachlorophenol | 2 | -- | | NA | 2.0 | -- | | NA | | NA |
| Phenanthrene | 0.5 | -- | | NA | 0.5 | -- | | NA | 0.5 | -- |
| Anthracene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Carbazole | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Di-n-Butylphthalate | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Fluoranthene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Pyrene | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| Butylbenzylphthalate | 0.5 | -- | | NA | 0.5 | -- | | NA | 0.5 | -- |
| 3,3'-Dichlorobenzidine | 3.5 | -- | | NA | 3.5 | -- | | NA | 3.5 | -- |
| Benzo(a)Anthracene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Chrysene | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| Bis(2-Ethylhexyl)Phthalate | 4.1 | -- | | NA | 4.1 | -- | | NA | 4.1 | -- |
| Di-n-Octylphthalate | 0.4 | -- | | NA | 0.4 | -- | | NA | 0.4 | -- |
| Benzo(b)Fluoranthene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Benzo(k)Fluoranthene | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| Benzo(a)Pyrene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Indeno(1,2,3-cd)Pyrene | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Dibenzo(a,h)Anthracene | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |

**TABLE 8**
**ANALYTICAL RESULTS/QA/QC - SOIL**
**OYSTER CREEK NUCLEAR GENERATING STATION**

| URSGWC SAMPLE NO. | | FB1208 | | Mblank | | FB1209 | | Mblank | | FB121399 |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 173458 | | 173459 | | 174356 | | 174359 | | 174831 |
| SAMPLE COLLECTION DATE | | 12/08/1999 | | 12/08/1999 | | 12/09/1999 | | 12/09/1999 | | 12/13/1999 |
| MATRIX | | WATER | | SOIL | | WATER | | SOIL | | WATER |
| UNITS | MDL | ug/l Q | MDL | ug/kg Q | MDL | ug/l Q | MDL | ug/kg Q | MDL | ug/l Q |
| Benzo(g,h,i)Perylene | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Phenol | 2.0 | -- | | NA | 2.0 | -- | | NA | | NA |
| Bis(2-Chloroethyl)Ether | 0.7 | -- | | NA | 0.7 | -- | | NA | 0.7 | -- |
| 2-Chlorophenol | 3.5 | -- | | NA | 3.5 | -- | | NA | | NA |
| 1,3-Dichlorobenzene | 1.4 | -- | | NA | 1.4 | -- | | NA | 1.4 | -- |
| 1,4-Dichlorobenzene | 1.5 | -- | | NA | 1.5 | -- | | NA | 1.5 | -- |
| Benzyl Alcohol | | NA | | NA | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | 1.2 | -- | | NA | 1.2 | -- | | NA | 1.2 | -- |
| 2-Methylphenol | 3.9 | -- | | NA | 3.9 | -- | | NA | | NA |
| 2,2-Oxybis(1-Chloropropane) | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | NA |
| 4-Methylphenol | 3.8 | -- | | NA | 3.8 | -- | | NA | | NA |
| N-Nitrosodi-n-Propylamine | 1.2 | -- | | NA | 1.2 | -- | | NA | 1.2 | -- |
| Hexachloroethane | 2.2 | -- | | NA | 2.2 | -- | | NA | 2.2 | -- |
| Nitrobenzene | 0.5 | -- | | NA | 0.5 | -- | | NA | 0.5 | -- |
| Isophorone | 0.5 | -- | | NA | 0.5 | -- | | NA | 0.5 | -- |
| 2-Nitrophenol | 3.9 | -- | | NA | 3.9 | -- | | NA | | NA |
| 2,4-Dimethylphenol | 3.3 | -- | | NA | 3.3 | -- | | NA | | NA |
| Benzoic Acid | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| 2,4-Dichlorophenol | 3.2 | -- | | NA | 3.2 | -- | | NA | | NA |
| 1,2,4-Trichlorobenzene | 1.1 | -- | | NA | 1.1 | -- | | NA | 1.1 | -- |
| Naphthalene | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| 4-Chloroaniline | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Hexachlorobutadiene | 1.8 | -- | | NA | 1.8 | -- | | NA | 1.8 | -- |
| 4-Chloro-3-Methylphenol | 3.8 | -- | | NA | 3.8 | -- | | NA | | NA |
| 2-Methylnaphthalene | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| Hexachlorocyclopentadiene | 1.2 | -- | | NA | 1.2 | -- | | NA | 1.2 | -- |
| 2,4,6-Trichlorophenol | 3.6 | -- | | NA | 3.6 | -- | | NA | | NA |
| 2,4,5-Trichlorophenol | 3.8 | -- | | NA | 3.8 | -- | | NA | | NA |
| 2-Chloronaphthalene | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| 2-Nitroaniline | 0.6 | -- | | NA | 0.6 | -- | | NA | 0.6 | -- |
| Dimethylphthalate | 0.5 | -- | | NA | 0.5 | -- | | NA | 0.5 | -- |
| Acenaphthylene | 0.9 | -- | | NA | 0.9 | -- | | NA | 0.9 | -- |
| 3-Nitroaniline | 1.8 | -- | | NA | 1.8 | -- | | NA | 1.8 | -- |
| Acenaphthene | 0.8 | -- | | NA | 0.8 | -- | | NA | 0.8 | -- |
| **Total Non-Target SVOCs** | | -- | | NA | | -- | | NA | | -- |
| **Total Semi-Volatile Organic Compounds** | | -- | | NA | | 0.6 | | NA | | -- |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | 0.20 | -- | | NA | 0.20 | -- | | NA | 0.20 | -- |
| Aroclor-1221 | 0.30 | -- | | NA | 0.30 | -- | | NA | 0.30 | -- |
| Aroclor-1232 | 0.40 | -- | | NA | 0.40 | -- | | NA | 0.40 | -- |
| Aroclor-1242 | 0.30 | -- | | NA | 0.30 | -- | | NA | 0.30 | -- |
| Aroclor-1248 | 0.30 | -- | | NA | 0.30 | -- | | NA | 0.30 | -- |
| Aroclor-1254 | 0.40 | -- | | NA | 0.40 | -- | | NA | 0.40 | -- |
| Aroclor-1260 | 0.20 | -- | | NA | 0.20 | -- | | NA | 0.20 | -- |
| Aroclor-1262 | 0.20 | -- | | NA | 0.20 | -- | | NA | 0.20 | -- |
| Aroclor-1268 | 0.20 | -- | | NA | 0.20 | -- | | NA | 0.20 | -- |
| **Total PCBs** | | -- | | NA | | -- | | NA | | -- |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | -- | | 0.6 | | -- | | -- |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | | NA | | NA | | NA | | NA | 5.8 | -- |
| Arsenic | | NA | | NA | | NA | | NA | 3.2 | -- |
| Beryllium | | NA | | NA | | NA | | NA | 0.30 | -- |
| Cadmium | | NA | | NA | | NA | | NA | 0.40 | -- |
| Total Chromium | | NA | | NA | | NA | | NA | 1.6 | -- |
| Copper | | NA | | NA | | NA | | NA | 3.7 | -- |
| Iron | | NA | | NA | | NA | | NA | | NA |
| Lead | | NA | | NA | | NA | | NA | 2.3 | -- |
| Mercury | | NA | | NA | | NA | | NA | 0.10 | -- |
| Nickel | | NA | | NA | | NA | | NA | 1.6 | -- |
| Selenium | | NA | | NA | | NA | | NA | 4.2 | -- |
| Silver | | NA | | NA | | NA | | NA | 1.4 | -- |
| Thallium | | NA | | NA | | NA | | NA | 4.7 | -- |
| Zinc | | NA | | NA | | NA | | NA | 5.8 | -- |
| Hexavalent Chromium | | NA | | NA | | NA | | NA | | NA |

**NOTES:**

MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | TB121399 | | FB0103 | | TB0103 | | TB1500 | | MEOHBLANK | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 174932 | | 00057-002 | | 00057-007 | | 00061-019 | | 00061-022 | |
| SAMPLE COLLECTION DATE | | 12/13/1999 | | 01/03/2000 | | 01/03/2000 | | 01/05/2000 | | 01/05/2000 | |
| MATRIX | | SOIL | | WATER | | SOIL | | WATER | | SOIL | |
| UNITS | MDL | ug/kg | Q MDL | ug/l | Q MDL | ug/kg | Q MDL | ug/l | Q MDL | ug/kg | Q |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Total Petroleum Hydrocarbons** | | NA | | NA | | NA | | NA | | NA | |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | 620 | -- | | NA | 1200 | -- | | 6.0 | | 720 | J |
| Benzene | 120 | -- | | NA | 620 | -- | 0.26 | -- | 620 | -- | |
| Bromodichloromethane | 120 | -- | | NA | 620 | -- | 0.23 | -- | 620 | -- | |
| Bromoform | 500 | -- | | NA | 620 | -- | 0.5 | -- | 620 | -- | |
| Bromomethane | 250 | -- | | NA | 1200 | -- | 0.47 | -- | 1200 | -- | |
| 2-Butanone | 620 | -- | | NA | 1200 | -- | 0.91 | -- | 1200 | -- | |
| Carbon Disulfide | 620 | -- | | NA | 620 | -- | 0.56 | -- | 600 | -- | |
| Carbon Tetrachloride | 250 | -- | | NA | 620 | -- | 0.80 | -- | 600 | -- | |
| Chlorobenzene | 620 | -- | | NA | 620 | -- | 0.58 | -- | 600 | -- | |
| Chloroethane | 250 | -- | | NA | 620 | -- | 0.81 | -- | 600 | -- | |
| Chloroform | 620 | -- | | NA | 1200 | -- | 0.59 | -- | 1200 | -- | |
| Chloromethane | 250 | -- | | NA | 620 | -- | 0.23 | -- | 600 | -- | |
| Dibromochloromethane | 620 | -- | | NA | 1200 | -- | 3.7 | -- | 1200 | -- | |
| 1,1-Dichloroethane | 620 | -- | | NA | 620 | -- | 2.3 | -- | 600 | -- | |
| 1,2-Dichloroethane | 250 | -- | | NA | 620 | -- | 0.21 | -- | 600 | -- | |
| 1,1-Dichloroethene | 250 | -- | | NA | 620 | -- | 0.71 | -- | 600 | -- | |
| Cis-1,2-Dichloroethene | 620 | -- | | NA | 620 | -- | 0.52 | -- | 600 | -- | |
| Trans-1,2-Dichloroethene | 620 | -- | | NA | 620 | -- | 0.37 | -- | 600 | -- | |
| 1,2-Dichloropropane | 120 | -- | | NA | 620 | -- | 0.32 | -- | 600 | -- | |
| 1,3-Dichloropropene (Total) | 620 | -- | | NA | 620 | -- | 0.19 | -- | 600 | -- | |
| Ethylbenzene | 500 | -- | | NA | 620 | -- | 0.43 | -- | 600 | -- | |
| 2-Hexanone | 620 | -- | | NA | 1200 | -- | 0.51 | -- | 1200 | -- | |
| 4-Methyl-2-Pentanone | 620 | -- | | NA | 1200 | -- | 0.37 | -- | 1200 | -- | |
| Methylene Chloride | 380 | -- | | NA | 620 | -- | | 1.6 | 600 | -- | |
| Styrene | 620 | -- | | NA | 620 | -- | 0.13 | -- | 600 | -- | |
| 1,1,2,2-Tetrachloroethane | 120 | -- | | NA | 620 | -- | 0.46 | -- | 600 | -- | |
| Tetrachloroethene | 120 | -- | | NA | 620 | -- | 0.62 | -- | 600 | -- | |
| Toluene | 620 | -- | | NA | 620 | -- | 1.6 | -- | 600 | -- | |
| 1,1,1-Trichloroethane | 620 | -- | | NA | 620 | -- | 0.5 | -- | 600 | -- | |
| 1,1,2-Trichloroethane | 380 | -- | | NA | 620 | -- | 0.35 | -- | 600 | -- | |
| Trichloroethylene | 120 | -- | | NA | 620 | -- | 0.44 | -- | 600 | -- | |
| Vinyl Chloride | 250 | -- | | NA | 1200 | -- | 0.71 | -- | 1200 | -- | |
| Xylenes (Total) | 620 | -- | | NA | 620 | -- | 1.5 | -- | 600 | -- | |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | 1.0 | -- | 6000 | -- | |
| Methyl T-Butyl Ether | | NA | | NA | | NA | 0.48 | -- | 600 | -- | |
| **Total Non-Target VOCs** | | -- | | NA | | -- | | -- | | -- | |
| **Total Volatile Organic Compounds** | | -- | | NA | | -- | | 7.6 | | 720 | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | 50 | -- | | NA | | NA | | NA | |
| 4-Nitrophenol | | NA | 50 | -- | | NA | | NA | | NA | |
| Dibenzofuran | | NA | 10 | -- | | NA | | NA | | NA | |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | 10 | -- | | NA | | NA | | NA | |
| Diethylphthalate | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Chlorophenyl-Phenyl Ether | | NA | 10 | -- | | NA | | NA | | NA | |
| Fluorene | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Nitroaniline | | NA | 50 | -- | | NA | | NA | | NA | |
| 4,6-Dinitro-2-Methylphenol | | NA | 50 | -- | | NA | | NA | | NA | |
| N-Nitrosodiphenylamine | | NA | 10 | -- | | NA | | NA | | NA | |
| 4-Bromophenyl-Phenylether | | NA | 10 | -- | | NA | | NA | | NA | |
| Hexachlorobenzene | | NA | 10 | -- | | NA | | NA | | NA | |
| Pentachlorophenol | | NA | 50 | -- | | NA | | NA | | NA | |
| Phenanthrene | | NA | 10 | -- | | NA | | NA | | NA | |
| Anthracene | | NA | 10 | -- | | NA | | NA | | NA | |
| Carbazole | | NA | 10 | -- | | NA | | NA | | NA | |
| Di-n-Butylphthalate | | NA | 10 | -- | | NA | | NA | | NA | |
| Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA | |
| Pyrene | | NA | 10 | -- | | NA | | NA | | NA | |
| Butylbenzylphthalate | | NA | 10 | -- | | NA | | NA | | NA | |
| 3,3-Dichlorobenzidine | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzo(a)Anthracene | | NA | 10 | -- | | NA | | NA | | NA | |
| Chrysene | | NA | 10 | -- | | NA | | NA | | NA | |
| Bis(2-Ethylhexyl)Phthalate | | NA | | 2 | J | NA | | NA | | NA | |
| Di-n-Octylphthalate | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzo(b)Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzo(k)Fluoranthene | | NA | 10 | -- | | NA | | NA | | NA | |
| Benzo(a)Pyrene | | NA | 10 | -- | | NA | | NA | | NA | |
| Indeno(1,2,3-cd)Pyrene | | NA | 10 | -- | | NA | | NA | | NA | |
| Dibenzo(a,h)Anthracene | | NA | 10 | -- | | NA | | NA | | NA | |

TABLE 8
ANALYTICAL RESULTS/QA/QC - SOIL
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | TB121399 | | FB0103 | | TB0103 | | TB1500 | | MEOHBLANK |
|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 174932 | | 00057-002 | | 00057-007 | | 00061-019 | | 00061-022 |
| SAMPLE COLLECTION DATE | | 12/13/1999 | | 01/03/2000 | | 01/03/2000 | | 01/05/2000 | | 01/05/2000 |
| MATRIX | | SOIL | | WATER | | SOIl | | WATER | | SOIL |
| UNITS | MDL | ug/kg | MDL | ug/l | MDL | ug/kg | MDL | ug/l | MDL | ug/kg |
| Benzo(g,h,i)Perylene | | NA | 10 | -- | | NA | | NA | | NA |
| Phenol | | NA | 10 | -- | | NA | | NA | | NA |
| Bis(2-Chloroethyl)Ether | | NA | 10 | -- | | NA | | NA | | NA |
| 2-Chlorophenol | | NA | 10 | -- | | NA | | NA | | NA |
| 1,3-Dichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA |
| 1,4-Dichlorobenzene | | NA | | NA | | NA | | NA | | NA |
| Benzyl Alcohol | | NA | 10 | -- | | NA | | NA | | NA |
| 1,2-Dichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA |
| 2-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA |
| 2,2-Oxybis(1-Chloropropane) | | NA | 10 | -- | | NA | | NA | | NA |
| 4-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA |
| N-Nitrosodi-n-Propylamine | | NA | 10 | -- | | NA | | NA | | NA |
| Hexachloroethane | | NA | 10 | -- | | NA | | NA | | NA |
| Nitrobenzene | | NA | 10 | -- | | NA | | NA | | NA |
| Isophorone | | NA | 10 | -- | | NA | | NA | | NA |
| 2-Nitrophenol | | NA | 10 | -- | | NA | | NA | | NA |
| 2,4-Dimethylphenol | | NA | 10 | -- | | NA | | NA | | NA |
| Benzoic Acid | | NA | | NA | | NA | | NA | | NA |
| Bis(2-Chloroethoxy) Methane | | NA | 10 | -- | | NA | | NA | | NA |
| 2,4-Dichlorophenol | | NA | 10 | -- | | NA | | NA | | NA |
| 1,2,4-Trichlorobenzene | | NA | 10 | -- | | NA | | NA | | NA |
| Naphthalene | | NA | 10 | -- | | NA | | NA | | NA |
| 4-Chloroaniline | | NA | 10 | -- | | NA | | NA | | NA |
| Hexachlorobutadiene | | NA | 10 | -- | | NA | | NA | | NA |
| 4-Chloro-3-Methylphenol | | NA | 10 | -- | | NA | | NA | | NA |
| 2-Methylnaphthalene | | NA | 10 | -- | | NA | | NA | | NA |
| Hexachlorocyclopentadiene | | NA | 10 | -- | | NA | | NA | | NA |
| 2,4,6-Trichlorophenol | | NA | 10 | -- | | NA | | NA | | NA |
| 2,4,5-Trichlorophenol | | NA | 50 | -- | | NA | | NA | | NA |
| 2-Chloronaphthalene | | NA | 10 | -- | | NA | | NA | | NA |
| 2-Nitroaniline | | NA | 50 | -- | | NA | | NA | | NA |
| Dimethylphthalate | | NA | 10 | -- | | NA | | NA | | NA |
| Acenaphthylene | | NA | 10 | -- | | NA | | NA | | NA |
| 3-Nitroaniline | | NA | 50 | -- | | NA | | NA | | NA |
| Acenaphthene | | NA | 10 | -- | | NA | | NA | | NA |
| **Total Non-Target SVOCs** | | NA | | -- | | NA | | NA | | NA |
| **Total Semi-Volatile Organic Compounds** | | NA | | 2 | | NA | | NA | | NA |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | |
| Aroclor-1016 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1221 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1232 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1242 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1248 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1254 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1260 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1262 | | NA | | NA | | NA | | NA | | NA |
| Aroclor-1268 | | NA | | NA | | NA | | NA | | NA |
| **Total PCBs** | | NA | | NA | | NA | | NA | | NA |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | 2 | | -- | | 7.6 | | 720 |
| **INORGANIC COMPOUNDS** | | | | | | | | | | |
| **Metals** | | | | | | | | | | |
| Antimony | | NA | | NA | | NA | | NA | | NA |
| Arsenic | | NA | | NA | | NA | | NA | | NA |
| Beryllium | | NA | | NA | | NA | | NA | | NA |
| Cadmium | | NA | | NA | | NA | | NA | | NA |
| Total Chromium | | NA | | NA | | NA | | NA | | NA |
| Copper | | NA | | NA | | NA | | NA | | NA |
| Iron | | NA | | NA | | NA | | NA | | NA |
| Lead | | NA | | NA | | NA | | NA | | NA |
| Mercury | | NA | | NA | | NA | | NA | | NA |
| Nickel | | NA | | NA | | NA | | NA | | NA |
| Selenium | | NA | | NA | | NA | | NA | | NA |
| Silver | | NA | | NA | | NA | | NA | | NA |
| Thallium | | NA | | NA | | NA | | NA | | NA |
| Zinc | | NA | | NA | | NA | | NA | | NA |
| Hexavalent Chromium | | NA | | NA | | NA | | NA | | NA |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
N Negated by URSGWC data validation
B Analyte detected in field, trip, or method
NA Not analyzed

**TABLE 10**
**SUMMARY OF PROPOSALS FROM SI/RI**

| AOC-ID | DESCRIPTION | NFA | Soil addressed in RAW | GW Addressed in RAW |
|---|---|---|---|---|
| 1A/4A | Main Oil Storage Tank (AST) | X | | |
| 1D | Emergency Diesel Generator Waste Oil Tank (AST) | X | | |
| 1E | Turbine Dirty Oil Tank (AST) | X | | |
| 1F | Turbine Lube Oil Main Tank and Purification System (AST) | X | | |
| 1G | Gasoline and Diesel Fuel ASTs | | | X |
| 1I/4D | Torus Tank (AST) | X | | |
| 2A | Waste Drop Tank (UST) | X | | |
| 2D | Former Fuel Oil UST At Eastern Portion of Site (Former Farmhouse) | X | | |
| 4A | Fuel Oil Tank Unloading Area (addressed with AOC-1A) | X | | |
| 4D | Torus Tank Unloading Area (addressed with AOC-1I) | X | | |
| 5A | Underground Piping from Main Oil Storage Tank to Emergency Diesel Generator Oil Storage Tank Via Auxiliary Boiler House | Addressed as AOC-17G | | |
| 5B | Underground Piping from Turbine Lube Oil Main Tank to Turbine Dirty Oil Tank | X | | |
| 5C | Underground Piping from Torus Tank to Reactor Building | X | | |
| 5G | Fuel Oil Pumping Station | X | | |
| 5H | Emergency Diesel Generator Oil Storage Tank Room Sump | X | | |
| 6A | Hazardous and Non-Hazardous Waste Storage Area | X | | |
| 6B | Former Storage Area South of Existing Storage Area | X | | |
| 6C | Former Storage Area Southwest of Level D Storage Area | X | | |
| 7B | Scrap Metal Dumpster | Addressed as AOC-15M | | |
| 8A | Chemical Storage Cabinet at Intake Canal | Addressed as AOC-15M | | |
| 8B | Chemical Storage Cabinet West of New RadWaste Building | X | | |
| 11A | Trench Located Adjacent to Wooded Area, North of Main Gate Entrance | X | | |
| 14A | Former On-Site Wastewater Treatment Facility | | X | |
| 14B | Septic System - Former Farmhouse | X | | |
| 14C | Seepage Pit | | X | |
| 15A | Transformer - Northwest Corner of Low Level RadWaste Storage Facility | X | | |
| 15B | Transformer - South Side of Low Level RadWaste Facility | X | | |
| 15C | Transformer - Southwest Corner of Material Warehouse | X | | |
| 15D | Transformer - South Side of Level D Storage Area | X | | |
| 15E | Transformer - Southwest Corner of New RadWaste Building | X | | |
| 15F | Transformer - Northeast of Reactor Building | X | | |
| 15G | Transformer - Southwest Corner of Administration Building | X | | |
| 15H | Transformer - Southeast Corner of Site Emergency Building | X | | |
| 15I | Transformer - East End of Plant Engineering Building (Aux. Office Bldg) | X | | |
| 15J | Transformer - West Side of Pre-Treatment Building | X | | |
| 15K | Transformer - West Side of Turbine Building | | X | Addressed as AOC-16C |
| 15L | Transformer - West Side of Turbine Building, South of Chlorination Facility | X | | |
| 15M | Transformer - Southeast Corner of Intake Structure | | X | |
| 15N | Transformer - Northeast Corner of Fire Water Storage Tank | X | | |
| 15O | Transformer - Southwest Corner of Trailer 300 Complex | X | | |
| 15P | Transformer - East End of Breathing Air Compressor Building | X | | |
| 15Q | Transformer - West of Low Level RadWaste Storage Facility | X | | |
| 16A | Hazardous Waste Collection Station | X | | |
| 16B | Former Hazardous Waste Collection Shed | X | | |

**TABLE 10**
**SUMMARY OF PROPOSALS FROM SI/RI**

| AOC-ID | DESCRIPTION | NFA | Soil addressed in RAW | GW Addressed in RAW |
|---|---|---|---|---|
| 16C | Former Drum Storage Area at Storage Building | | | X |
| 16D | Historical Storage of Chromate Solution near New RadWaste Building | X | | |
| 16E | Historical Storage of Chromate Solution near Drywell Processing Center | X | | |
| 16F | Historical Storage of Chromate Solution near Old RadWaste Building | X | | |
| 17C | Area of Discharge/Spill - 10-30-80 (NJDEP Case No. 80-10-31-6) | X | | |
| 17G | Area of Discharge/Spill - 10-24-86 (NJDEP Case Nos. 86-10-24-IOC/93-06-28-1317-29) | | X | X |
| 17H | Area of Discharge/Spill - 08-16-87 | X | | |
| 17M | Area of Discharge/Spill - 6-25-89 | Addressed as AOC-15K | | |
| 17N | Area of Discharge/Spill - 7-11-89 | Addressed as AOC-15K | | |
| 18B | Former Laydown Area at Northeast Portion of OCNGS | | X | |
| 19A | Joy Air Compressor | X | | |
| 19B | Former Mobile Compressor | X | | |
| 19D | Skid-Mounted Air Compressor | X | | |
| 21A | South Well | X | | |
| 21B | North Well | X | | |
| 24 | Upland Confined Disposal Facility | X | | |

TABLE 9
ANALYTICAL RESULTS/QA/QC - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1222 | | TB1222 |
|---|---|---|---|---|
| LAB ID | | 94920-010 | | 94920-011 |
| SAMPLE COLLECTION DATE | | 12/22/1999 | | 12/22/1999 |
| MATRIX | | WATER | | WATER |
| UNITS | | ug/l | | ug/l |
| | MDL | Q | MDL | Q |
| **ORGANIC COMPOUNDS** | | | | |
| **Volatile Organic Compounds** | | | | |
| Acetone | 1.6 | -- | 1.6 | -- |
| Benzene | 0.26 | -- | 0.26 | -- |
| Bromodichloromethane | 0.23 | -- | 0.23 | -- |
| Bromoform | 0.5 | -- | 0.5 | -- |
| Bromomethane | 0.47 | -- | 0.47 | -- |
| 2-Butanone | 0.91 | -- | 0.91 | -- |
| Carbon Disulfide | 0.56 | -- | 0.56 | -- |
| Carbon Tetrachloride | 0.80 | -- | 0.80 | -- |
| Chlorobenzene | 0.58 | -- | 0.58 | -- |
| Chloroethane | 0.81 | -- | 0.81 | -- |
| Chloroform | 0.59 | -- | 0.59 | -- |
| Chloromethane | 0.23 | -- | 0.23 | -- |
| Dibromochloromethane | 3.7 | -- | 3.7 | -- |
| 1,1-Dichloroethane | 2.3 | -- | 2.3 | -- |
| 1,2-Dichloroethane | 0.21 | -- | 0.21 | -- |
| 1,1-Dichloroethene | 0.71 | -- | 0.71 | -- |
| Cis-1,2-Dichloroethene | 0.52 | -- | 0.52 | -- |
| Trans-1,2-Dichloroethene | 0.37 | -- | 0.37 | -- |
| 1,2-Dichloropropane | 0.32 | -- | 0.32 | -- |
| 1,3-Dichloropropene (Total) | 0.19 | -- | 0.19 | -- |
| Ethylbenzene | 0.43 | -- | 0.43 | -- |
| 2-Hexanone | 0.51 | -- | 0.51 | -- |
| 4-Methyl-2-Pentanone | 0.37 | -- | 0.37 | -- |
| Methylene Chloride | 1.1 | -- | 1.1 | -- |
| Styrene | 0.13 | -- | 0.13 | -- |
| 1,1,2,2-Tetrachloroethane | 0.46 | -- | 0.46 | -- |
| Tetrachloroethene | 0.62 | -- | 0.62 | -- |
| Toluene | 1.6 | -- | 1.6 | -- |
| 1,1,1-Trichloroethane | 0.5 | -- | 0.5 | -- |
| 1,1,2-Trichloroethane | 0.35 | -- | 0.35 | -- |
| Trichloroethylene | 0.44 | -- | 0.44 | -- |
| Vinyl Chloride | 0.71 | -- | 0.71 | -- |
| Xylenes (Total) | 1.5 | -- | 1.5 | -- |
| Tertiary-Butyl Alcohol | | NA | | NA |
| Methyl T-Butyl Ether | | NA | | NA |
| **Total Non-Target VOCs** | | -- | | -- |
| **Total Volatile Organic Compounds** | | -- | | -- |
| **Semi-Volatile Organic Compounds** | | | | |
| 2,4-Dinitrophenol | 12 | -- | | NA |
| 4-Nitrophenol | 4.9 | -- | | NA |
| Dibenzofuran | 0.42 | -- | | NA |
| Dinitrotoluene (2,4-/2,6-mixture) | 0.28 | -- | | NA |
| Diethylphthalate | 0.45 | -- | | NA |
| 4-Chlorophenyl-Phenyl Ether | 0.40 | -- | | NA |
| Fluorene | 0.33 | -- | | NA |
| 4-Nitroaniline | 0.35 | -- | | NA |
| 4,6-Dinitro-2-Methylphenol | 0.45 | -- | | NA |
| N-Nitrosodiphenylamine (1) | 0.42 | -- | | NA |
| 4-Bromophenyl-Phenylether | 0.60 | -- | | NA |
| Hexachlorobenzene | 0.39 | -- | | NA |
| Pentachlorophenol | 0.48 | -- | | NA |
| Phenanthrene | 0.39 | -- | | NA |
| Anthracene | 0.41 | -- | | NA |
| Carbazole | 0.41 | -- | | NA |
| Di-n-Butylphthalate | 0.85 | -- | | NA |
| Fluoranthene | 0.34 | -- | | NA |
| Pyrene | 0.43 | -- | | NA |
| Butylbenzylphthalate | 0.54 | -- | | NA |
| 3,3'-Dichlorobenzidine | 3.6 | -- | | NA |
| Benzo(a)Anthracene | 0.40 | -- | | NA |
| Chrysene | 0.47 | -- | | NA |
| Bis(2-Ethylhexyl)Phthalate | 0.58 | -- | | NA |
| Di-n-Octylphthalate | 0.43 | -- | | NA |
| Benzo(b)Fluoranthene | 0.35 | -- | | NA |
| Benzo(k)Fluoranthene | 0.42 | -- | | NA |
| Benzo(a)Pyrene | 0.31 | -- | | NA |
| Indeno(1,2,3-cd)Pyrene | 0.32 | -- | | NA |
| Dibenzo(a,h)Anthracene | 0.47 | -- | | NA |

TABLE 9
ANALYTICAL RESULTS/QA/QC - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB1222 | | | TB1222 |
|---|---|---|---|---|---|
| LAB ID | | 94920-010 | | | 94920-011 |
| SAMPLE COLLECTION DATE | | 12/22/1999 | | | 12/22/1999 |
| MATRIX | | WATER | | | WATER |
| UNITS | | ug/l | | | ug/l |
| | MDL | | Q | MDL | Q |
| Benzo(g,h,i)Perylene | 0.35 | -- | | | NA |
| Phenol | 0.45 | -- | | | NA |
| Bis(2-Chloroethyl)Ether | 0.28 | -- | | | NA |
| 2-Chlorophenol | 0.85 | -- | | | NA |
| 1,3-Dichlorobenzene | 0.50 | -- | | | NA |
| 1,4-Dichlorobenzene | 0.59 | -- | | | NA |
| Benzyl Alcohol | | NA | | | NA |
| 1,2-Dichlorobenzene | 0.61 | -- | | | NA |
| 2-Methylphenol | 0.71 | -- | | | NA |
| 2,2-Oxybis(1-Chloropropane) | 0.68 | -- | | | NA |
| 4-Methylphenol | 0.24 | -- | | | NA |
| N-Nitrosodi-n-Propylamine | 0.39 | -- | | | NA |
| Hexachloroethane | 0.50 | -- | | | NA |
| Nitrobenzene | 0.36 | -- | | | NA |
| Isophorone | 0.30 | -- | | | NA |
| 2-Nitrophenol | 0.58 | -- | | | NA |
| 2,4-Dimethylphenol | 0.54 | -- | | | NA |
| Benzoic Acid | | NA | | | NA |
| Bis(2-Chloroethoxy) Methane | 0.39 | -- | | | NA |
| 2,4-Dichlorophenol | 0.54 | -- | | | NA |
| 1,2,4-Trichlorobenzene | 0.44 | -- | | | NA |
| Naphthalene | 0.38 | -- | | | NA |
| 4-Chloroaniline | 0.25 | -- | | | NA |
| Hexachlorobutadiene | 0.54 | -- | | | NA |
| 4-Chloro-3-Methylphenol | 0.57 | -- | | | NA |
| 2-Methylnaphthalene | 0.34 | -- | | | NA |
| Hexachlorocyclopentadiene | 1.5 | -- | | | NA |
| 2,4,6-Trichlorophenol | 0.58 | -- | | | NA |
| 2,4,5-Trichlorophenol | 0.42 | -- | | | NA |
| 2-Chloronaphthalene | 0.42 | -- | | | NA |
| 2-Nitroaniline | 0.43 | -- | | | NA |
| Dimethylphthalate | 0.43 | -- | | | NA |
| Acenaphthylene | 0.38 | -- | | | NA |
| 3-Nitroaniline | 1.4 | -- | | | NA |
| Acenaphthene | 0.48 | -- | | | NA |
| **Total Non-Target SVOCs** | | -- | | | NA |
| **Total Semi-Volatile Organic Compounds** | | -- | | | NA |
| | | | | | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | |
| Aroclor-1016 | 0.0946 | -- | | | NA |
| Aroclor-1221 | 0.0981 | -- | | | NA |
| Aroclor-1232 | 0.0531 | -- | | | NA |
| Aroclor-1242 | 0.112 | -- | | | NA |
| Aroclor-1248 | 0.0415 | -- | | | NA |
| Aroclor-1254 | 0.0638 | -- | | | NA |
| Aroclor-1260 | 0.0459 | -- | | | NA |
| Aroclor-1262 | | NA | | | NA |
| Aroclor-1268 | | NA | | | NA |
| **Total PCBs** | | -- | | | NA |
| | | | | | |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | | -- |
| | | | | | |
| **INORGANIC COMPOUNDS** | | | | | |
| **Metals** | | | | | |
| Antimony | 2.39 | -- | | | NA |
| Arsenic | 4.18 | -- | | | NA |
| Beryllium | 0.177 | -- | | | NA |
| Cadmium | 0.190 | -- | | | NA |
| Total Chromium | 0.239 | -- | | | NA |
| Copper | 0.603 | -- | | | NA |
| Lead | 0.957 | -- | | | NA |
| Mercury | 0.200 | -- | | | NA |
| Nickel | 0.443 | -- | | | NA |
| Selenium | 2.04 | -- | | | NA |
| Silver | 0.303 | -- | | | NA |
| Thallium | 2.8 | -- | | | NA |
| Zinc | | 11.7 | J | | NA |
| | | | | | |
| Hexavalent Chromium | 10 | -- | | | NA |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in field, trip, or method blank
NA Not analyzed
N Negated by URSGWC data validation

TABLE 9
ANALYTICAL RESULTS/QA/QC - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0903W4 | | FB0903W6 | | FB0903CR | | FB1221 | | TB1221 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93536012 | | 93536013 | | 93536003 | | 94896-005 | | 94896-006 | |
| SAMPLE COLLECTION DATE | | 09/03/1999 | | 09/03/1999 | | 09/03/1999 | | 12/21/1999 | | 12/21/1999 | |
| MATRIX | | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | | ug/L | | ug/L | | ug/L | | ug/l | | ug/l | |
| | MDL | Q | MDL | Q | MDL | Q | MDL | Q | MDL | Q | |
| **ORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Volatile Organic Compounds** | | | | | | | | | | | |
| Acetone | | NA | 1.6 | -- | | NA | 1.6 | -- | 1.6 | -- | |
| Benzene | | NA | 0.26 | -- | | NA | 0.26 | -- | 0.26 | -- | |
| Bromodichloromethane | | NA | 0.23 | -- | | NA | 0.23 | -- | 0.23 | -- | |
| Bromoform | | NA | 0.5 | -- | | NA | 0.5 | -- | 0.5 | -- | |
| Bromomethane | | NA | 0.47 | -- | | NA | 0.47 | -- | 0.47 | -- | |
| 2-Butanone | | NA | 0.91 | -- | | NA | 0.91 | -- | 0.91 | -- | |
| Carbon Disulfide | | NA | 0.56 | -- | | NA | 0.56 | -- | 0.56 | -- | |
| Carbon Tetrachloride | | NA | 0.8 | -- | | NA | 0.80 | -- | 0.80 | -- | |
| Chlorobenzene | | NA | 0.58 | -- | | NA | 0.58 | -- | 0.58 | -- | |
| Chloroethane | | NA | 0.81 | -- | | NA | 0.81 | -- | 0.81 | -- | |
| Chloroform | | NA | 0.59 | -- | | NA | 0.59 | -- | 0.59 | -- | |
| Chloromethane | | NA | 0.23 | -- | | NA | 0.23 | -- | 0.23 | -- | |
| Dibromochloromethane | | NA | 3.7 | -- | | NA | 3.7 | -- | 3.7 | -- | |
| 1,1-Dichloroethane | | NA | 2.3 | -- | | NA | 2.3 | -- | 2.3 | -- | |
| 1,2-Dichloroethane | | NA | 0.21 | -- | | NA | 0.21 | -- | 0.21 | -- | |
| 1,1-Dichloroethene | | NA | 0.71 | -- | | NA | 0.71 | -- | 0.71 | -- | |
| Cis-1,2-Dichloroethene | | NA | 0.52 | -- | | NA | 0.52 | -- | 0.52 | -- | |
| Trans-1,2-Dichloroethene | | NA | 0.37 | -- | | NA | 0.37 | -- | 0.37 | -- | |
| 1,2-Dichloropropane | | NA | 0.32 | -- | | NA | 0.32 | -- | 0.32 | -- | |
| 1,3-Dichloropropene (Total) | | NA | 0.19 | -- | | NA | 0.19 | -- | 0.19 | -- | |
| Ethylbenzene | | NA | 0.43 | -- | | NA | 0.43 | -- | 0.43 | -- | |
| 2-Hexanone | | NA | 0.51 | -- | | NA | 0.51 | -- | 0.51 | -- | |
| 4-Methyl-2-Pentanone | | NA | 0.37 | -- | | NA | 0.37 | -- | 0.37 | -- | |
| Methylene Chloride | | NA | | 4.2 | | NA | | N | | | N |
| Styrene | | NA | 0.13 | -- | | NA | 0.13 | -- | 0.13 | -- | |
| 1,1,2,2-Tetrachloroethane | | NA | 0.46 | -- | | NA | 0.46 | -- | 0.46 | -- | |
| Tetrachloroethene | | NA | 0.62 | -- | | NA | 0.62 | -- | 0.62 | -- | |
| Toluene | | NA | 1.6 | -- | | NA | 1.6 | -- | 1.6 | -- | |
| 1,1,1-Trichloroethane | | NA | 0.5 | -- | | NA | 0.50 | -- | 0.50 | -- | |
| 1,1,2-Trichloroethane | | NA | 0.35 | -- | | NA | 0.35 | -- | 0.35 | -- | |
| Trichloroethylene | | NA | 0.44 | -- | | NA | 0.44 | -- | 0.44 | -- | |
| Vinyl Chloride | | NA | 0.71 | -- | | NA | 0.71 | -- | 0.71 | -- | |
| Xylenes (Total) | | NA | 1.5 | -- | | NA | 1.5 | -- | 1.5 | -- | |
| Tertiary-Butyl Alcohol | | NA | | NA | | NA | 1.0 | -- | 1.0 | -- | |
| Methyl T-Butyl Ether | | NA | | NA | | NA | | 4.9 | 0.48 | -- | |
| **Total Non-Target VOCs** | | NA | | -- | | NA | | -- | | -- | |
| **Total Volatile Organic Compounds** | | NA | | 4.2 | | NA | | 4.9 | | -- | |
| **Semi-Volatile Organic Compounds** | | | | | | | | | | | |
| 2,4-Dinitrophenol | | NA | | NA | | NA | | NA | | NA | |
| 4-Nitrophenol | | NA | | NA | | NA | | NA | | NA | |
| Dibenzofuran | | NA | | NA | | NA | 0.42 | -- | | NA | |
| Dinitrotoluene (2,4-/2,6-mixture) | | NA | | NA | | NA | 0.39 | -- | | NA | |
| Diethylphthalate | | NA | | NA | | NA | 0.45 | -- | | NA | |
| 4-Chlorophenyl-Phenyl Ether | | NA | | NA | | NA | 0.40 | -- | | NA | |
| Fluorene | | NA | | NA | | NA | 0.33 | -- | | NA | |
| 4-Nitroaniline | | NA | | NA | | NA | 0.35 | -- | | NA | |
| 4,6-Dinitro-2-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| N-Nitrosodiphenylamine (1) | | NA | | NA | | NA | 0.42 | -- | | NA | |
| 4-Bromophenyl-Phenylether | | NA | | NA | | NA | 0.60 | -- | J | NA | |
| Hexachlorobenzene | | NA | | NA | | NA | 0.39 | -- | | NA | |
| Pentachlorophenol | | NA | | NA | | NA | | NA | | NA | |
| Phenanthrene | | NA | | NA | | NA | 0.39 | -- | | NA | |
| Anthracene | | NA | | NA | | NA | 0.41 | -- | | NA | |
| Carbazole | | NA | | NA | | NA | 0.41 | -- | | NA | |
| Di-n-Butylphthalate | | NA | | NA | | NA | 0.65 | -- | | NA | |
| Fluoranthene | | NA | | NA | | NA | 0.34 | -- | | NA | |
| Pyrene | | NA | | NA | | NA | 0.43 | -- | | NA | |
| Butylbenzylphthalate | | NA | | NA | | NA | 0.54 | -- | | NA | |
| 3,3'-Dichlorobenzidine | | NA | | NA | | NA | 3.6 | -- | | NA | |
| Benzo(a)Anthracene | | NA | | NA | | NA | 0.40 | -- | | NA | |
| Chrysene | | NA | | NA | | NA | 0.47 | -- | | NA | |
| Bis(2-Ethylhexyl)Phthalate | | NA | | NA | | NA | 0.58 | -- | | NA | |
| Di-n-Octylphthalate | | NA | | NA | | NA | 0.43 | -- | | NA | |
| Benzo(b)Fluoranthene | | NA | | NA | | NA | 0.35 | -- | | NA | |
| Benzo(k)Fluoranthene | | NA | | NA | | NA | 0.42 | -- | | NA | |
| Benzo(a)Pyrene | | NA | | NA | | NA | 0.31 | -- | | NA | |
| Indeno(1,2,3-cd)Pyrene | | NA | | NA | | NA | 0.32 | -- | | NA | |
| Dibenzo(a,h)Anthracene | | NA | | NA | | NA | 0.47 | -- | | NA | |

TABLE 9
ANALYTICAL RESULTS/QA/QC - GROUNDWATER
OYSTER CREEK NUCLEAR GENERATING STATION

| URSGWC SAMPLE NO. | | FB0903W4 | | FB0903W6 | | FB0903CR | | FB1221 | | TB1221 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAB ID | | 93536012 | | 93536013 | | 93536003 | | 94896-005 | | 94896-006 | |
| SAMPLE COLLECTION DATE | | 09/03/1999 | | 09/03/1999 | | 09/03/1999 | | 12/21/1999 | | 12/21/1999 | |
| MATRIX | | WATER | | WATER | | WATER | | WATER | | WATER | |
| UNITS | MDL | ug/L | MDL | ug/L | MDL | ug/L | MDL | ug/l | MDL | ug/l | Q |
| Benzo(g,h,i)Perylene | | NA | | NA | | NA | 0.35 | -- | | NA | |
| Phenol | | NA | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethyl)Ether | | NA | | NA | | NA | 0.28 | -- | | NA | |
| 2-Chlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 1,3-Dichlorobenzene | | NA | | NA | | NA | 0.50 | -- | | NA | |
| 1,4-Dichlorobenzene | | NA | | NA | | NA | 0.59 | -- | | NA | |
| Benzyl Alcohol | | NA | | NA | | NA | | NA | | NA | |
| 1,2-Dichlorobenzene | | NA | | NA | | NA | 0.61 | -- | | NA | |
| 2-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| 2,2-Oxybis(1-Chloropropane) | | NA | | NA | | NA | 0.68 | -- | | NA | |
| 4-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| N-Nitrosodi-n-Propylamine | | NA | | NA | | NA | 0.39 | -- | | NA | |
| Hexachloroethane | | NA | | NA | | NA | 0.50 | -- | | NA | |
| Nitrobenzene | | NA | | NA | | NA | 0.36 | -- | | NA | |
| Isophorone | | NA | | NA | | NA | 0.30 | -- | | NA | |
| 2-Nitrophenol | | NA | | NA | | NA | | NA | | NA | |
| 2,4-Dimethylphenol | | NA | | NA | | NA | | NA | | NA | |
| Benzoic Acid | | NA | | NA | | NA | | NA | | NA | |
| Bis(2-Chloroethoxy) Methane | | NA | | NA | | NA | 0.39 | -- | | NA | |
| 2,4-Dichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 1,2,4-Trichlorobenzene | | NA | | NA | | NA | 0.44 | -- | | NA | |
| Naphthalene | | NA | | NA | | NA | 0.38 | -- | | NA | |
| 4-Chloroaniline | | NA | | NA | | NA | 0.25 | -- | | NA | |
| Hexachlorobutadiene | | NA | | NA | | NA | 0.54 | -- | | NA | |
| 4-Chloro-3-Methylphenol | | NA | | NA | | NA | | NA | | NA | |
| 2-Methylnaphthalene | | NA | | NA | | NA | 0.34 | -- | | NA | |
| Hexachlorocyclopentadiene | | NA | | NA | | NA | 1.5 | -- | | NA | |
| 2,4,6-Trichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 2,4,5-Trichlorophenol | | NA | | NA | | NA | | NA | | NA | |
| 2-Chloronaphthalene | | NA | | NA | | NA | 0.42 | -- | | NA | |
| 2-Nitroaniline | | NA | | NA | | NA | 0.43 | -- | | NA | |
| Dimethylphthalate | | NA | | NA | | NA | 0.43 | -- | | NA | |
| Acenaphthylene | | NA | | NA | | NA | 0.38 | -- | | NA | |
| 3-Nitroaniline | | NA | | NA | | NA | 1.4 | -- | | NA | |
| Acenaphthene | | NA | | NA | | NA | 0.48 | -- | | NA | |
| **Total Non-Target SVOCs** | | NA | | NA | | NA | | -- | | NA | |
| **Total Semi-Volatile Organic Compounds** | | NA | | NA | | NA | | -- | | NA | |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | |
| Aroclor-1016 | 0.074 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1221 | 0.15 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1232 | 0.04 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1242 | 0.11 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1248 | 0.06 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1254 | 0.13 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1260 | 0.11 | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1262 | | -- | | NA | | NA | | NA | | NA | |
| Aroclor-1268 | | | | | | | | NA | | NA | |
| **Total PCBs** | | -- | | NA | | NA | | NA | | NA | |
| **TOTAL ORGANIC COMPOUNDS** | | -- | | 4.2 | | NA | | 4.9 | | -- | |
| **INORGANIC COMPOUNDS** | | | | | | | | | | | |
| **Metals** | | | | | | | | | | | |
| Antimony | | NA | | NA | | NA | | NA | | NA | |
| Arsenic | | NA | | NA | | NA | | NA | | NA | |
| Beryllium | | NA | | NA | | NA | | NA | | NA | |
| Cadmium | | NA | | NA | | NA | | NA | | NA | |
| Total Chromium | | NA | 0.239 | -- | 0.239 | -- | | NA | | NA | |
| Copper | | NA | | NA | | NA | | NA | | NA | |
| Lead | | NA | | NA | | NA | | NA | | NA | |
| Mercury | | NA | | NA | | NA | | NA | | NA | |
| Nickel | | NA | | NA | | NA | | NA | | NA | |
| Selenium | | NA | | NA | | NA | | NA | | NA | |
| Silver | | NA | | NA | | NA | | NA | | NA | |
| Thallium | | NA | | NA | | NA | | NA | | NA | |
| Zinc | | NA | | NA | | NA | | NA | | NA | |
| Hexavalent Chromium | | NA | 10 | -- | 10 | -- | | NA | | NA | |

NOTES:
MDL Method Detection Limit
CONC Concentration
Q Qualifier
-- Not Detected
J Estimated value
B Analyte detected in field, trip, or method blank
NA Not analyzed
N Negated by URSGWC data validation