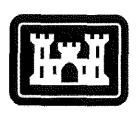
FUSRAP NIAGARA FALLS STORAGE SITE

2008

(December 18, 2007 to December 17, 2008)

ENVIRONMENTAL SURVEILLANCE TECHNICAL MEMORANDUM



US Army Corps of Engineers ®

Buffalo District

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ACRONYMS

RI

remedial investigation

AEC **Atomic Energy Commission ALARA** as low as reasonably achievable ANL Argonne National Laboratory applicable or relevant and appropriate requirement ARAR **ASTM** American Society for Testing and Materials CAP88-PC Clean Air Act Assessment Package – 1988 (USEPA) Comprehensive Environmental Response, Compensation, and Liability Act **CERCLA CFR** Code of Federal Regulations CYCalendar Year DCG derived concentration guide DOH Department of Health **EML Environmental Measurements Laboratory** ESP environmental surveillance plan **FFA** federal facility agreement ft feet FS feasibility study FSRD Former Sites Restoration Division **FUSRAP** Formerly Utilized Sites Remedial Action Program IG instruction guide interim waste containment structure **IWCS** km kilometers LWBZ Lower Water Bearing Zone MCL maximum contaminant level **MDA** Minimal Detectable Activity **MED** Manhattan Engineer District MEI Maximally Exposed off-site Individual meters m m^3 cubic meter micrograms per gram μg/g μg/L micrograms per liter mg/kg milligrams per kilogram milligrams per gram mg/ġ NEPA National Environmental Policy Act **NESHAPs** National Emission Standards for Hazardous Air Pollutants (USEPA) **NFSS** Niagara Falls Storage Site **NIST** National Institute for Standards and Technology **NPDES** National Pollutant Discharge Elimination System **NYSDEC** New York State Department of Environmental Conservation OSL optically stimulated luminescence **PAH** Polycyclic Aromatic Hydrocarbon **PCB** Polychlorinated Biphenyls pCi/g picocuries per gram pCi/l picocuries per liter QA quality assurance OC quality control **RCRA** Resource Conservation and Recovery Act

ACRONYMS (continued)

ROD	Record of Decision
RPD	relative percent difference
SDWA	Safe Drinking Water Act
SMCLS	secondary maximum contaminant levels
TDS	total dissolved solids
TETLD	tissue-equivalent thermo luminescent dosimeter
TLD	thermo luminescent dosimeter
USACE	United States Army Corps of Engineers
USAEC	United States Atomic Energy Commission
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USNRC	United States Nuclear Regulatory Commission
UWBZ	Upper Water Bearing Zone
VOC	Volatile Organic Compound
yd^3	cubic yard

EXECUTIVE SUMMARY

Purpose: The purpose of this Technical Memorandum is to document the scientific methods, criteria, data, and findings of the Environmental Surveillance Program (ESP) at the Niagara Falls Storage Site (NFSS). The ESP quantifies and evaluates radiological, chemical, and water quality data from the environment at the NFSS. This program is executed by the U.S. Army Corps of Engineers (USACE) Buffalo District in support of our mission to protect human health and the environment at the NFSS. This Technical Memorandum is published annually by the Buffalo District.

Key Findings: This Technical Memorandum documents the evaluation of environmental data collected at the NFSS throughout the calendar year 2008. The Corps evaluation of this data indicates that measured parameters were within U.S. Department of Energy (USDOE) guidelines and calculated exposure rates to the general public were well within regulatory limits. The 2008 data confirm that site controls are continuing to perform as designed and are fully protective of human health and the environment.

Site Description: The NFSS is located at 1397 Pletcher Road in the Town of Lewiston, NY, approximately 19 miles north of Buffalo, NY. The NFSS is a Federally owned property that is 191 acres in size. The NFSS was originally part of a World War II explosives plant called the Lake Ontario Ordnance Works (LOOW) which was approximately 7,500 acres in size. Between 1944 and 1954 the Manhattan Engineer District (MED) and the Atomic Energy Commission (AEC) brought radioactive wastes and residues to the LOOW Site. Through the 1970s the AEC gradually consolidated its operations and sold excess property to the public. In the 1980s the USDOE constructed a 10-acre Interim Waste Containment Structure (IWCS) on the NFSS to contain the radioactive wastes and residues.

Background: In 1974, the AEC, a predecessor to the USDOE, instituted the Formerly Utilized Sites Remedial Action Program (FUSRAP). This program is now managed by the USACE to identify, investigate, and clean up or control sites throughout the United States that were part of the Nation's early atomic weapons and energy programs or from commercial nuclear operations that Congress has authorized to be remediated under FUSRAP. In October 1997, Congress transferred the responsibility for FUSRAP from the USDOE to the USACE. In addition to investigating and remediating site contaminants at the NFSS, the USACE has been given responsibility for maintaining the site and conducting the ESP.

The ESP at the NFSS was initiated by the USDOE in 1981 to monitor radioactive waste and residues stored on site in the IWCS. The program included the sampling of air, water, and sediments for radiological and chemical parameters with the purpose of ensuring that the NFSS did not pose a threat to human health and the environment. The USACE has continued to follow the USDOE program with some revisions over the years. Modification of the program in 2008 reflects the findings of the recently completed Remedial Investigation (RI) Report (December 2007).

Prior to transfer of the FUSRAP to the USACE in 1997, the USDOE prepared reports based on USDOE Orders and guidance. USDOE Orders are not applicable to the activities of the USACE as the USACE is not under the authority or direction of the USDOE. However, the surveillance data continues to follow a format similar to that of the previous USDOE reports to provide the reader with consistent presentation of data and to facilitate

historical comparison between reports.

In December 2007, the USACE Buffalo District completed a RI Report that defined the nature and extent of contaminants on the NFSS and assessed their potential long-term risks. Based upon findings from this investigation and public input, the USACE further enhanced the ESP to ensure the protection of human health and the environment (Section 1.2 ESP Enhancements for 2008).

Additional information about the site and the ESP is available on the USACE Buffalo District website: http://www.lrb.usace.army.mil/fusrap/nfss/index.htm

Scope: The 2008 Environmental Surveillance Technical Memorandum presents the results of data obtained from samples collected during the 2008 monitoring program. To assess the data, the report compares the surveillance data with local background conditions and regulatory criteria. The structure of the report follows the format of previous USDOE reports to provide the reader with a consistent presentation of the data and to facilitate the interpretation of historical trends.

The Technical Memorandum provides a comparative analysis of local background conditions and regulatory criteria to results reported for external gamma radiation and for samples from the media investigated (including airborne radon gas, airborne particulates, surface waters, sediments, and groundwater). Data tables and figures referenced in the text are included at the end of the Technical Memorandum.

Evaluation of Data: The USDOE and U.S. Environmental Protection Agency (USEPA) guidelines are cited throughout this report to aid in the evaluation of environmental data. This memorandum compares data with USDOE guidelines because the USDOE has "property accountability" for the site. The guideline values do not represent cleanup criteria of a long-term remedy for the contaminants at the NFSS.

Results of the 2008 surveillance program at NFSS continue to show that measured parameters of the surveillance program did not exceed USDOE guidelines and, dose rates of potential off-site radiation exposure to the public did not exceed USDOE or USEPA limits.

Radiological parameters including uranium, thorium, and radon isotopes in air, surface water, and sediments were all within USDOE limits, and radon flux measurements from the IWCS were within USEPA standards. Groundwater concentrations of radiological parameters were also well below USDOE guidelines.

As in the past, findings for total uranium levels in groundwater continue to exceed the USEPA safe drinking water concentration limits per their Safe Drinking Water Act (SDWA) maximum contaminant levels (MCLs) at seven groundwater monitoring well locations. These wells consist of two monitoring wells from the original surveillance program and five wells added to the program in 2008 based on elevated findings from the Remedial Investigation (NFSS Remedial Investigation Report, December 2007). Since the NFSS is not a source of drinking water, MCLs are presented for comparative purposes only. Analytical results for sodium and sulfates, as observed in previous reports, were found to be consistently above New York State Department of Environmental Conservation (NYSDEC) groundwater standards in on-site wells and background samples.

Long-Term Remedy: In addition to executing the ESP at the NFSS, the USACE Buffalo District is executing an environmental investigation to determine the long-term remedy for the contaminants at the NFSS. This investigation is being conducted in accordance with the Federal cleanup process created by Congress and developed by the USEPA. This process was authorized under the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). A summary of this process and the anticipated schedule for completion at the NFSS is provided below (Note: The anticipated long-term schedule is subject to change depending on many factors including annual funding, public input, and execution of work.)

The nature and extent of contamination and an assessment of associated risks are documented in the RI Report which was published in December 2007. The results of this investigation are being used to enhance the ESP to ensure the site is continually and fully protective of human health and the environment surrounding the NFSS.

- -Addition of groundwater wells, surface water and sediment locations have been added for the 2008 ESP based on findings from the RI to further evaluate areas affected by past storage and handling of materials at NFSS.
- An Addendum to the RI Report is being prepared in response to comments received on the report.
- A Feasibility Study is being performed for the IWCS to identify, define the scope, and evaluate a wide range of long-term remedies to address the FUSRAP-related material in the structure.
- The USACE will identify and document a preferred long-term remedy (the Proposed Plan) for the IWCS.
- Additional Feasibility Studies and Proposed Plans for the site soils and infrastructure, and groundwater will follow.
- After public comment on the Proposed Plans, the USACE will select a long-term remedy for the IWCS, site soils and infrastructure, and groundwater and document this decision in their respective Record of Decisions (RODS).
- Following completion of the RODS, the USACE will implement the long-term remedy through remedial design, construction, operations, and any required long-term monitoring.

1.0 INTRODUCTION

The Niagara Falls Storage Site (NFSS) is located in the Town of Lewiston in northwestern New York State, northeast of Niagara Falls and south of Lake Ontario (Figure 1, Appendix A). NFSS is approximately 191 acres (77 hectares) in size which includes: one former process building (Building 401), one office building (Building 429), an equipment shed (Hitman Building), a new storage shed for maintenance equipment, and a 9.9 acre (4 hectares) interim waste containment structure (IWCS). The property is fenced, and public access is restricted.

Land use in the region is primarily rural residential; however, the site is bordered by a state and Federally regulated chemical waste disposal facility to the north, a solid waste disposal facility to the east and south, and a National Grid Power Corporation right-of-way to the west. A commercial greenhouse is operated just south of the site and a recreational campground is located southwest of the site. The nearest residential areas are approximately 3,281 feet (ft) (1-km) west, southwest of the site; the residences are primarily single-family dwellings.

Beginning in 1944, the NFSS was used as a storage facility for radioactive residues and wastes. The residues and wastes are the process by-products of uranium extraction from pitchblende (uranium ore). The residues originated at other sites and were transferred to the NFSS for storage in buildings, on-site pits, and surface piles.

Since 1971, activities at NFSS have been confined to residue and waste storage and remediation. On-site and off-site areas with residual radioactivity exceeding U.S. Department of Energy (USDOE) guidelines, were remediated by the USDOE between 1955 and 1992; materials generated during remedial actions (approximately 255,050 yd³ or 195,000 m³) are encapsulated in the IWCS, which is specifically designed to provide interim storage of the material.

1.1 Measured Parameters

The key elements of the 2008 environmental surveillance program (ESP) at NFSS were:

- measurement of external gamma radiation;
- measurement of radon gas concentrations in air (combined contributions from radon-220 and radon-222);
- monitoring of radon-222 flux (rate of radon-222 emission from the IWCS);
- calculation of external gamma dose to off-site receptors from radiation originating at the site (Appendix B);
- analysis of airborne emissions from site soils and resultant doses to off-site receptors (Appendix C);
- sampling and analysis of surface water for isotopic uranium (U-234, U-235, U-238) and total uranium (sum of these three isotopes), isotopic thorium (Th-228, Th-230, Th-232) and total thorium (sum of these three isotopes) and isotopic radium (Ra-226, Ra-228) (referred to collectively as radioactive constituents);
- sampling and analysis of streambed sediments for radioactive constituents; and
- sampling and analysis of groundwater for radioactive constituents, metals, and water quality parameters.

1.2 ESP Enhancements for 2008

The bullets below summarize the recent enhancements to the ESP based on Remedial Investigation (RI) findings that will be reported and evaluated in the 2008 Technical Memorandum.

- the addition of ten groundwater-monitoring well locations for radiological, chemical, and water quality parameters (Appendix A: Table 1b, pg T-8 and Figure 2, pg. F-2);
- the addition of five streambed surface water and sediment locations (three of which are located in the West Drainage Ditch) for radiological, metal and chemical parameters (Appendix A: Table 1c, pg. T-9 and Figure 2, pg. F-2); and
- the addition of a fall round of groundwater, and streambed surface water and sediment sampling.

1.3 Unit Conversions

The tables in Appendix A (Table A.1 and A.2, Page T-1) list the units of measurement and appropriate abbreviations used in this document. Conventional units for radioactivity are used because the regulatory guidelines are generally provided in these terms.

2.0 REGULATORY GUIDELINES

The primary regulatory guidelines that affect activities at FUSRAP sites are found in Federal statutes and in Federal, State, and local regulations. Regulatory criteria that were used to evaluate the results of the 2008 ESP at NFSS are summarized below, categorized by media and parameters. In several cases USDOE guidelines continue to be identified in the technical memorandum for comparison purposes of historical data collected by USDOE or their contractors. The U.S. Army Corps of Engineers (USACE) is not under the authority of the USDOE orders or directives and can rely on other applicable Federal or State regulations in relation to surveillance of the IWCS. The values are for comparison only.

2.1 External Gamma Radiation and Air (Radon Gas and Airborne Particulate)

The regulatory guideline criteria used in evaluation of the calculated maximum doses from external gamma radiation and inhalation of radioactive particulate and the measured concentrations of radon gas include USDOE guidelines, United States Environmental Protection Agency (USEPA) standards, and USEPA guidance.

2.1.1 USDOE Order 5400.5 (January 1993)

Dose limits for members of the public from USDOE operations at USDOE-owned and USDOE-operated facilities are presented in this USDOE Order. The primary dose limit is expressed as an effective dose equivalent. The limit of 100-mrem total effective dose equivalent above background in a year from all sources (excluding radon) is specified in this Order; external gamma radiation dose and the calculated doses from airborne particulate releases are included in the calculation of the effective dose equivalent total. Also, this calculation includes contributions from other pathways, such as ingestion.

USDOE limits for radon concentrations in air from USDOE operations at USDOE-owned and USDOE-operated facilities are also presented in Order 5400.5. Based on the radioactive constituents in the wastes contained in the IWCS, it is unlikely that radon-220 would be emitted from the IWCS since the radon-220 half-life is approximately 55.6 seconds and this isotope would decay prior to permeating through the IWCS cap. It is, however, possible that radon-222 with a half-life of 3.8 days could be emitted. The USDOE limits for radon-222 concentrations in the atmosphere above facility surfaces or openings in addition to background levels are: 100 pCi/L at any given point; an annual average concentration of 30 pCi/L over the facility site; and an annual average concentration of 3.0 pCi/L at or above any location outside the facility site. To provide a conservative basis for comparison, on-site radon concentrations are evaluated against the off-site limit of 3.0 pCi/L.

2.1.2 USEPA Standards and USEPA Guidance

Radon

The USEPA also has a guidance action level of 4.0 pCi/L for radon concentrations for indoor air (homes and buildings), providing another conservative basis for comparison. Although these limits are specific to indoor

air, they provide a conservative basis for comparison to the outdoor air results obtained during environmental surveillance activities, for details see Appendix C. For further comparison, the average radon level in U.S. homes is about 1.25 pCi/L and the average outdoor value is 0.4 pCi/L (USEPA 1993).

Clean Air Act

Section 112 of the Clean Air Act authorized the USEPA to promulgate the National Emission Standards for Hazardous Air Pollutants (NESHAPs) which are given in 40 CFR 61. Compliance with Subpart H (for non-radon, radioactive constituents) is verified by applying the USEPA-approved CAP88-PC model. Compliance with Subpart Q is verified by annual monitoring of the IWCS for radon-222 flux (Appendix A, Table B, Page T-1).

2.2 Sediment, Surface Water, and Groundwater - Radioactive and Chemical Constituents

Federal regulatory criteria (Appendix A, Table C and D, Page T-2 -6) for evaluating the measured concentrations of radionuclides and chemicals in sediment, surface water, and groundwater at NFSS are as follows.

2.2.1 USDOE Order 5400.5 (January 1993)

This Order provides guideline limits for radioactive contaminants in water and soil at USDOE-owned and USDOE-operated facilities. These limits are known as the USDOE derived concentration guide (DCG). The USDOE DCG for drinking water is used to compare against those radiological findings for surface water and groundwater. USDOE historically applied the residual soil cleanup guideline criteria specified in USDOE Order 5400.5 to sediments. However, those values are provided for comparative purposes only. Applicable or relevant and appropriate requirement ARARs and media-specific cleanup goals will be evaluated independently and presented in future CERCLA decision documents that will be available for public comment.

Section 5.5 presents the data for this 2008 Technical Memorandum and describes the basis for comparisons with USDOE Order 5400.5 limits in detail.

2.2.2 Safe Drinking Water Act (SDWA)

The Safe Drinking Water Act (SDWA) is the primary Federal law applicable to the operation of a public water system and the development of drinking water quality standards [USEPA Drinking Water Regulations and Health Advisories (USEPA 1996)]. The regulations in 40 CFR Part 141 (National Primary Drinking Water Regulations) set maximum permissible levels of organic, inorganic, radionuclides (including uranium and combined radium) and microbial contaminants in drinking water by specifying the maximum contaminant level (MCL) for each. In some cases, secondary maximum contaminant levels (SMCLs), which are not federally enforceable (40 CFR 143.1), are provided as guidelines for the states. SMCLs are provided for a conservative comparison of analytical results and to provide consistency with previous reports and facilitate trend analysis.

The established (promulgated) MCL for combined concentrations of radium-226 and radium-228 is 5 pCi/L. The USEPA National Primary Drinking Water Regulation for Radionuclides (Final Rule – effective 2003) states a MCL of 30 μ g/L for total uranium. Thorium 228, 230 and 232 utilize an adjusted gross alpha MCL of 15 pCi/L excluding radon and uranium (National Primary Drinking Water Regulations; Radionuclide; Final Rule (Federal Register December 7, 2000). The appropriate standard for thorium isotopes is the gross alpha MCL of 15 pCi/L; this MCL includes the concentration of radium-226 but excludes radon and uranium isotopes . The adjusted gross alpha MCL for thorium is used for comparison as it is more conservative than the individual USDOE DCG of thorium-228 (400 pCi/L), thorium-230 (50 pCi/L) and thourim-232 (300 pCi/L)

Although groundwater at NFSS is not used as a public drinking water supply due to its poor water quality and the availability of public water, MCLs for drinking water are used as a conservative basis for evaluation of analytical results, maintaining consistency with previous reports and facilitating trend analysis (Table C and D in Appendix A, TABLES section, pages T-2 - 6).

2.2.3 Groundwater – Water Quality

Shallow groundwater resources at NFSS demonstrate uniformly poor groundwater quality and availability in the general region. Regional studies and studies conducted near the site (La Sala 1968, Wehran 1977, and Acres American 1981) conclude that groundwater quality is poor near the site because of high mineralization (see Section 5.6.2.2 Water Quality Parameters). Additionally, local studies (Wehran, 1977 and Acres American, 1981) indicate that the permeabilities of the shallow groundwater systems are sufficiently low that it is not practicable to obtain groundwater from these systems for water supply. On-site permeability testing at NFSS confirms the low permeabilities.

The USDOE conducted a well survey in 1988 and inventoried eight wells within 4.8 km of the site, none of which were reported as being used for drinking water but mainly for irrigation (USDOE 1994b). In 2007, the Niagara County Department of Health (DOH) updated its well inventory to include 9 potable wells (two of which were a sole source for drinking water), 8 non-potable wells, 20 abandoned wells and 77 idle wells within the survey area. Based on the USDOE report and recent Niagara County DOH, groundwater is not the main source of drinking water; however the NYSDEC Class GA groundwater standards were conservatively used to compare analytical results. Groundwater at NFSS consistently exceeds sodium and sulfate Class GA standards. Both the shallow and deep groundwater units at the NFSS exhibit over 1000 mg/L Total Dissolved Solids (TDS) and the deep groundwater commonly over 100 mg/L Chloride, which indicates that the site groundwater can be classified as saline or Class GSA (NYCRR 701.16).

Although groundwater at NFSS is not a public drinking water supply, State and Federal standards (Appendix A, Table D, pg. T-3) are used as a basis for evaluation of chemical analytical results.

2.2.4 New York State Department of Environmental Conservation (NYSDEC) Water Quality Criteria for Groundwater

NYSDEC has adopted the Federal SDWA standards into its own regulations in Title 6 New York Codes of

Rules and Regulations (NYCRR) Parts 700-705, "Water Quality Regulations for Surface and Groundwater" (NYSDEC 1996). In addition, NYSDEC has independently established standards for some constituents. To apply established standards, the State of New York categorizes groundwater resources by groundwater quality and use.

The Division of Water Technical and Operational Guidance Series (TOGS) specifically address source drinking water standards (NYSDEC –6 NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (August 1999)). These standards have been used to establish additional Class GA (related, conservative case) state water quality standards for comparison of analytical results.

2.2.5 New York State Department of Environmental Conservation (NYSDEC) Sediment Chemical Criteria

New York State regulatory criteria for evaluating sediment (Appendix A, Table D, Page T-3) concentrations of chemical constituents at NFSS is title 6 of the Office Compilation of New York Codes, Rules and Regulations Part 375 (6 NYCRR 375) unrestricted and restricted use (industrial) soil clean up objectives. This soil clean up objective criteria is utilized for comparison purposes as there are no concentration guidelines for sediment. Unrestricted use values from 6 NYCRR 375 for certain metal and polycyclic aromatic hydrocarbons constituents are based on a survey of soil background concentrations. It should be noted that sediment background concentrations would differ from soil background in many instances.

3.0 SAMPLING LOCATIONS AND RATIONALE

Radioactive materials that exceed USDOE cleanup guidelines at NFSS are stored in the IWCS. Exposure of members of the public to this radioactively contaminated material at NFSS is unlikely because of site access restrictions (e.g., fences) and engineering controls (e.g., pile covers). However, potential pathways to residual radioactivity that may exist outside the IWCS include direct exposure to external gamma radiation and inhalation of air containing radon or radioactively contaminated particulates from site soils; and contact with, or ingestion of, contaminated surface water, streambed sediments, or groundwater. The ESP at NFSS has been developed to provide surveillance of these exposure routes through periodic sampling and analysis for radioactive and chemical constituents. Figure 2 (Appendix A, pg. F-2) presents sampling locations and media associated with the ESP at NFSS. Figure 1 (Appendix A, pg. F-1) shows those background locations for external gamma, radon gas and radon flux (radon-222) monitoring. A summary of the ESP at NFSS for external gamma radiation, radon gas, radon flux, surface water, sediment, and groundwater can be found in Appendix A, Tables 1a-c, pages T-7 thru T-9.

External gamma radiation monitoring and radon gas measurements occur at fence line locations surrounding the NFSS as well as interior portions of the site, including the perimeter of the IWCS, to assess potential exposures to the public and site workers. Measurement of radon-222 flux is conducted annually at discrete grid intersections on the IWCS. See Appendix A, Figure 2, pg. F-2 for radiological monitoring (gamma and radon) locations at the site and radon-222 sample locations on the IWCS.

Groundwater monitoring wells have been selected to assess groundwater quality in areas representing background, potential source-areas (e.g., near the IWCS and past radiologic material storage areas), and down gradient (on-site) areas in the upper water-bearing zone (Appendix A, Figure 2, page F-2). Groundwater monitoring includes analysis for radioactive constituents, water quality parameters, and metals. Monitoring wells screened in the upper water-bearing zone (Appendix A, Figure 7, page F-7) would provide the earliest indication in the unlikely event of a breach of the IWCS. The glacio-lacustrine clay aquitard that hydraulically separates the upper and lower water-bearing zones will mitigate potential contaminant transport into the lower zone. The lower groundwater system was not monitored because past analytical results and recent RI results indicate there are no groundwater contaminant plumes, or constituents in excess of MCLs, in the lower water-bearing zone. However, to ensure that RI findings represent baseline conditions in the lower water-bearing zone, well OW04A has been included in the environmental surveillance program, starting in 2008, as a downgradient monitoring point for the IWCS.

Surface water and streambed sediment sampling of radioactive constituents is conducted along the drainage ditch system in upstream, on site, and downstream locations (Appendix A, Figure 2, page F-2) to assess the migration of constituents in these media should any occur.

4.0 SURVEILLANCE METHODOLOGY

Under the NFSS ESP, standard analytical methods approved and published by USEPA and the American Society for Testing and Materials (ASTM) are used for chemical (i.e., all non-radiological) analyses. The laboratories conducting the radiological analyses adhere to USEPA-approved methods and to procedures developed by the Environmental Measurements Laboratory (EML) and ASTM. A detailed listing of the specific procedures and the data quality objectives for the surveillance program is provided in the Environmental Surveillance Plan (USACE, June 2008).

All 2008 environmental surveillance activities at NFSS were conducted in accordance with the *Environmental Surveillance Plan* (USACE 2008) and surveillance methodology listed in Appendix A (Table E, page T-6).

5.0 ANALYTICAL DATA AND INTERPRETATION OF RESULTS

This section presents the data and interpretation of results for the ESP at NFSS. The data for the 2008 ESP are presented in Tables 2 through 11 (Appendix A). Trend graphs, summarizing analytical results for air, streambed sediment (spring collection data), surface water (spring collection data) and groundwater (spring collection data) for 2008 and the preceding ten years, are presented in Figures 9 through 26 (Appendix A).

In data tables containing analyses for radioactive constituents, some results may be expressed as negative numbers. Negative numbers can occur in the results when the average background activity of the laboratory counting instrument exceeds the measured sample activity. A negative result is generated when the instrument background activity is subtracted from the sample activity. For the purposes of interpretation, all values below the minimum detectable activity (MDA) are interpreted as having an unknown value between zero and the MDA. Therefore, a result below the MDA is referred to as a non-detected result in the text discussion.

Gross data results for surface water, sediment, and groundwater are compared to the USDOE soil guideline limits (for sediment) and DCGs (for surface water and groundwater), and are used in the assessment of potential impact. The analytical results including site background results are provided in the data tables. However, for simplicity of presentation, only the gross analytical results (without the background subtracted) are discussed in the text of this document.

Historical ranges in background concentrations for each radioactive analyte are determined from background sampling results from 1992 to 2008, unless otherwise noted. For gamma dose rates subtracting the calculated background from the sampling results for 2008 then gives an estimate of the above-background dose rate at each location; see Table 2 External Gamma Radiation Dose Rates (Appendix A, page T-7). When background is subtracted from the sampling result, it is possible that a negative number will be obtained much the same as a negative value may be obtained when the laboratory subtracts instrument background from a sample measurement.

Well B02W20S was selected to represent on-site background because it is distant from and not down-gradient of the IWCS. Additional background groundwater was sampled in 2003 from wells hydraulically up-gradient from operations at the adjacent property of Modern Landfill. Since these data, compiled for the RI, were comparable to historic groundwater concentrations from B02W20, this well was verified to be representative of on-site background conditions.

Some of the historical data from NFSS used a method for analysis of total uranium, which yields results in micrograms per liter (μ g/L), or parts per billion and micrograms per gram μ g/g or parts per billion for water and sediment samples, respectively. To allow direct comparison of results to the DCGs and soil guidelines, the data was converted to pCi/L and pCi/g, as appropriate. The specific activity for total uranium in drinking water sources has been estimated to be about 0.9 pCi/ μ g (USEPA 2000), which is the factor used to convert groundwater data from μ g/L to pCi/L in this report. The specific activity for total uranium in soil sources is estimated to be 0.67 pCi/ μ g (USEPA 2000).

5.1 External Gamma Radiation

External gamma radiation dose rates are measured using optically stimulated luminescence (OSL) dosimeters continuously for the year. OSL dosimeters replaced thermo luminescent dosimeters (TLDs) for 2008. OSL results for the 2008 external gamma radiation dose (both raw and corrected data) are presented in Table 2 (Appendix A, Tables, External Gamma Radiation at NFSS).

The data are used to calculate the external gamma radiation dose rate at both the nearest residence and the nearest commercial/industrial facility to determine the hypothetical maximally exposed off-site individual (MEI). The dose rate is a function of the site fence line dose, the distance of the individual from the fence line, and the amount of time the individual spends at that location. Results of this calculation are expressed as a dose to the individual in mrem for the year.

Distances to off-site receptors are based on the findings of a year 2005 canvas of areas near the site. Based on external gamma radiation results, the hypothetical MEI is a resident located 500 ft (152.4 meters) from the western perimeter fence, southwest of the site that received a dose of 0.005 mrem for calendar 2008. The hypothetical dose to the nearest off-site worker located 1,020 ft (310.9 meters) east of the site is 0.003 mrem for calendar year 2008. Appendix B, Calendar Year (CY) 2008 Calculation of External Gamma Radiation Dose Rates for Niagara Falls Storage Site, Section 4.1 contains all pertinent calculations. External gamma dose rates from the NFSS and IWCS perimeters from 1998 thru 2008 are presented in Figures 9 and 10 of Appendix A. Both doses are well below the USDOE guideline of 100 mrem/year for all pathways, excluding radon.

5.2 Radon Gas

Radon monitoring at NFSS is performed at a height that is representative of the human breathing zone (5.6 ft or 1.7 meters above ground level). Radon concentration diminishes significantly as distance from the ground increases and mixing with ambient air takes place.

Based on the radioactive constituents in the wastes contained in the IWCS, it is unlikely that radon-220 would be emitted from the IWCS; however, it is possible that radon-222 would be emitted. Air surveillance is conducted to determine the concentration of radon gas at NFSS using Radtrak® detectors that are designed to measure alpha particle emissions from both isotopes of radon (radon-220 and radon-222) and to collect passive, integrated data throughout the period of exposure. Because radon-220 is not a contaminant of concern at NFSS (due to the relatively low concentrations of radium-228 and the short half-life of radon-220), all concentrations are conservatively assumed to be radon-222. Results of semiannual monitoring for 2008 are presented in Appendix A, Table 3, pg. T-11. The corresponding surveillance locations are shown in Appendix A, Figure 2, pg. F-2.

Consistent with results from previous years, all site radon-222 results from the 2008 ESP were well below the USDOE off-site limit of 3.0 pCi/L above background. Results presented are without background subtracted and ranged from non-detect (less than 0.2 pCi/L) to 0.3 pCi/L. The background locations results were all non-detect (less than 0.2 pCi/L). Site average of 0.21 pCi/L (non-detects included in average) is comparable to that of the background average of less than 0.2 pCi/L and to that of the average outdoor value of 0.4 pCi/L (USEPA

1993). Radon concentrations at the NFSS perimeter for the 1st and 2nd half of the year are presented in Figures 11 and 12 respectively. Radon concentrations at the IWCS perimeter for the 1st and 2nd half of the year are presented by Figures 13 and 14 respectively.

5.3 Radon-222 Flux

Measurement of radon-222 flux provides an indication of the rate of radon-222 emission from a surface. Radon-222 flux is measured with activated charcoal canisters placed at 49.2 ft (15-meters) grid across the surface of the IWCS for a 24-hour exposure period. Measurements for 2008 are presented in Table 4; measurement locations are shown in Figure 2, Appendix A.

Measured results for 2008 ranged from non-detect to 0.23490 pCi/m²/s, with an average (of detects and non-detects) result of 0.05368 pCi/m²/s (Appendix A, Table 4). Background measured results indicated one finding of 0.05763 pCi/m²/s and two non-detect findings at 0.01054 and 0.02055 pCi/m²/s. As in previous years, these results are well below the 20.0 pCi/m²/s standard specified in 40 CFR Part 61, Subpart Q, as well as comparable to background and demonstrate the effectiveness of the containment cell design and construction in mitigating radon-222 migration.

5.4 Airborne Particulate Dose

To determine the dose from airborne particulates potentially released from NFSS during 2008, airborne particulate release rates were calculated using RI soil data (collected between 1999 and 2004), and weather data for the year 2008 from the National Weather Service (Niagara Falls International Airport). Contributions from radon gas, which is not a particulate, are not considered in this calculation. The total airborne particulate release rate is input into the USEPA's CAP88-PC (Version 3.0) computer model to perform two calculations:

- 1. The first calculation estimates resultant doses from airborne particulates to hypothetical individuals at the distances to the nearest residences and to the nearest commercial/industrial facilities as measured from a central location on site. Hypothetical doses are then corrected for commercial/industrial facility occupancy at an assumed rate of 40 hours/week for 50 weeks/year. Residential occupancy is assumed to be full-time (i.e., 24 hours/day and 365 days/year [366 days for a leap year]). The hypothetical individual receiving the higher of these calculated doses is then identified as the hypothetical MEI for airborne particulate dose.
- 2. The second calculation estimates the hypothetical airborne particulate collective dose to the population within 50 miles (80 km) of the site using a population file (2000 census data for New York State and 2001 census data for the Province of Ontario) to determine the number of people in circular grid sections radiating to 80 km from the center of site.

The first calculation (Appendix C) indicates that the 2008 airborne particulate dose to the hypothetical MEI, a home resident, 2,999 ft (914 meters) south-southwest of the site, was 0.0016 mrem. These values are well below the 10 mrem per year standard, individual dose, specified in 40 CFR, Part 61, Subpart H, and the USDOE Order 5400.5. The second calculation indicates that the hypothetical airborne particulate collective

dose to the population within 50 miles (80 km) of the site was 0.047 person-rem. This compares to a yearly background dose to the same population of 5,425,000 person-rem, (see Figure 8, Appendix A, and note that the US per capita dose from background radiation has been increased to 620 mrem/person mainly due to increased use of nuclear medical imaging). Details of the calculations, including methodology are presented in Appendix C (FUSRAP CY 2008 NESHAP ANNUAL REPORT FOR NIAGARA FALLS STORAGE SITE).

5.5 Surface Water and Sediment

In 2008, as mentioned in section: 1.2 ESP Enhancements for 2008, the fall sampling event was added in 2008 making sampling biannual (spring and fall) for surface water and sediment. In addition to the biannual sampling five new locations were added to the surface water and sediment locations, bringing the number of sampling points to ten. Samples were collected at: SWSD009, SWSD021, SWSD023 (added in 2008) and SWSD024 (added in 2008) at the upstream fence line; SWSD010 and SWSD022 on site along the central drainage ditch; SWSD011, downstream along the central drainage ditch; and WDD1, WDD2 and WDD3 along the west drainage ditch (all three added in 2008) outside of the site perimeter fence. Surface water and sediment sampling location SWSD009 was selected as a background location because it is at the upstream boundary of the South 31 drainage ditch, which eventually joins the central drainage ditch. Surface water and sediment sampling location SWSD021 was selected as a background location because it is located upstream, along the NFSS fence line, where the central drainage ditch first enters the property. Sampling locations are presented in Figure 2, Appendix A.

Surface water and sediment samples were analyzed for radiological analytes (radium-226, radium-228, thorium-228 (added in 2008) thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238), metals, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and pesticides. Metals and the organics (VOCs, PAHS and PCBS) are new to the ESP program for 2008. The 2008 spring and fall environmental surveillance analytical results for surface water and sediment samples are presented in Appendix A, Tables 6 thru 9, respectively. Analytical results for surface water in 2008 are compared with the USDOE DCGs, National Primary Drinking Water Regulations and New York State (NYS) Water Quality Criteria.

Because there are no radiological established limits for sediments, USDOE historically used the surface soil criterion of 5 pCi/g as a basis of comparison of radium-226, radium-228, thorium-230 and thorium-232 analytical results, and the derived site-specific criterion of 90 pCi/g for total uranium in surface soil. For comparison of organic (VOCs, PAHs and Pesticides) and inorganic (Metals) constituent findings in sediment New York State soil cleanup objectives (6 NYCRR PART 375-Tables 375-6.8 a and b) for unrestricted use and restricted use (industrial) are utilized.

Radiological background concentrations were determined by comparing 2008 analytical results for the appropriate constituents at surface water/sediment sampling locations SWSD009 and SWSD021, which are viewed as background since they are collected at the site boundary where surface water flows on to NFSS from offsite.

5.5.1 Surface Water

5.5.1.1 Surface Water Radiological Findings

In 2008 both the spring and fall (added in 2008) surface water radiological analytical results were consistently less than the USDOE DCGs, and generally indistinguishable from historical spring sampling background (upstream) concentrations. In 2008, surface water analytical results were less than the SDWA MCLs. The 2008 radiological results for the surface water were generally slightly lower or comparable to past results (spring sampling findings) with the exception of 2004 results for sampling location SWSD010 which were elevated due to the turbidity of the sample. Figure 2 (Appendix A, pg. F-2) shows those locations sampled for surface water. Measured results (on-site background locations SWSD021 and SWSD009 are not subtracted) are provided (Appendix A, Tables 6 and 7) and discussed below:

 The 2008 analytical results for radium-226 concentrations in surface water are consistent with historical spring sampling results and are indistinguishable from on-site background. Radium-226 results from upstream (on-site background) locations were:

Ra-226 Background Findings (pCi/L) in 2008

Location	Spring	Fall
SWSD009	Non-Detect	0.281
SWSD021	Non-Detect	Non-Detect

The findings compare favorably with the historical spring sampling (1997 to present) background. The 2008 spring and fall results of analysis for radium-226 in samples collected at locations WDD1, 2, and 3, and SWSD010, 11, 22, 23 and 24 were:

2008 Spring Ranges:

non-detect to 0.564 pCi/L

2008 Fall Ranges:

non-detect to 0.884 pCi/L

The radium-226 USDOE DCG is 100 pCi/L.

Total radium (Ra-226 and Ra-228) concentrations in surface water are below the SDWA limit (5 pCi/L) and the USDOE DCG (100 pCi/L), as shown in Figure 15 from 1997 to 2008 (spring collection data trended).

 The 2008 on-site analytical results for radium-228 concentrations in surface water are consistent with historical spring sampling results and are indistinguishable from on-site background. Radium-228 results from on-site background locations SWSD009 and SWSD021 were:

Ra-228 Background Findings (pCi/L) in 2008

Location	Spring	Fall
SWSD009	Non-Detect	0.203
SWSD021	Non-Detect	0.693

The findings compare favorably with historical spring sampling (1997 to present) findings for on-site background that range of non-detect to 1.02 pCi/L. The 2008 results for radium-228 in samples collected at locations WDD1, 2 and 3, and SWSD010, 11, 22, 23 and 24 were:

2008 Spring Ranges: non-detect to 1.030 pCi/L 2008 Fall Ranges: non-detect to 1.760 pCi/L

The radium-228 USDOE DCG is 100 pCi/L. Total radium (Ra-226 and Ra-228) concentrations in surface water are below the SDWA limit (5 pCi/L) and the USDOE DCG (100 pCi/L), as shown in Figure 15 from 1997 to 2008 (spring collection data trended).

- Thorium-228 (added in 2008) results from on-site background locations SWSD009 and SWSD021 for spring and fall sampling events were both non-detect, as were samples collected at locations WDD1, 2 and 3, and SWSD010, 11, 22, 23 and 24. Thorium-228 concentrations in surface water are below the adjusted gross alpha MCL SDWA limit of 15 pCi/L. The thorium-228 USD0E DCG is 400 pCi/L.
- Thorium-230 results from on-site background locations SWSD009 and SWSD021 were non-detect, for spring and fall sampling events, and compared favorably with historical spring sampling (1997 to present) findings for on-site background that range from non-detect to 1.20 pCi/L from both background locations. Spring historical values for surface water SWSD009 are non-detect to 0.60 pCi/L which is considered to be more representative of on-site background. The 2008 results for thorium-230 in on-site samples collected at locations WDD1, 2, and 3, and SWSD010, 11, 22, 23, and 24 were:

2008 Spring Ranges: non-detect to 1.430 pCi/L 2008 Fall Ranges: non-detect to 0.274 pCi/L

The thorium-230 USDOE DCG is 300 pCi/L. Thorium-230 concentrations in surface water are below the adjusted gross alpha MCL SDWA limit of 15 pCi/L and the USDOE DCG of 300 pCi/L, as shown in Figure 16 from 1997 to 2008 (spring collection data trended).

• Thorium-232 results from on-site background locations SWSD009 and SWSD021 were non-detect for spring and fall sampling events comparing favorably with the historical spring sampling (1997 to present) findings for on-site background that range from non-detect to 0.613 pCi/L. The 2008 results for thorium-232 on-site samples collected at locations WDD1, 2 and 3, and SWSD010, 11, 22, 23 and 24 were all non-detect for spring and fall sampling events. The USDOE DCG for thorium-232 is 50 pCi/L.

Thorium-232 concentrations in surface water are below the adjusted gross alpha MCL SDWA limit (15 pCi/L) and the USDOE DCG (50 pCi/L), as shown in Figure 17 from 1997 to 2008(spring collection data trended).

 Total uranium on-site analytical results for 2008 in surface water are consistent with the historical spring sampling results and are indistinguishable from on-site background. Total uranium from on-site background locations SWSD009 and SWSD021 were:

Total Uranium Background Findings (pCi/L) in 2008

Lo	cation	Spring	Fall	
SV	VSD009	3.223	8.677	
SV	VSD021	9.815	4.420	

The 2008 on-site analytical results for total uranium in surface water, ranged from:

2008 Spring Ranges:

0.791 to 10.280 pCi/L

2008 Fall Ranges:

0.964 to 6.090 pCi/L

Findings compare favorably against the on-site background. The historical spring sampling (1997 to present) findings for on-site background concentration for total uranium range from 1.8 to 25.56 pCi/L from both background locations or 1.8 to 8.67 pCi/L from surface water location SWSD009, which is considered to be more representative of background. As shown in Figure 18, concentrations of total uranium (spring sampling findings) in surface water demonstrate a trend that is below the SDWA limit of $30 \,\mu\text{g/L}$ (27pCi/L), with the exception of SWSD010 in April 2004. That single anomaly was attributed to greater turbidity.

5.5.1.2 Surface Water Chemical Findings

Surface water samples collected for organic and inorganic analysis, these analytical parameters were added in 2008 to the ESP, are compared against Federal SDWA MCLs and those of New York State water quality standards for comparative purposes as the surface water is not a drinking source.

- Background samples (SWSD009 and SWSD021) for metal findings were in exceedance of one or both of
 the following: the SDWA and/or the State water quality criteria for aluminum, antimony, chromium, iron,
 manganese, sodium and vanadium. Samples collected at locations WDD 1, 2 and 3 and SWSD 010, 011,
 022, 023 and 024 were in exceedance of aluminum, antimony, iron, manganese and sodium for both spring
 and fall sampling.
- Background samples (SWSD009 and SWSD021) for volatile organic compound findings and samples collected at locations WDD 1, 2 and 3 and SWSD 010, 011, 022, 023 and 024 were within SDWA and State MCLs with the following exception: SWSD010 (fall) finding (7.91 μg/L) for tetrachloroethylene exceeded both the SDWA and State MCL (5 μg/L).
- Polycyclic aromatic hydrocarbons have only one established MCL, therefore values will be evaluated by utilizing individual values and as a total value. Spring and fall background sample (SWSD009 and SWSD021) polycyclic aromatic hydrocarbon (PAH) compound findings were either non-detect or below 0.5 μg/L individually or below 0.7 μg/L total PAHs. Samples collected (spring and fall) at locations WDD 1, 2 and 3, and SWSD 010, 011, 022, 023 and 024 were all non-detect with the following exception: SWS010 had a finding for pyrene at 0.0288 μg/L. Pyrene has no established MCL for the SDWA or State water quality criteria.

- Background samples (SWSD009 and SWSD021) for polychlorinated biphenyls (PCBs) were all non-detect for the spring and fall. Samples collected at locations WDD 1, 2 and 3, and SWSD 010, 011, 022, 023 and 024 were non-detect for the spring and fall.
- Background samples (SWSD009 and SWSD021) for pesticides were all non-detect for spring and fall. Samples collected at locations WDD 1, 2 and 3 and SWSD 010, 011, 022, 023 and 024 were non-detect for the spring and fall. SWSD023 (spring) and SWSD010 (fall) had findings for Endosulfan-I at 0.0949 and 0.0771 μg/L. There is no established Endosulfan-I MCL for the SDWA or State water quality criteria.

5.5.2 Sediment

5.5.2.1 Sediment Radiological Findings

Concentrations of radium-226, radium-228, thorium-228 (added in 2008), thorium-230, thorium-232, and total uranium in shallow sediment were less than the USDOE surface soil guidelines and were generally indistinguishable from on-site background conditions. At all on-site sampled locations, results were less than the USDOE guideline for mixtures of radionuclides (using the sum-of-the-ratios method). Figure 2 (Appendix A, pg. F-2) shows those locations sampled for sediment. Measured results are presented (Appendix A, Tables 8 and 9), and discussed below:

 The 2008 analytical results for radium-226 in sediment are consistent with historical spring sampling analytical results. Radium-226 results from on-site background locations were:

Ra-226 Background Findings (pCi/g) in 2008

Location	Spring	Fall
SWSD009	1.000	1.180
SWSD021	1.120	1.000

Findings compare favorably with the historical spring sampling (from 1997 to present) for on-site background that range from non-detect to 2.0 pCi/g. The 2008 results of analysis for radium-226 in samples collected at locations WDD 1, 2 and 3, and SWSD010, 11, 22, 23 and 24 were:

2008 Spring Ranges:

0.679 to 1.182 pCi/g

2008 Fall Ranges:

0.659 to 1.680 pCi/g

Combined radium-226 and -228 USDOE DCG is 5 pCi/g above background for surface soil. Historically for spring, the concentration of radium-226 has ranged from non-detect to 3.40 pCi/g. The combined Ra-226 and Ra-228 background in surface soil from the NFSS RI Report (December, 2007) is 2.18 pCi/g. Therefore, the USDOE limit for residual radioactivity in surface soil is interpreted as 7.18 pCi/g. In addition, the historical spring sampling concentrations of total radium (radium-226 and radium-228) in sediment from 1997 to 2008 were below this criterion as shown in Figure 19.

• The 2008 analytical results for radium-228 in sediment are consistent with historical spring sampling analytical results. Radium-228 results from on-site background locations were:

Ra-228 Background Findings (pCi/g) in 2008

Location	Spring	Fall	
SWSD009	1.230	1.870	
SWSD021	1.450	0.030	

Historical spring sampling (from 1997 to present) findings for the on-site background concentration of radium-228 has ranged from non-detect to 2.5 pCi/g from both on-site background locations. The 2008 results for radium-228 in samples collected at locations WDD 1, 2 and 3, and SWSD010, 11, 22, 23 and 24 were:

2008 Spring Ranges:

0.236 to 1.640 pCi/g

2008 Fall Ranges:

0.834 to 2.400 pCi/g

Combined radium-226 and radium-228 concentrations in sediment were less than the USDOE guideline limit for residual radioactivity in surface soil criterion of 5 pCi/g above background (or 7.18 pCi/g as discussed above). In addition, the historical spring sampling concentrations of total radium (radium-226 and radium-228) in sediment from 1997 to 2008 were below this criterion as shown in Figure 19.

• The 2008 thorium-228 (added in 2008 to the ESP) results from on-site background locations were:

Th-228 Background Findings (pCi/g) in 2008

Location	Spring	Fall	
SWSD009	1.600	0.633	
SWSD021	1.380	1.690	

The 2008 results for thorium-228 in samples collected at on-site locations WDD1, 2 and 3, and SWSD010, 11, 22, 23 and 24:

2008 Spring Ranges:

1.100 to 1.800 pCi/g

2008 Fall Ranges:

0.754 to 1.520 pCi/g

All thorium-228 concentrations in sediment were less than the USDOE surface soil criterion of 5 pCi/g above on-site background.

• The 2008 analytical results for thorium-230 in sediment are consistent with historical spring sampling analytical results. Thorium-230 results from on-site background locations were:

Th-230 Background Findings (pCi/g) in 2008

Location	Spring	Fall
SWSD009	1.140	0.982
SWSD021	0.963	1.160

The 2008 results for thorium-230 in samples collected at on-site locations (WDD1, 2 and 3, SWSD010, 11, 22, 23 and 24):

2008 Spring Ranges:

0.809 to 1.780 pCi/g

2008 Fall Ranges:

0.519 to 1.570 pCi/g

Historical spring sampling (from 1997 to present) findings for the on-site background concentration of thorium-230 has ranged from 0.10 to 3.34 pCi/g. All thorium-230 concentrations in sediment were less than the USDOE surface soil criterion of 5 pCi/g above on-site background. The historic concentrations of thorium-230 in sediment from 1997 to 2008 were below this criterion as shown in Figure 20.

• The 2008 analytical results for thorium-232 in sediment are consistent with historical spring sampling analytical results. Thorium-232 results from on-site background locations:

Th-232 Background Findings (pCi/g) in 2008

Location	Spring	Fall
SWSD009	0.970	1.060
SWSD021	1.290	1.250

The 2008 results for thorium-232 in samples collected at on-site locations WDD 1, 2 and 3, SWSD010, 11, 22, 23 and 24 were:

2008 Spring Ranges:

0.755 to 1.360 pCi/g

2008 Fall Ranges:

0.686 to 1.450 pCi/g

Historical spring sampling (from 1997 to present) findings for the on-site background concentration of thorium-232 has ranged from non-detect to 1.78 pCi/g. All thorium-232 concentrations in sediment were less than the USDOE surface soil cleanup criterion of 5 pCi/g above on-site background. Historic spring sampling concentrations of thorium-232 in sediment from 1997 to 2008 were below this criterion as shown in Figure 21.

• The 2008 analytical results for total uranium (sum of isotopes) in sediment are consistent with historical spring sampling analytical results. Total uranium results from on-site background locations:

Total –U Background Findings (pCi/g) in 2008

Location	Spring	Fall
SWSD009	2.824	2.301
SWSD021	2.807	2.360

The 2008 results for total uranium in samples collected at on-site locations (WDD1, 2 and 3, SWSD010, 11, 22, 23 and 24):

2008 Spring Ranges: 1.813 to 5.623 pCi/g 2008 Fall Ranges: 1.850 to 6.292 pCi/g

Historical spring sampling (from 1997 to present) findings for on-site background concentration of total uranium has ranged from 1.8 to 10.10 pCi/g from both on-site background locations or 1.8 to 5.97 pCi/g from sediment location SWSD009, which is considered to be more representative of background. All uranium concentrations in sediment were less that the USDOE derived surface soil cleanup criterion of 90 pCi/g above on-site background. In addition, the historic (spring sampling) concentrations of total uranium (uranium-234, uranium-235 and uranium-238) in sediment from 1997 to 2008 were below this criterion as shown in Figure 22.

5.5.2.2 Sediment Chemical Findings

Sediment samples collected for organic and inorganic analysis, these analytical parameters were added in 2008 to the ESP, are compared against those of New York State unrestricted and restricted (industrial) use of soil cleanup objectives (6 NYCRR Part 375, Subpart 375-6, Tables 6.8 [a and b]). Spring and fall 2008 sediment findings are posted in Appendix-A in Tables 8 and 9.

- Background samples (SWSD009 and SWSD021) for metal findings exceeded the NYS unrestricted use of soil cleanup objectives, based on rural soil, for zinc and nickel. Samples collected at locations WDD 1, 2 and 3 and SWSD010, 011, 022, 023 and 024 were in exceedance of the NYS unrestricted use of soil cleanup objectives, based on rural soil, for copper, lead, mercury, nickel and zinc at several locations for the spring and fall sampling.
- Background samples (SWSD009 and SWSD021) for volatile organic compound findings were non-detect
 with the exception of acetone and total xylenes both being below the NYS unrestricted use of soil cleanup
 objective. Samples collected at locations WDD 1, 2, and 3 and SWSD 010, 011, 022, 023, and 024 were
 below the NYS unrestricted use soil cleanup objective.
- Polycyclic aromatic hydrocarbons for spring and fall background samples (SWSD009 and SWSD021) findings were either non-detect and/or below the NYS unrestricted use soil cleanup objective. Samples collected (spring and fall) at locations WDD 1, 2 and 3 and SWSD 010, 011, 022, 023 and 024 were all non-detect with the following exception: WDD3 (fall) had exceedances of the NYS unrestricted use soil cleanup objective for the following PAHs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene and indeno(1,2,3-cd)pyrene. Benzo(a)pyrene also exceeded the NYS restricted use, industrial objective. These elevated readings may have been attributed to the extensive use of yard/landscaping equipment with two-stroke engines used to clear high vegetation and trees on the site's outer fence perimeter for the purpose of site security.
- Background samples (SWSD009 and SWSD021) for polychlorinated biphenyls (PCB) were non-detect or

below the NYS unrestricted use soil cleanup objective. Samples collected at locations WDD 1, 2 and 3 and SWSD 010, 011, 022, 023 and 024 were mostly non-detect or less than the NYS unrestricted use soil cleanup objective with the following exceptions: SWSD011 field duplicate spring sample finding had a concentration of 114 μ k/kg, which exceeds NYS unrestricted use soil cleanup objective of 100 μ k/kg for Aroclor-1254. SWSD024 (spring finding) had a concentration of 101 μ k/kg, this is above the NYS unrestricted use soil cleanup objective of 100 μ k/kg for Aroclor-1242. Both findings are less than the NYS restricted use, industrial objective, of 25,000 μ g/kg.

Background samples (SWSD009 and SWSD021) for pesticides were all non-detect for spring and fall.
 Samples collected at locations WDD 1, 2 and 3 and SWSD 010, 011, 022, 023 and 024 were non-detect for the spring and fall.

5.6 Groundwater

The locations of environmental surveillance groundwater monitoring wells at NFSS are shown in Figure 2. Onsite background information, descriptions of activities performed under the groundwater surveillance program, and surveillance results are discussed below.

5.6.1 Groundwater Flow System

5.6.1.1 Natural System

Four unconsolidated geologic units and one bedrock unit are identified in the subsurface at the site. These units are consolidated into the following three principle hydrostratigraphic zones (listed top to bottom): the Upper Water Bearing Zone (surface fill and an Upper Brown Clay Till Unit that contains sand lenses), an aquitard or confining unit (Glacio-Lacustrine Clay and Middle Silt Till Units), and the Lower Water Bearing Zone (Alluvial Sand and Gravel, Basal Red Till, and Upper Queenston Formation). See Figure-7: Schematic of Conceptualized Hydrostratigraphy in Appendix A, page F-7. Groundwater at the NFSS primarily flows in two deposits: the upper water-bearing zone in the surficial brown clay till unit and the lower water-bearing zone in the combined sand and gravel unit, red till unit, and weathered portion of the Queenston Shale bedrock. As stated in Section 3.0, the glacio-lacustrine clay aquitard that hydraulically separates the upper and lower water-bearing zones also minimizes transport between the two zones. Regional groundwater flow in both the upper and lower groundwater systems is to the northwest towards Lake Ontario, although flow in the upper zone is interrupted by surface-water drainage ditches of significant depth and vegetative growth.

Surface drainage from the site originally entered Four Mile, Six Mile, and Twelve Mile Creeks, which all flow northward to Lake Ontario. However during the 1940s, drainage modifications routed surface water to a scries of ditches that eventually coalesce into the central drainage ditch north of the site. These ditches have variable depths that seasonally influence groundwater flow in the upper water-bearing zone on the site. The current discharge from the central drainage ditch is routed to Four Mile Creek.

5.6.1.2 Water Level Measurements

Groundwater levels were measured in ninety-one (91) NFSS wells with an electronic depth-to-water meter.

Potentiometric data were recorded from forty-nine (49) wells in the upper ground water system and forty-two (42) wells in the lower groundwater system (including 6 bedrock wells).

Figures 3 through 6 in Appendix-A show the piezometric surfaces and groundwater flow directions in the upper and lower units during seasonally high and low groundwater conditions. Groundwater contours initially are hand drawn to account for site features (e.g., the IWCS and drainage ditches) and then digitized using ArcGIS® to present the groundwater flow directions and gradients in report-quality graphics.

The screened intervals for wells completed in the upper groundwater zone range from 4.7 to 27.6 ft (1.4 to 8.4 meters) below ground surface, while screened intervals for wells completed in the lower groundwater zone range from 22.4 to 104.5 ft (6.8 to 31.9 meters) below ground surface. The ninety-one groundwater monitoring wells are located throughout the NFSS and provide significant areal coverage for groundwater flow characterization. The monitored (sampled) subset of eighteen (18) wells provide adequate data to assess the IWCS performance and monitor specific areas of concern identified by the RI (Appendix A, Figure 2).

In the upper water-bearing zone, the depth to water ranged from 0.42 to 18.39 ft (0.13 to 5.61 meters) below ground surface during 2008. The quarterly water level fluctuations in the upper water-bearing zone averaged 1.68 ft (0.51 meters) and showed high and low elevations during the February and October measurements, respectively. In the lower groundwater system, the depth to water ranged from 3.02 to 12.58 ft (0.92 to 3.83 meters) below ground surface during 2008. Quarterly water-level fluctuations in the lower groundwater system averaged 0.37 m (1.21 ft) and showed high and low elevations during the August and February measurements respectively.

Groundwater elevations measured quarterly during 2008 in the upper water-bearing zone show a high condition occurred on February 19, 2008, and a low condition on October 21, 2008. The high-water elevations in the upper system ranged from 297.61 to 318.62 ft (90.71 to 97.12 meters) above mean sea level, whereas the low-water condition ranged from 299.22 to 318.61 ft (91.20 to 97.11 meters). Groundwater elevations in the lower water-bearing zone indicate a seasonal high occurred on August 25, 2008, and a seasonal low occurred on February 19, 2008. The high-water elevation in the lower system ranged from 308.82 to 316.62 ft (94.13 to 96.51 meters) above mean sea level, whereas the low-water condition ranged from 304.37 to 314.27 ft (92.77 to 95.79 meters). See Figures 3 through 6 in Appendix A for a graphical representation of these data, interpreted groundwater flow directions, and conditions evident from local clay mining west of the NFSS.

Head fluctuations in both the upper and lower water-bearing zones were less in 2008 than 2007 due to abundant summer rains that lessened summer-season soil-moisture stresses on the upper zone groundwater. Precipitation data recorded at the Niagara Falls International Airport indicate that from May 2008 through October 2008 precipitation was 19.82 inches or 1.71 inches greater than the norm for this period. Similar trends are likely for the NFSS, as evident in the water level data. Even though 2008 was a wetter summer than 2007, several wells appeared dry or reflected local dryness during the sounding periods: 215A (August/October), 810A (February/October), OW12B (October), 314 (dry all year), and 422 (dry all year). Wells 314 and 422 indicate that they were screened too high (within the vadose zone) and are routinely dry, whereas wells 215A, 810A, and OW12B simply exhibit large head fluctuations throughout the screened interval.

Water-level data indicate that the upper water-bearing zone responds more rapidly to the recharge and

discharge seasons (wet and dry periods) than the lower confined groundwater system due to the intervening Glacio-Lacustrine Clay and Middle Silt Till Units (as a regional aquitard). The two water-bearing zones demonstrate hydraulic separation through independent water-level responses, as exemplified by the temporally different seasonal high and low conditions. The high-stress (dry) summer conditions lower water levels in the upper water-bearing zone (i.e., October was the low-water period in the upper water-bearing), although the lower water-bearing zone lags by several months due to the separation (i.e., February was the low-water period for the lower water-bearing zone). The three-month time lag between head extremes in 2007 was nearly six months in 2008, which indicates the aquitard restricts vertical flow between the units, even where thin (e.g., a 2.5-foot thickness at wells OW10A and OW10B still produces up to 5.59 ft (1.7 meters) of head differential.

Vertical gradients derived from heads in monitoring well pairs vary with seasonality. Flow from the upper zone to the lower zone was dominant during the first and second quarterly measurements. However, during the third and fourth quarters, the majority of elevations in the lower system were greater than those measured in the upper system, albeit very slight in some cases. This seasonal variation in the direction and magnitude of vertical gradients will affect vertical flow between water-bearing zones and potentially long-term transport of contaminants between water-bearing zones, thereby maintaining the upper zone as the primary transport pathway at the NFSS. While groundwater flow is primarily horizontal in these upper and lower zones, the upward vertical gradients help impede the potential for downward migration of contaminants into the lower zone from possible contaminant sources in the upper zone.

5.6.1.3 Groundwater Flow

Water-bearing hydrostratigraphic zones in the layered glacial sediments underlying the NFSS include the upper surficial clay till unit, the lower alluvial sand and gravel, and the weathered bedrock unit (i.e., approximated as the upper 10 ft or 3 meters of bedrock). Groundwater-level data indicate that the intervening glaciolacustrine clay unit hydraulically separates the upper clay till unit from the lower sand and gravel unit; this glaciolacustrine clay is present across the entire site. The average horizontal gradients in the upper system range between 0.0026 and 0.01 ft/ft and are dependent on seasonality and regional to local flow conditions (i.e., flow across the site versus along the IWCS to the central drainage ditch).

Local groundwater flow in the upper water-bearing zone is interrupted by the central drainage ditch throughout the year, whereas smaller tributary ditches appear to have a lesser influence on site-wide groundwater flow. The northwesterly regional flow gradient across the site is presented to illustrate the potential for long-term (and larger scale) flow and transport directions from the site.

Localized on-site flow towards the central drainage ditch east of the IWCS is consistently apparent due to the unique flow boundary conditions in this area (i.e., IWCS cut-off wall, low recharge due to a sloped [well drained] land surface, and proximate ditch). Other site ditches show various degrees of influence on groundwater levels, which are accounted for on the potentiometric map, where data allow. The drainage ditches at the NFSS have accumulated sediment and organic matter since their original installation (up to 10-ft or 3 meters deep); consequently they do not fully penetrate the upper water-bearing zone and some groundwater is assumed to pass beneath the ditches during high-water periods. Water-level contours may be drawn through the ditches to reflect some groundwater flow beneath them (where data allow). During the

summer, vegetation within the ditches will evapotranspire groundwater and promote lower local heads near site ditches.

The lower groundwater system generally shows a northerly to northwesterly flow under gradients of 0.0022 to 0.003 ft/ft. This flow vector has been affected by the excavation of a clay borrow operation west of the site (mining the Glaciolacustrine Clay), where local surface-water recharges the lower water-bearing zone in the spring, which has caused the normally northwestern gradients to have a northerly component during the highwater period (May 2008). The local groundwater low underlying the IWCS is likely a combined artifact of impressed heads to the west, variations in the thickness of the gray clay aquitard and underlying hydrostratigraphic layers, and topography of the Queenston Shale. The October potentiometry in Figure 5 shows an alleviation of the impressed heads to the west and a return to normal flow westerly directions, which may be due to lower rainfall and evaporative losses at the nearby clay pit.

A groundwater flow velocity of 38 cm/y (15 in/y) was estimated at NFSS in 1994 (USDOE 1994b). More recent RI modeling estimated an average flow velocity of 28 cm/y (11 in/yr) in off-site areas; this value is based upon the regional gradients and variable hydraulic conductivities presented in USACE (2008). Such velocities will vary based on local conditions (i.e., the spatial scale of hydraulic conductivity and gradient estimations used). These velocity values do not represent contaminant migration rates since contaminant-soil partitioning retards (or slows) the rate of contaminant flow (transport) with respect to groundwater flow. This partitioning causes contaminants to adsorb, or bind, to local fine-grained soils in the upper water-bearing zone and aquitard sediments.

5.6.2 Groundwater Analytical Results

5.6.2.1 Field Parameters

Table 5, Appendix A summarizes field measurements (temperature, pH, specific conductance, oxidation-reduction potential, and turbidity) for 2008 environmental surveillance sampling, including those wells added to the ESP for 2008.. These measurements represent water conditions at the time of sampling.

5.6.2.2 Water Quality Parameters

At NFSS, water quality in the upper water-bearing zone is indicative of low recharge to a hydraulically slow flow system, which produces poor-quality (near-saline) groundwater containing high total dissolved solids and calcium/magnesium sulfates. Water quality in the lower water-bearing zone is poor due to high total dissolved solids produced by long residence times associated with long flow paths from aerial recharge zones. It is likely that the lower groundwater system receives recharge along the base of the Niagara Escarpment, situated approximately 3.2 km south of the site (USDOE 1994b) and, to a lesser extent, via downward flow from the upper unit during spring recharge. Water quality parameter data for 2008 spring and fall groundwater are provided in Tables 10 and 11, Appendix A.

Analytical spring and fall results for sodium and sulfate were consistently above the drinking water standards in both the up-gradient (background) and down-gradient samples. These values indicate that groundwater in the area is naturally saline and confirm the findings of regional to local studies that state groundwater quality is poor near the site because of high mineralization (La Sala 1968; Wehran 1977; Acres American 1981).

Groundwater at NFSS is not used as a public water supply, although the comparison to the drinking water standard will continue to be used to provide a conservative evaluation of groundwater analytical results.

For comparative purposes, the NYSDEC Class GA water quality standards are utilized when primary Federal standards are not available.

Sodium samples collected at the original surveillance seven wells (A45, A50, BO2W20S, OW04B, OW06B, OW13B, OW15B and OW17B) had detects in all seven, including the background well, with all concentrations consistently greater than the NYSDEC Class GA groundwater quality standard of 20,000 μ/L for sodium.

Sodium concentration ranges in GW for 2008

Spring	58,800 - 80,200 μg/L
Fall	59,600 – 72,800 μg/L

• Sulfate samples collected at the eighteen surveillance wells had detects in all with concentrations greater than the NYSDEC Class GA groundwater quality standard for sulfate of 250 mg/L.

Sulfate concentration ranges in GW for 2008

Spring	286 – 4,900 mg/L
Fall	348 – 1,030 mg/L

• Fluoride samples collected at all eighteen surveillance wells had detects. All being below the NYSDEC Class GA groundwater quality standard of 1.5 mg/L for fluoride with the exception of GW well 415A for the spring at 2.980 mg/L and fall finding at 3.490 mg/L.

Fluoride concentration ranges in GW for 2008

Spring	0.125 – 2.980 mg/L
Fall	0.117 - 3.490 mg/L

5.6.2.3 Groundwater - Radioactive Constituents

In 2008, as mentioned in section: 1.2 ESP Enhancements for 2008, the fall sampling event was added in 2008 making sampling biannual (spring and fall) for groundwater. In 2008, unfiltered groundwater samples collected for the spring and fall sampling events from seventeen groundwater monitoring wells (16-upper water-bearing zone and 1- lower water-bearing zone) were analyzed for uranium-234, uranium-235, and uranium-238. Eight wells in the upper water-bearing zone, from the previous surveillance program (1997-2008), were analyzed for radium-226, radium-228, thorium-230, thorium-228 and thorium-232. See Table 1b (Appendix A, page T-8) radiological parameters for those ESP groundwater wells, including those wells added to the ESP added in 2008. Environmental surveillance analytical results for radioactive constituents in groundwater are presented in Appendix A, Table 10 and 11. See Figures 23 through 26 for trended data collected during spring sampling from the years 1997 to 2008.

Combined concentrations of radium-226 and radium-228 at NFSS are below the SDWA MCL of 5 pCi/L.

Thorium-230 and thorium-232 concentrations are below USDOE DCGs (100 pCi/L and 50 pCi/L, respectively) and the SDWA MCL of 15 pCi/L, adjusted gross alpha MCL, for combined thorium-230 and thorium-232 in drinking water. The 2008 total uranium analytical results are consistent with the historical spring sampling results.

Total uranium concentrations are below the SDWA MCL 30 μg/L or 27 pCi/L for wells: BO2W20S, A50, OW13B, OW06B, OW15B, OW17B, BH49A, OW04A, OW18B, and 415A. The following wells exceeded SDWA MCL of 30 μg/L or 27 pCi/L: A45, OW04B, 313, 302A, 505, A42, OW11B. Historical (for spring sampling) Technical Memorandum results are consistent with the 2008 findings and indicate the groundwater is contaminated from legacy residue/waste handling and/or surface-storage practices. Declining to dynamic steady-state (i.e., annually fluctuating about a mean) uranium trends in wells surrounding the IWCS also are indicative of attenuating legacy sources (i.e., surface stored wastes) that contaminated soil and groundwater prior to the IWCS construction. Since 1992, total uranium concentrations in all sampled wells have been less than (background not subtracted) the USDOE DCG of 600 pCi/L for water.

All analytical results for radium-226, radium-228, thorium-230, thorium-232, and total uranium in groundwater were well below the USDOE DCGs. At all sampled locations, results were less than the USDOE guideline for mixtures of radionuclides (using the sum-of-the-ratios method). Current analytical results (background not subtracted) are summarized below.

Note: Groundwater at NFSS is not a drinking water source. Samples from all seventeen wells have unfiltered results for comparison purposes.

• The 2008 total (unfiltered) analytical results for radium-226 were:

Ra-226 Findings (pCi/L) in 2008

Location	Spring	Fall
BO2W20S (Background)	Non-Detect (ND)	Non-Detect (ND)
Range of 7 wells sampled	Non-Detect - 0.490	Non-Detect - 1.050

The USDOE DCG for radium-226 is 100 pCi/L above background and the SDWA MCL for combined radium-226 and radium-228 is 5 pCi/L. Total radium (Ra-226 and Ra-228) concentrations in groundwater are below the SDWA limit of 5 pCi/L and the USDOE DCG of 100 pCi/L, as shown in Figure 23 from 1997 to 2008 (spring sampling results).

• The 2008 total (unfiltered) analytical results for radium-228 were:

Ra-228 Findings (pCi/L) in 2008

Location	Spring	Fall
BO2W20S (Background)	Non-Detect (ND)	1.090
Range of 7 wells sampled	Non-Detect – 0.826	Non-Detect - 1.080

The USDOE DCG for radium-228 is 100 pCi/L above background and the SDWA MCL for combined radium-226 and radium-228 is 5 pCi/L. Total radium (Ra-226 and Ra-228) concentrations in groundwater

are below the SDWA limit (5 pCi/L) and the USDOE DCG (100 pCi/L), as shown in Figure 23 from 1997 to 2008 (spring sampling results).

• The 2008 total (unfiltered) analytical results for thorium-228 were:

Th-228 Findings (pCi/L) in 2008

Location	Spring	Fall	
BO2W20S (Background)	Non-Detect (ND)	Non-Detect (ND)	
Range of 7 wells sampled	Non-Detect - 0.309	Non-Detect - 0.050	

The USDOE DCG for thorium-228 is 400 pCi/L above background and the SDWA MCL for thorium-228, thorium-230 and thorium-232 is 15 pCi/L. Thorium-228 concentrations in groundwater are below the SDWA limit of 15 pCi/L and the USDOE DCG of 400 pCi/L

• The 2008 total (unfiltered) analytical results for thorium-230 were:

Th-230 Background Findings (pCi/L) in 2008

Location	Spring	Fall	
BO2W20S (Background)	Non-Detect (ND)	Non-Detect (ND)	
Range of 7 wells sampled	Non-Detect - 0.490	Non-Detect - 1.050	

The USDOE DCG for thorium-230 is 300 pCi/L above background and the SDWA MCL for thorium-230 and thorium-232 is 15 pCi/L, adjusted gross alpha MCL (2008 background levels was non-detect). Thorium-230 concentrations in groundwater are below the SDWA limit of 15 pCi/L and the USDOE DCG of 300 pCi/L, as shown in Figure 24 from 1997 to 2008 (spring sampling results).

• The 2008 total (unfiltered) analytical results for thorium-232 were:

Th-232 Findings (pCi/L) in 2008

Location	Spring	Fall
BO2W20S (Background)	Non-Detect (ND)	Non-Detect (ND)
Range of 7 wells sampled	All Non-Detect	All Non-Detect

The USDOE DCG for thorium-232 is 50 pCi/L above background and the SDWA MCL for thorium-230 and thorium-232 is 15 pCi/L, adjusted gross alpha MCL. Thorium-232 concentrations in groundwater are below the SDWA limit of 15 pCi/L and the USDOE DCG of 50 pCi/L, as shown in Figure 25 from 1997 to 2008 (spring sampling results).

The 2008 total (unfiltered) analytical results for total uranium were:

Total Uranium Findings (pCi/L) in 2008

Location	Spring	Fall
BO2W20S (Background)	9.540	8.849
Range of 15 wells sampled in upper water-bearing zone	5.023 - 253.680	5.770 – 175.970
Lower water-bearing zone sample (OW04A)	0.929	2.085

The USDOE DCG for total uranium is 600 pCi/L above background. The USEPA National Primary Drinking Water Regulation for Radionuclides (Final Rule – effective 2003) states the SDWA MCL for total uranium is 30 μ g/L or 27 pCi/L. As shown below, seven wells exceed this limit for unfiltered groundwater samples.

Total Uranium SWDA Exceedances of 30 µg/L or 27 pCi/L in 2008

Location	Spring		Fall		
	pCi/L	μg/L	pCi/L	μg/L	
A45	28.699	31.888	33.740	37.489	
OW04B	48.500	53.889	39.489	43.877	
313*		38.474	39.053	43.392	
505*		30.229	25.303	28.114	
302A*	99.680	110.756	101.380	112.644	
A42*	61.880	68.756	78.820	87.578	
OW11B* 253.680		281.867	175.970	195.522	

^{*}Added to the ESP in 2008.

As discussed previously, the above wells are in areas that have been affected by past storage and handling of materials at NFSS. Total uranium concentrations in groundwater are below the USDOE DCG of 600 pCi/L, as shown in Figure 26. <u>Note</u>: The total uranium MCL of 30 µg/L is for comparative purposes only and includes background.

5.6.2.4 Groundwater - Chemical Constituents

Groundwater at NFSS is not used as a public drinking water supply, although sampling results are compared to the SDWA MCLs and New York State Water Quality Regulation Class GA standards as a conservative baseline. See Table 1b (Appendix A, page T-8) analytical parameters for those ESP groundwater wells. The 2008 environmental surveillance analytical results for metals in groundwater are presented in Tables 10 and 11, Appendix A, and discussed below.

5.6.2.4.1 Metals

Mctals (expanded parameter added to the existing ESP groundwater wells) that exceed the above mentioned comparison criteria for metals are discussed below.

- Sodium exceedance is covered in Section 5.6.2.2 Water Quality Parameters.
- Metals samples collected at the original surveillance seven wells (A45, A50, BO2W20S, OW04B, OW06B, OW13B, OW15B and OW17B) had exceedances in all seven for iron including the background well. All had concentrations consistently greater than the SDWA (secondary) MCL and NYSDEC Class GA groundwater quality standard of 300 μg/L for iron with the exception of well OW17B (fall sampling).

Iron concentration ranges in GW in 2008

 Spring	390 - 2,200 μg/L
Fall	237 - 2,450 μg/L

5.6.2.4.2 Volatile Organic Compounds (VOC)

The 2008 environmental surveillance analytical results for VOCs in groundwater were taken for the purpose of monitoring two wells that had VOC findings in the RI. The two wells, added to the ESP in 2008, are in areas that have been affected by past processing and handling of materials at NFSS. Analytical results for VOCs are presented in Tables 10 and 11, Appendix A, and discussed below.

- Well 201A findings were all non-detect for VOCs for both the spring and fall sampling rounds.
- Well 415 had exceedances of SDWA MCLs and New York State Water Quality Regulation Class GA standards for the spring and fall sampling rounds.

Well 415 VOC findings (µg/L) in 2008

			Federal	
			Regulations	NY State Water
VOC Compound	Spring	Fall	MCLs	Quality Stds.
Acetone	201	ND at 300	Not Established	Not Established
cis-1,2-Dichloroethylene	9,650	11,200	70	5
Tetrachloroethylene	29,800	22,800	5	5
trans-1,2-Dichloroethylene	104	139	100	5
Trichloroethylene	11,500	10,200	5	5
Vinyl chloride	513	763	2	2

6.0 CONCLUSIONS

6.1 External Gamma Radiation

For 2008 the calculated hypothetical doses from external gamma radiation are 0.005 mrcm for the nearest resident and 0.003 mrcm for the nearest off-site worker.

6.2 Radon Gas

Results of the 2008 radon gas surveillance program indicate radon gas emissions are comparable to background. The radon gas concentrations at the site were consistently low (non-detect to 0.7 pCi/L, including background [Appendix A, Table 3]). All radon gas concentration analytical results at NFSS were well below the USDOE limit for radon-222 of 3.0 pCi/L above background (Appendix A, Table 3).

6.3 Radon-222 Flux

The 2008 radon-222 flux measurements were indistinguishable from background. Results ranged from non-detect to 0.23490 pCi/m²/s, with an average (of detects and non-detects) result of 0.05368 pCi/m²/s (Appendix A, Table 4). The average value is less than one percent of the standard of 20 pCi/m²/s specified in 40 CFR Part 61, Subpart Q of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), demonstrating the effectiveness of the containment cell design and construction in mitigating radon-222 migration.

6.4 Airborne Particulate Dose

The 2008 airborne particulate annual dose from the wind erosion of soil to a hypothetical maximally exposed individual is calculated at 0.00067 mrem (Appendix C, FUSRAP CY2008 NESHAP Annual Report for Niagara Falls Storage Site (NFSS), section 4.3). The hypothetical annual dose to the individual can be compared to the 10 mrem/year dose standard in 40 CFR Part 61, Subpart H of NESHAPs. The 2008 hypothetical airborne particulate annual collective dose to the population within an 80 km radius of the site is calculated at 0.047 person-rem (Appendix C, FUSRAP CY2008 NESHAP Annual Report for Niagara Falls Storage Site (NFSS), section 5.1).

6.5 Cumulative Dose from External Gamma Radiation and Airborne Particulates

The CY 2008 maximum annual total external gamma radiation and airborne particulate dose to a hypothetical individual is 0.006 mrem [0.005 + 0.00067 (assumes same individual receives both maximum doses from external and airborne dose pathways)], Appendix B, CY2008 Calculation Of External Gamma Radiation Dose Rates For Niagara Falls Storage Site (NFSS), Section 4.2 and Appendix C, FUSRAP CY2008 NESHAP ANNUAL REPORT FOR NIAGARA FALLS STORAGE SITE (NFSS), Section 4.3, respectively. This value can be compared to the USDOE limit of 100 mrem/year and the US average per capita background dose of approximately 620 mrem/year.

6.6 Surface Water

In 2008, on-site radionuclide concentrations in surface water samples were consistent with radiological historical results that indicate no evidence of a release. Chemical findings had one exceedance for sampling location SWSD010 (fall sampling) for VOC-tetrachloroethylene at 7.91 μ g/L which exceeds the SDWA and state MCL (5 μ g/L).

6.7 Sediment

In 2008, on-site radionuclide concentrations in sediment samples were consistent with historical radiological results that are comparable to background and indicate no evidence of a release. Metals (copper, lead, mercury, nickel and zinc) had exceedances of the NYS unrestricted use of soil cleanup objective at several locations, but not that of the NYS restricted use soil cleanup objectives (industrial). All volatile organic compounds (VOC) samples were below that of the NYS unrestricted use of soil cleanup objective. One PAH sample location, from the fall sampling event, had an exceedance of NYS unrestricted use of soil cleanup objective for several PAHs. That exceedance was less than the NYS restricted use soil cleanup objectives (industrial) with the exception of PAH benzo(a)pyrene. Two polychlorinated biphenyls (PCB) were slightly elevated above the NYS unrestricted use of soil cleanup objective at two separate locations, but below that of the industrial-use objective.

6.8 Groundwater

Current and past on-site radionuclide concentrations in groundwater samples from the upper water-bearing zone indicate total uranium levels in excess of background; total uranium levels in several wells exceed the SDWA MCL. Wells with the most elevated uranium levels, as identified during the RI, were selected for inclusion into the environmental surveillance program, beginning in 2008, in addition to those historically sampled as part of the program. Historic and RI findings indicate that the most likely source of these elevated uranium levels is past radioactive waste storage practices as they are limited in extent, do not indicate a continuously increasing trend (see Figure 26), and are generally coincident with historical use areas. Uranium levels in groundwater will continue to be monitored as part of the environmental surveillance program and the on-going CERCLA process will evaluate the extent of uranium in groundwater in excess of background levels and applicable regulatory limits throughout NFSS.

7.0 REFERENCES

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APPENDIX A

NFSS 2008 ENVIRONMENTAL SUREVELLANCE TECHNICAL MEMORANDUM TABLES AND FIGURES

Environmental Monitoring at NFSS

This appendix documents the results of environmental monitoring activities conducted in 2008 and supplements the environmental surveillance information included in the body of this technical memorandum. These activities are described to present a more complete picture of the site activities during the year and to provide technical reviewers with sufficient information to determine how much these activities influenced site conditions and ultimately the environmental surveillance program.

Two distinct activities compose the FUSRAP monitoring program at NFSS: environmental monitoring and environmental surveillance. Environmental monitoring consists of measuring the quantities and concentrations of pollutants in solid wastes, liquid effluents, and air that are discharged directly to the environment from on-site activities. Environmental surveillance documents the effects, if any, of USACE activities on on-site and off-site environmental and natural resources. At FUSRAP sites, because there are typically no on-site waste treatment facilities with routine point discharges, the monitoring program consists primarily of environmental surveillance (USACE 2008). The Environmental Surveillance Technical Memorandum specifically reports the results of routine environmental surveillance sampling and, at applicable sites, includes information about routine environmental monitoring (storm water discharges and radon flux measurement).

From November 1999 to October 2003, surface water, sediment, soil, groundwater, and other media was sampled to support a three-phased Remedial Investigation (RI) at NFSS.

References

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FUSRAP NIAGARA FALLS STORAGE SITE

2008

TABLES

ENVIRONMENTAL SURVEILLANCE TECHNICAL MEMORANDUM



US Army Corps of Engineers ® Buffalo District

Table A.1

(Section 1.2 Unit Conversions)

Units of Measurement and Conversion Factors - Dose and Radioactivity

Parameter	Conventional	SI Units	Conversion Factor
Dose	millirem (mrem)	milliSievert (mSv)	$1 \overline{\text{mrem}} = 0.01 \text{ mSv}$
Activity	picoCurie (pCi)	becquerel (Bq)	1 pCi = 0.037 Bq

Table A.2

I RUIC ALE			
Units of Measuremen	nt and Conversion Factors	- Mass, Length, Are	a, and Volume
Parameter	English Units	SI Units	Conversion Factor
Mass	Ounce (oz)	gram (g)	1 g = 0.035 oz
	Pound (lb)	Kilogram (kg)	1 kg = 2.2046 lb
Length	Inch (in.)	centimeter (cm)	1 cm = 0.394 in.
	foot (ft)	meter (m)	1 m = 3.281 ft
	mile (mi.)	kilometer (km)	1 km = 0.621 mi.
Area	Acre	hectare (ha)	1 ha = 2.47 acres
Volume	Fluid ounce (fl.	Milliliter (mL)	1 mL = 0.0338 fl. oz.
	gallon (gal)	liter (L)	1 L = 0.264 gal
	Cubic yard (yd ³)	cubic meter (m ³)	$1 \text{ m}^3 = 1.30795 \text{ yd}^3$

Table B
(Section: 2.1 External Gamma Radiations and Air (Radon Gas and Airborne Particulates))
Summary of Radiological Standards and Guidelines for External Gamma Radiation and Air

Parameter	USDOE Order 5400.5 ^a	Other Federal Standard or Guidelines		
Radon-222 flux	20 pCi/m²/s	20 pCi/m ² /s ^b		
Radon-222	3.0 pCi/L°	-		
Radionuclide emissions (airborne particulates and radioactive gases excluding radon-220 and radon-222)	10 mrem/y	10 mrem/y ^b		
Effective dose equivalent (total contribution from all sources°)	100 mrem/y	100 mrem/y ^d		

- a. Guidelines provided in the USDOE Order are above background concentrations or exposure rates.
- b. Federal (USEPA) Standard from 40 CFR, Part 61, subparts H (radionuclide emissions) and Q (radon-222 flux).
- c. Contributing sources at NFSS consist of external gamma radiation exposure, radionuclide emissions listed above, and ingested radionuclides in water and soil/sediment (listed in the following table).
- d. Federal (USNRC) Standard 10 CFR 20
- e. The guideline of 3.0 pCi/L is based on an amual average value at or above any location outside of the facility site.

Table C (Section: 2.2.2 Safe Drinking Water Act (SDWA))

Summary of Radiological Stand	lards and Guidelii	nes for Water and Sc	ediment

Parameter	USDOE DCG ^a for Water ^b	Other Federal Standards	USDOE Guideline Limit for Residual Radioactivity in Surface Soil ^{c,d}
Total uranium	600 pCi/L	30 μg/L °	90 pCi/g
Thorium-228	400 pCi/L	15 pCi/L ^f	5 pCi/g
Thorium-232	50 pCi/L	15 pCi/L ^f	5 pCi/g
Thorium-230	300 pCi/L	15 pCi/L ^f	5 pCi/g
Combined Radium-226&228	100 pCi/L	5 pCi/L °	5 pCi/g

- a. USDOE derived concentration guide USDOE Order 5400.5) for drinking water. Groundwater at NFSS is not a drinking water source. The above concentration is for comparative purposes only.
- b. Surface water and groundwater (non-drinking water values); criteria represent concentrations above background. If a mixture of radionuclides is present, the sum of the ratios of each isotope to its respective DCG must be less than one.
- c. Above background concentrations in soil, averaged over the topmost 15-cm of soil.
- d. There are no standards for sediment; therefore, the USDOE residual (radium and thorium) and site-specific (uranium) surface soil cleanup guideline criteria are used as a basis for evaluating analytical results for sediment. If a mixture of the radionuclides is present in soil, then the sum of the ratios of the concentration of each isotope to the allowable limit must be less than one. This guideline applies for total uranium in natural isotopic abundance.
- e. This regulation for uranium of 30 µg/L became effective December 8, 2003 –National Primary Drinking Water Regulations; Radionuclides; Final Rule (Federal Register- December 7, 2000). Current SDWA MCL for the combined concentration of radium-226 and radium-228 in drinking water is 5 pCi/L (40CFR141.1) Groundwater at NFSS is not a drinking water source. The above concentration is for comparative purposes only.
- f. "Gross alpha activity MCL is 15 pCi/L, including the contribution from radium-226 but excluding the contributions from radon and uranium National Primary Drinking Water Regulations; Maximum contaminant levels for radionuclides; (40CFR141.66-Subpart G (c))

Table D
State and Federal Comparison Values for Groundwater, Surface Water and Sediment

			Water			Sediment	b
Parameter ^c	Parameter ^c Analyte		Federal Regulations MCLs*	NY State Water Quality Stds.*	Units ^d	NY State- Unrestricted Use**	NY State- Restricted Use - Industrial**
Water Quality	Alkalinity, Total as CaCO3	mg/L	500 ¹	500		NA	NA
Water Quality	Total Dissolved Solids	mg/L	NE	NE		NA	NA
						NA	NA
Anion	Chloride	mg/L	250 ¹	250		NA	NA
Anion	Fluoride	mg/L	4	1.5		NA	NA
Anion	Nitrate	mg/L	10	10		NA	NA
Anion	Nitrite	mg/L	1	1		NA	NA
Anion	Ortho-phosphate	mg/L	NE	NE		NA	NA
Anion	Sulfate	mg/L	250¹	250	0016	NA	NA
Metal	Aluminum	μg/L	50-200 ¹	NE	mg/kg	NE	. NE
Metal	Antimony	μg/L	6	3	mg/kg	NE	NE
Metal	Arsenic	μg/L	10	25	mg/kg	13	16
Metal	Barium	μg/L	2000	1000	mg/kg	350	10,000
Metal	Beryllium	μg/L	4	11:	mg/kg	7	2,700
Metal	Boron	μg/L	NE	1000	mg/kg	NE	NE
Metal	Cadmium	μg/L	5	5	mg/kg	3	60
Metal	Calcium	μg/L	NE	NE	mg/kg	. NE	NE
Metal	Chromium	μg/L	100	50	mg/kg	NE	NE
Metal	Cobalt	μg/L	NE	NE	mg/kg	NE	NE
Metal	Copper	μg/L	1300		mg/kg	50	10,000
Metal	Iron	μg/L	300 ¹	300	mg/kg	NE	NE
Metal	Lead	μg/L	15	25	mg/kg	63	3,900
Metal	Lithium	μg/L	NE	NE	mg/kg	NE	NE
Metal	Magnesium	μg/L	NE	NE	mg/kg	NE	NE
Metal	Manganese	μg/L	50 ¹	300	mg/kg	1,600	10,000
Metal	Mercury	μg/L	2	0.7	μg/kg	180 ⁴	5700 ⁴
Metal	Nickel	μg/L	NE			30	10,000
Metal	Potassium	μg/L	NE	NE	mg/kg	NE	NE
Metal	Selenium	μg/L	50	10	mg/kg	4	6,800
Metal	Silver	μg/L	100 ¹	50	mg/kg	2	6,800
Metal	Sodium	μg/L	NE	20000	mg/kg	NE	NE
Metal	Thallium	μg/L	2	NE	mg/kg	NE	NE
Metal	Vanadium	μg/L	NE	14	mg/kg	NE	NE
Metal	Zinc	μg/L	5000'	NE	mg/kg	109	10,000

Table D
State and Federal Comparison Values for Groundwater, Surface Water and Sediment

State and Fed	State and Federal Comparison Values for Groundwater, Surface Water and Sediment											
			Water ^a			Sediment ^l						
Parameter ^c Analyte		Units ^d	Federal Regulations MCLs*	NY State Water Quality Stds.*	Units ^d	NY State- Unrestricted Use**	NY State- Restricted Use - Industrial**					
			r	1	·							
VOC	1,1,1-Trichloroethane	μg/L	200	ļ		680	1,000,000					
VOC	1,1,2,2-Tetrachloroethane	μg/L	NE	1		NE	NE					
VOC	1,1,2-Trichloroethane	μg/L	5		1.00	NE	NE NE					
VOC	1,1-Dichloroethane	μg/L	NE		100	270	480,000					
VOC	1,1-Dichloroethylene	μg/L	7		100	330	1,000,000					
VOC	1,2-Dichloroethane	μg/L	5	}		20	60,000					
VOC	1,2-Dichloropropane	μg/L	5	}	μg/kg	NE	. NE					
VOC	2-Butanone	μg/L	NE	NE	μg/kg	120	1,000,000					
VOC	2-Hexanone	μg/L	NE		μg/kg	NE	NE					
VOC	4-Methyl-2-pentanone	μg/L	NE	NE	μg/kg	NE	NE					
VOC	Acetone	μg/L	NE	NE	μg/kg	50	1,000,000					
VOC	Benzene	μg/L	5	1	μg/kg	60	89,000					
VOC	Bromodichloromethane	μg/L	NE	NE	μg/kg	NE	NE					
VOC	Bromoform	μg/L	NE	NE	μg/kg	NE	NE					
VOC	Bromomethane	μg/L	NE	5	μg/kg	NE	NE					
VOC	Carbon disulfide	μg/L	NE	60	μg/kg	NE	NE					
VOC	Carbon tetrachloride	μg/L	5	5	μg/kg	760	44,000					
VOC	Chlorobenzene	μg/L	100	5	μg/kg	1,100	1,000,000					
VOC	Chloroethane	μg/L	NE	5	μg/kg	NE	NE					
VOC	Chloroform	μg/L	NE	7	μg/kg	370	700,000					
VOC	Chloromethane	μg/L	NE	5	μg/kg	NE	NE					
VOC	cis-1,2-Dichloroethylene	μg/L	70	5	μg/kg	250	1,000,000					
VOC	cis-1,3-Dichloropropylene	μg/L	NE	0.4^{2}	μg/kg	NE	NE					
VOC	Ethylbenzene	μg/L	700	5	μg/kg	1,000	780,000					
VOC	Methylene chloride	μg/L	5	5	μg/kg	50	1,000,000					
VOC	Styrene	μg/L	100	5	μg/kg	NE	NE					
VOC	Tetrachloroethylene	μg/L	5	5	μg/kg	1,300	300,000					
VOC	Toluene	μg/L	1000	5		700	1,000,000					
VOC	trans-1,2-Dichloroethylene	μg/L	100		μg/kg	190	1,000,000					
VOC	trans-1,3-Dichloropropylene	μg/L	NE	0.4^{2}	μg/kg	NE	NE					
VOC	Trichloroethylene	μg/L	5		μg/kg	470	400,000					
VOC	Vinyl chloride	μg/L	2		μg/kg	20	27,000					
VOC	Xylenes (total)	μg/L	1000	5 ³	μg/kg	260	1,000,000					

Table D
State and Federal Comparison Values for Groundwater, Surface Water and Sediment

 $Sediment^b$ Water^a Restricted Use -State Water Stds.* Inrestricted Regulations State-VY State Quality ! MCLs* > $Units^{d}$ Units^d Parameter^c Analyte PAH NE NE 20,000 1,000,000 Acenaphthene μg/L μg/kg 1,000,000 PAH NE 100,000 Acenaphthylene μg/L NE μg/kg NE 100,000 1,000,000 PAH Anthracene $\mu g/L$ NE μg/kg NE 1,000 11,000 PAH Benzo(a)anthracene NE μg/L μg/kg 1,000 0.2 1,100 PAH ND Benzo(a)pyrene μg/L μg/kg PAH Benzo(b)fluoranthene $\mu g/L$ NE NE μg/kg 1.000 11,000 1,000,000 NE 100,000 PAH Benzo(ghi)perylene μg/L NE μg/kg NE 800,000 110,000 PAHBenzo(k)fluoranthene μg/L NE μg/kg PAH ΝĒ 1,000 110,000 Chrysene $\mu g/L$ NE μg/kg PAH Dibenzo(a,h)anthracene NE 330 1,100 μg/L NE μg/kg PAH Fluoranthene μg/L NE NE μg/kg 100,000 1,000,000 Fluorene 30,000 1,000,000 PAH $\mu g/L$ NE NE μg/kg 11,000 NE 500 PAH Indeno(1,2,3-cd)pyrene $\mu g/L$ NE μg/kg PAH NE 12,000 1,000,000 Naphthalene μg/L NE μg/kg 1,000,000 100,000 PAH Phenanthrene μg/L NE NE μg/kg PAH NE NE 100,000 1,000,000 Pyrene $\mu g/L$ μg/kg 0.5 0.09 25,000 PCB Aroclor-1016 100 μg/L μg/kg 0.09^4 25,000 PCB Aroclor-1221 0.5 μg/kg 100 μg/L 0.5 0.09° 25,000 PCB Aroclor-1232 100 μg/L μg/kg 0.5 0.09 25,000 PCB Aroclor-1242 100 μg/L μg/kg 25,000 PCB 0.5 0.09° 100 Aroclor-1248 μg/kg μg/L PCB Aroclor-1254 0.5 0.09^4 100 25,000 $\mu g/L$ μg/kg 0.5 0.09 PCB Aroclor-1260 $\mu g/L$ μg/kg 100 25,000 180,000 Pesticide 4.4'-DDD μg/L NE 0.3 μg/kg 3.3 4,4'-DDE NE 0.3 3.3 120,000 Pesticide $\mu g/L$ μg/kg 4,4'-DDT 0.2 94,000 NE 3,3 Pesticide μg/L μg/kg NE ND 1,400 Aldrin Pesticide μg/L μg/kg NE 0.01 20 6,800 Pesticide alpha-BHC μg/L μg/kg 47,000 Pesticide alpha-Chlordane μg/L NE NE μg/kg 94 14,000 NE 36 Pesticide beta-BHC 0.04 μg/kg μg/L 40 1,000,000 delta-BHC Pesticide μg/L NE 0.4 μg/kg Dieldrin NE 0.001 2,800 Pesticide μg/kg μg/L $2,400^{\circ}$ 920,000 Pesticide Endosulfan I NE NE μg/L μg/kg $920,000^{3}$ Pesticide Endosulfan II μg/L NE NE μg/kg 2.400° 2.400° 920,000^s Endosulfan sulfate NE NE Pesticide μg/L μg/kg 410,000 Endrin ND 14 Pesticide μg/L μg/kg NE NE NE Endrin aldehydc Pesticido μg/L μg/kg NE NE NE Pesticide Endrin ketone $\mu g/L$ μg/kg 0.2 100 23,000 Pesticide gamma-BHC (Lindane) μg/L 0.5 μg/kg NE NE NE NE Pesticide gamma-Chlordane μg/L μg/kg 29,000 Pesticide Heptachlor 0.4 0.4 μg/kg 42 μg/L Pesticide Heptachlor epoxide 0.2 0.3 NE NE μg/L μg/kg 40 NE Methoxychlor μg/L 35 NE Pesticide μg/kg 0.06 NE NE Pesticide Toxaphene μg/L μg/kg

Table D
State and Federal Comparison Values for Groundwater, Surface Water and Sediment

			Water ^a		Sediment ^b		
Parameter ^c	Analyte	Units ^d	Federal Regulations MCLs*	NY State Water Quality Stds.* pun	NY State- Unrestricted Use**	NY State- Restricted Use - Industrial**	

a. Surface Water and Groundwater comparison criteria.

Surface Water and Groundwater at NFSS is not a drinking water source.

The above federal and state regulation concentrations are for comparative purposes only.

*Federal Regulations:

National Primary Drinking Water Regulations 40CFR141.62&63

*New York State:

New York State Standards - Water Quality Criteria (class GA) per 6 NYCRR, Part 703.

NE - Not Established

Note:

NA - Not applicable

- 1. National Secondary Drinking Water Regulations (40CFR143.3)
- 2. Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.
- 3. Not a sum total for Dimethyl Benzene (Xylene), applies to 1,2--Xylene, 1,3-Xylene and 1,4-Xylene individually.

b. Sediment comparison criteria:

Values are provided for comparative purposes only. ARARs and media-specific cleanup goals will be evaluated independently and presented in future CERCLA decision documents that will be available for public comment.

**New York State:

6 NYCRR PART 375

NY State- Unrestricted Use Soil Cleanup Objectives Table 375-6.8(a)

NY State- Restricted Use Soil Cleanup Objectives Table 375-6.8(b) -Industrial

NE - Not Established

Note:

NA - Not applicable

4. Total Mercury

5. Sum of endosulfan I, endosulfan II, and endosulfan sulfate

c. PARAMETER

VOC - Volatile Organic Compound

PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

d. UNITS

pCi/g - picocuries per gram

μg/L - microgram per liter (ppb)

mg/kg - milligrams per kilograms (ppm)

μg/kg - micrograms per kilogram (ppb)

Table E

(Section: 4.0 SI SURVEILLANCE METHODOLOGIES)

FUSRAP Instruction Guides Used for Environmental Surveillance Activities

Document Number	Document Title
191-IG-007	Groundwater Level and Meteorological Measurements (BNI 1996b)
191-IG-011	Decontamination of Field Sampling Equipment at FUSRAP Sites (BNI 1996c)
191-IG-028	Surface Water and Sediment Sampling Activities (BNI 1993a)
191-IG-029	Radon/Thoron and TETLD Exchange (BNI 1993b)
EPA/540/S- 95/504	EPA Ground Water Issue Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures.

TABLE 1a	-	Number of Analyses or Measurement								
		No. of	Sample	Sa	mple		Ship	Conti	ngency	Total
·		Loc	ations	Du	plicate		Blank	Sar	nple	Analyses
Measured	Station	CY	Quarter	CY	Quarter	CY	Quarter	CYQ)uarter	per
Parameter	Identification	1 2	3 4	1 2	3 4	1	2 3 4	1 2	3 4	Year
	LABORATORY MI	EASUR	EMENTS							
External gamma radiation (OSLs) ³	1, 7, 8, 10, 11, 12, 13, 15	20	20	1	1	1	1	20	20	84
	18, 21, 23, 24, 28, 29, 36									
Radon gas	105, 116, 120 122, 123	20	20	1	1					42
Radon-222 flux	Waste Containment Structure		183							183

a. OSL = Optically Stimulated Luminescence

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				*Laborator	y Analytical	Parameters				**Field
Well Location	Iso Uranium	Iso Thorium ¹	Radium -226	Radium -228	Metals ¹	VOAs	Alkalinity	TDS	Anions	Parameters
A45	X	X	X	X	X		X	X	X	X
A50	X	Х	X	X	X		X	X	X	X
BO2W20S	X	Х	X	X.	X		X	X	X	X
OW04B	X	X	X	X	X		X	X	X	X
OW06B	Х	X	X	Х	X		Х	X	X	X
OW13B	X	X	X	X	X		X	· X	X	. X
OW15B	X	X	X	X	X		X	X	X	X
OW17B	X	X	Х	X	X	Sport and Sport	X	X	X	X
Field Duplicate	X	X	; X	X	X		X	X	X	X
OW18B ²	X	000000					X	X	X	X
313 ²	X						X	X	X	X
505 ²	X		G180000000000				X	X	X	X
302A ²	X						X	X	X	X
A42 ²	X						X	Х	X	X
BH49A ²	X						X	X	X	X
OW04A ²	X						X	X	X	X
OW11B ²	X		2 5 0 0 0 0				Х	X	X	X
415A ²	X					X	X	X	X	X
201A ²			10 (3) (4) (6) (6) (7)			X	Х	X	X	X

*Laboratory Analytical Parameters

VOA

- Volatile Organic Aromatic

TDS

- Total Dissolved Solids

Anions:

Chloride

Fluoride

Nitrate Nitrite

Phosphate Sulfate

**Field Parameters:

pΗ

Temperature

Specific conductivity

Oxidation-Reduction Potential

Dissolved oxygen

Turbidity

¹ Expanded parameter in 2008.

² Well added to the ESP in 2008.

. 1-6

Table 1c Environmental Surveillance Spring and Fall

Surface Water and Sediment Sampling Niagara Falls Storage Site

				*Laborator	y Analytical	Parameters				**Field
Sample Location	Iso Uranium	Iso Thorium ¹	Radium -226	Radium -228	Metals ²	PAHs ²	PCBs ²	Pesticides ²	VOAs ²	Parameters
SWSD009	X	Х	X	X	X	X	х	X	X	X
SWSD010	X	X	X	X	X	X	Х	X	X	X
SWSD011	X	X	X	X	X	X	X	X	X	X
SWSD021	X	X	X	X	X	X	X	Х	X	X
SWSD022	X	X	X	X	X	X	X	X	X	X
SWSD023	X	X	X	X	X	X	X	X	X	X
SWSD024	X	X	X	X	X	X	X	X	X	X
WDD1	X	X	X	X	X	X	X	X	X	X
WDD2	X	X	X	X	X	X	X	X	X	X
WDD3	X	X	X	X	X	X	X	X	X	X
Field Duplicate	X	X	X	. X	X	X	X	X	X	X

*Laboratory Analytical Parameters:

PAH

T-9

- Poly Aromatic Hydrocarbons

PCB

- Polycyclic Biphenyls

VOA TDS - Volatile Organic Aromatic

- Total Dissolved Solids

**Field Parameters:

pН

Temperature

Specific conductivity

Oxidation-Reduction Potential

Dissolved oxygen

Turbidity

¹ Expanded parameter in 2008.

² Parameter added to ESP program in 2008.

Table 2
2008 External Gamma Radiation Dose Rates
Niagara Falls Storage Site

Monitoring Location	Monitoring Station	Gross OSL Data ^a (mrem)	Gross OSL Data ⁸ (mrcm)	Normalized Gross TLD Data ^b (mrem/yr)	CY2008 Net OSL Data ^c (mrem/yr)
		(12/18/07 - 07/01/08) ^d	(07/1/08 - 12/17/08) ^d	35,1	3.7
	<u> </u>	18	20	38.1	6.7
	7	19	15	34.1	2.7
		12	17	29.1	-2.3
	<u>7</u> 11	12	12	29.1	-2.3
	11	10	15	25.1	-6.4
	12	15	19	34.1	2.7
	12	13	16	29.1	-2.3
-	13	13	18	30.1	-1.3
}	13	15	16		-0.3
-		13		31.1	-1.3
NFSS Perimeter	15		16	30.1	1.7
-	15 28	19 24	14	33.1 43.1	11.7
ł	28	23	22		
-				45.1	13.7
	29 29	20	18	38.1	6.7 9.7
		20		41.1	
	36	24	16	40.1	8.7
-	36	22	17	39.1	7.7
-	122	17	18	35.1	3.7
-	122	19	20	38.6	7.2
-	123	17	17	34.1	2.7
	123	15	17	32.1	0.7
	8	12	14	26.1	-5.3
-	8	11	15	26.1	-5.3
-	10	17	20	37.1	5.7
-	10	17	14	31.1	-0.3
}	18	14	16	30.1	-1,3
IWCS Perimeter	18	17	15	32.1	0.7
ľ	21	15	13	28.1	-3.3
ļ	21	17	16	33,1	1.7
-	23	17	19	36.1	4.7
ļ.	23	17	19	36.1	4.7
	24	13	18	31.1	-0.3
	24	17	15	32.1	0.7
	105	19	17	36.1	
	105	16	14	30.1	
Background	116	13	13	26.1	
<u> </u>	116	11	18	29.1	
L	120	16	16	32,1	
	120	19	16	35.1	
Average		15.7	15.7	31.4	
Background		13.7	13.7	31.9	

^a All data reported from the vendor are gross results in mrem per monitoring period.

OSL = Optically Stimulated Luminescence

Gross data for each period are normalized to a daily dose rate, averaged, and then normalized for the length of the leap year (366 days).

Net data are corrected by subtracting the average normalized background value.

Exposure period date format mm/dd/yy.

Table 3
2008 Radon Gas Concentrations^a

Average Daily Concentration (pCi/L)b

Monitoring	Monitoring	Start Dates ^d :	12/18/2007	7/1/2008
Location ^c	Station	End Dates ^d :	7/1/2008	12/17/2008
NFSS	1		< 0.2	0.3
Perimeter ^g	7		< 0.2	0.3
	11		< 0.2	0.2
	12		< 0.2	< 0.2
	12 (dup ^e)		< 0.2	0.2
	13		< 0.2	0.2
	15		< 0.2	0.3
	28		< 0.2	< 0.2
	29		< 0.2	0.3
	36		< 0.2	< 0.2
	122		< 0.2	0.3
	123		< 0.2	< 0.2
IWCS ^f	8		< 0.2	0.2
Perimeter	10		< 0.2	0.2
	18		< 0.2	< 0.2
	21		< 0.2	< 0.2
	23		< 0.2	< 0.2
	24		< 0.2	< 0.2
Background	105		< 0.2	< 0.2
	116		< 0.2	< 0.2
	120		< 0.2	< 0.2

- a. Radon gas concentrations were measured with RadTrak® detectors.
 These detectors measure the combined concentration of radon-220 and radon-222 in air.
- b. pCi/L picocuries per liter.
- c. Monitoring locations are shown on site map.
- d. Detectors were installed (start date) and removed (end date) on the dates listed.
- e. A quality control duplicate is collected at the same time and location and is analyzed by the same method for evaluating precision in sampling and analysis.
- f. Monitoring locations are at the perimeter of the interim waste containment structure (IWCS).
- g. Monitoring locations are at the perimeter of the site with exception of monitoring location 123.

Note: DOE off-site limit for radon-222 concentration is 3.00 pCi/L.

(<0.2) Indicates detection limit is reported. Actual result is less than this value.

1 pCi = 0.037 becquerel

Table 4
2008 Radon Flux Monitoring Results^a
Niagara Falls Storage Site

		Raden-222 Flux				T	Radon-222 Flux			
	Qualifier ^d				NFSS					
NFSS	lal		Ci/m²/s)	12(-) MTD 4		Qualifier	-	MDA		
Sample ID	10	0.07660	± 0.020	MDA 39 0.02772	Sample ID	-	0.02737	Ci/m ² /s) ± 0.02555	MDA 0,05530	
2	U	0.04897	± 0.026		52	U	0.02737	± 0.02535	0.05905	
3	U	0.07181	± 0.040		53	ΙŬ	0.04101	± 0.02498	0.06334	
4	Ū	0.06392	± 0,035		54	ŤŪ	0.06912	± 0.03903	0.09125	
5	Ť	0.04815	± 0.014		55	Ū	0.05430	± 0.02720	0.07180	
6	U	0.07575	± 0.035		56	U	0.04779	± 0.03084	0.07280	
7	U	0.08489	± 0.0414	13 0.09480	57	U	0.04180	± 0.02388	0.06410	
8	U	0.07147	± 0.0401	70 0.09298	58	U	0.03119	± 0.02407	0.05931	
9.	U	0.03345	± 0.029	5 0.05932	59	U	0.04341	± 0.02620	0.06573	
10		0.08968	± 0.0224	15 0.03961	60	U	0.05583	± 0.03353	0.08151	
10-DUP ^b	U	0.09612	± 0.0469		60-DUP ^b	U	0.03874	± 0.02366	0.06559	
11	_	0.07990	± 0.020		61	U	0.06357	± 0.03101	0.07523	
12		0.12120	± 0.044		62	<u> </u>	0.23490	± 0.03927	0.04055	
13	U	0.04466	± 0.0265		63	U	0.08423	± 0.03335	0.08601	
14	U	0.04510	± 0.025		64	U	0.01937	± 0.01855	0.05370	
15	U	0.03573	± 0.0353		65	U	0.04656	± 0.03002	0.06791	
16 17	U	0.04748 0.05007	± 0.0255		66 67	U	0.04461	± 0.03179 ± 0.02461	0.07310 0.05586	
18	U	0.05802	± 0.027		68	U	0.02388	± 0.02300	0.05240	
19	U	0.06202	± 0.0315		69	U	0.00320	± 0.03093	0.03240	
20	U	0.00202	± 0.0214		70	Ü	0.05514	± 0.03004	0.08063	
20-DUP ^b	U	0.04762	± 0.0329		70-DUP ^b	Ū	0.06768	± 0.03313	0.08781	
21		0.07385	± 0.0232		70-201	Ū	0.02924	± 0.02729	0.06118	
22	_	0.09196	± 0.0222		72	Ū	0.04424	± 0.02623	0.06535	
23	U	0.03671	± 0.0242		73	1	0.07925	± 0.02450	0.04598	
24	U	0.02123	± 0.0215		74	U	0.05683	± 0.02875	0.07547	
25	U	0.03367	± 0.0218	0.05539	75	U	0.06380	± 0.03701	0.08816	
26	U	0.04939	± 0.0289	5 0.07769	76		0.05953	± 0.02155	0.03359	
27		0.08960	± 0.0208	3 0.02815	77	U	0.03971	± 0.02396	0.06610	
28	U	0.06123	± 0.0303	4 0.08081	78	U	0.04149	± 0.03012	0.07244	
29	U	-0.00860	± 0.0209		79	U	0.04804	± 0.03212	0.07989	
30	U	0.07416	± 0.0331		80	_	0.06474	± 0.03705	0.08721	
30-DUP ^b	U	0.06147	± 0.0303		80-DUP ^b	U	0.05277	± 0.03382	0.07987	
31	U	0.04637	± 0.0243		81	-	0.05052	± 0.03269	0.08342	
32	U	0.04300	± 0.0251		82	_	0.04604	± 0.02686	0.07205	
33		0.00857	± 0.0241		83	_	0.04403	± 0.02815	0.07739	
34 35		0.04396	± 0.0250		84 85		0.02683 0.08949	± 0.02401 ± 0.03861	0.05950	
36		0.03118	± 0.0330		86	-	0.04971	± 0.02528	0.06600	
37		0.12670	± 0.0283		87	-	0.07053	± 0.04051	0.09869	
38	U	0.02746	± 0.0196		88		0.07033	± 0.03274	0.08257	
39		0.05599	± 0.0314		89	—	0.01541	± 0.02126	0.05764	
40		0.00600	± 0.0163		90		0.08621	± 0.04064	0.09744	
40-DUP ^b		0.03417	± 0.0200		90-DUP ^h		0.11620	± 0.02655	0.03198	
41		0.04155	± 0.0227		91	U	0.07590	± 0.04106	0.10120	
42	U	0.05523	± 0.0346		92	_	0.05453	± 0.03289	0.08827	
43	U	0.08843	± 0.0394	9 0.09158	93	_	0.03494	± 0.02247	0.06177	
44	U	0.08841	± 0.0410	0 0.10240	94	U	0.05041	± 0.03593	0.08432	
45	U	0.07256	± 0.0402		95	U	0.04081	± 0.02477	0.06715	
46		0.05023	± 0.0397		96	-	0.03633	± 0.02962	0.07015	
47	-	0.03627	± 0.0217		97	_	0.03592	± 0.02386	0.06506	
48	$\overline{}$	0.06382	± 0.0176		98	_	0.08241	± 0.02243	0.01209	
49	_	0.05040	± 0.0260		99	_	0.05145	± 0.02901	0.07721	
50	-	0.04952	± 0.0260		100	_	0.05878	± 0.05075	0.10240	
50-DUP ^b	U	0.03630	± 0.0208	4 0.05864	100-DUP ^b	U	0.09947	± 0,04384	0.11290	

Table 4 2008 Radon Flux Monitoring Results^a

Niagara Falls Storage Site												
	Ę		Rad	on-222 Flu	x		.	Radon-222 Flux				
NFSS	Qualifier ^d			•		NFSS Sample ID	Qualifier					
Sample ID	Įδ		pCi/m		MDA	Sample 10	Õ			n ² /s)	MDA	
101	U	0.07361	_	0.04156	0.09195	151	U	0.06209	_	0.02979	0.07697	
102	U	0.06915	_	0.03485	0.09311	152	U	0.06928	±	0.03770	0.09586	
103	U	0.02087	±	0.01925	0.05452	153	U	0.00924	_ <u></u> ±	0.02018	0.05103	
104	Ų	0.05011	<u> </u>	0.04334	0.09078	154	U	0.05514	_	0.03216	0.08661	
105	U	0.03845		0.02717	0.06765	155	U	0.04256	±	0.03740	0.07928	
106	U	0.05466	4	0.02969	0.08073	156	U	0.05377	±	0.03335	0.08661	
107	U	0.02956	4	0.02505	0.05881	157		0.06598	_	0.01885	0.03351	
108	U	0.08063	±	0.04303	0.10410	158	U	0.07029		0.04145	0.10320	
109	U	0.01050	±	0.02024	0.05125	159	U	0.04799	±	0.02772	0.07434	
110	U	0.04083	1	0.03326	0.07530	160	U	0.03818	±	0.02602	0.07243	
110-DUP ^b	U	0.00955	±	0.02246	0.05692	160-DUP ^b	U	0.04264	±	0.03381	0.07656	
111		0.06592	±	0.01841	0.03803	161	U	0.07265	±	0.04229	0.10180	
112	U	0.05723	±	0.03261	0.08178	162	U	0.05074	土	0.03253	0.08042	
113	U	0.01172	±	0.02322	0.05899	163	U	0.01621	±	0.02545	0.06483	
114	U	0.07325	±	0.04808	0.09799	164	U	0.06716	1	0.03519	0.08761	
115	Ū	0.04003	±	0.02544	0.07119	165	U	0.04603	±	0.02631	0.07364	
116		0.06283		0.02011	0.02602	166	U	0.03860	\perp	0.03360	0.07520	
117	U	0.02027		0.02354	0.06343	167		0.06568	±	0.02124	0.04170	
118	-	0.04077	-	0.03026	0.07036	168	U	0.13050	_	0.05390	0.12370	
119		0.11230		0.04740	0.12210	169	Ū	0.05379		0.02971	0.08131	
120	Ū	0.00240		0.02376	0.05261	170	Ť	0.07637		0.02127	0.04412	
120-DUP ^b	_	0.04147		0.02501	0.06674	170-DUP ^b	U	0.06504		0.03555	0.09202	
121	_	0.02063	±	 	0.06727	171		0.08487	_	0.04527	0.11540	
122	_	0.07744	—	0.03336	0.08721	172		0.08004		0.04231	0.10990	
123	_	0.07139		0.03378	0.09066	173	Ť	0.10850	_	0.02462	0.03979	
124	-	0.00718	土	}	0.05124	174	U	0.01237	_	0.02439	0.06197	
125		0.07924	±		0.09615	175		0.07921		0.03652	0.09512	
126		0.06053		0.01822	0.02978	176	U	0.01940		0.02967	0.07254	
127	U	0.03984			0.07641	177	U	0.01745	→	0.02367	0.04964	
128		0.07942		0.02126	0.03793	178		0.00713		0.02134	0.05362	
129	Ü	0.05259		0.02120	0.10090	179		0.07862	-	0.02134	0.09242	
130	_	0.04612		0,01618	0.03280	180		0.06914		0.04970	0.10720	
130-DUP ^b		0.04752		0.02776	0.07210	180-DUP ^b	U	0.08115		0.03977	0.10450	
		0.07038	-	0.02207	0.04665	*		0.01054		0.01817	0.04907	
131 132		0.03903		0.02207	0.04663	181° 182°	۲	0.01034		0.01878	0.04907	
	U			+			U			0.01948		
133	\perp	-0.00372 0.07172		0.01717	0.03901	183°	υ	0.02055			0.05534	
134					0.09272	Average	U	0.02957	(p	Ci/m²/s)		
135		0.07532 0.05466		0.01989	0.00976	background		<u> </u>				
136						-{	13376	70	Á	11 Val	I le it-	
137		0.05303		0.02809	0.07503		IW(ll Values	Units	
138	-	0.10220		0.05664	0.11460	-		rage:		05368	(pCi/m²/s)	
139		0.03095		0.02363	0.06049	-	High			23490	(pCi/m²/s)	
140	$\overline{}$	0.01579		0.02478	0.06314	4	Low		-0	.00860	(pCi/m²/s)	
140-DUP ^b		0.05848		0.03508	0.08432	4						
141	U	0.02139	土	0.02936	0.07198	1						

NOTE: The EPA Standard for Radon-222 Flux is 20 pCi/m²/sec

- a. Radon-222 flux was performed on August 4-5, 2008
- b. Every 10th canister is counted twice as a quality control (QC) duplicate to evaluate analytical precision.
- e. Background:

142

143

144

145

146

147

148

149

150

150-DUPb

U 0.05229

U 0.05210

U 0.09214

U 0.06362

U 0.04883

U 0.03186

U 0.04915

U 0.04658

U 0.04075

U 0.00466

0.03137

0.02861

0.04759

0.03312

0.04743

0.02088

0.02905

0.03104

 ± 0.02444

± 0.01687

0.07935

0.07641

0.11040

0.08241

0.08999

0.05844

0.07951

0.07481

0.06919

0.04645

181-Lewiston-Porter Central School

182-Balmer Rd. (CWM Secondary Gate)

183-Lewiston Water Pollution Control Center

d. Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

Table 5 2008 Field Parameter Summary Niagara Falls Storage Site

GROUNDWATER

GROUNDWAT	TER								
		Temperature		Spec. Cond.b	DOd	ORP	Turbidity	Volume	Discharge
Well ID	Date	(°C°)	pН	(uS/cm ^c)	(mg/L°)	(mV^g)	(NTU ^h)	Purged (Litersi)	milliter PM
A45	6/12/2008	15.2	8.71	2233	1.24	48	0.0	5.60	280
A50	6/12/2008	18.2	7.07	1123	2.65	126	7.5	3.10	102
OW04B	6/13/2008	17.8	9.07	1953	0.31	-94	1.6	4.24	141
OW06B	6/16/2008	20.7	6.73	1439	4.40	-32	1.9	4.10	116
OW13B	6/10/2008	16.5	7.68	2492	1.18	132	0.9	4.34	97
OW15B	6/13/2008	21.9	7.23	1011	3.15	139	0.1	3.60	103
OW17B	6/17/2008	17.5	7.93	1244	0.23	49	0.3	5.90	131
B02W20S	6/11/2008	20.6	7.10	1293	0.52	73	2.5	3.53	118
OW18B	6/18/2008	15.8	7.24	2322	0.32	109	4.8	3.16	105
313	6/11/2008	15.5	7.79	4071	7.29	85	1.5	3.30	110
505	6/18/2008	13.8	8.10	4383	0.99	120	0.0	3.91	98
302A	6/17/2008	17.8	6.56	7164	0.18	102	31.2	3.84	96
A42	6/18/2008	14.4	8.09	1168	0.20	145	0.0	3.99	133
BH49A	6/17/2008	15.9	7.10	1384	0.29	80	1.8	2.77	92
OW04A	6/17/2008	14.8	8.38	1131	0.22	122	16.1	2.67	107
OW11B	6/11/2008	14.6	7.42	1447	0.34	38	6.5	4.40	112
415A	6/17/2008	11.4	9.28	2544	0.44	13	0.3	3.29	132
201A	6/18/2008	16.6	8.57	1541	0.76	-8	0.2	4.40	110
A45	10/27/2008	11.6	6.84	2072	0.11	-197	3.1	4.10	164
A50	10/28/2008	9.2	6.98	1727	0.26	94	3.2	3.41	171
OW04B	10/27/2008	12.8	7.02	2119	0.26	19	0.4	3.40	225
OW06B	10/28/2008	11.0	7.01	1780	0.27	-5	3.0	3.09	103
OW13B	10/28/2008	9.3	6.84	2448	0.43	137	4.2	4.56	101
OW15B	10/27/2008	12.3	6.95	1558	1.43	153	6.8	5.11	113
OW17B	10/28/2008	11.1	7.25	1424	0.34	60	0.9	4.60	153
B02W20S	10/29/2008	11.4	7.16	1374	1.12	108	7.7	4.45	171
OW18B	10/28/2008	11.1	7.22	2310	0.47	14	3.2	3.25	108
313	10/29/2008	10.9	6.62	4254	0.54	28	3.8	1.80	51
505	10/29/2008	9.9	6.8	4555	0.86	32	23.0	1.40	40 \
302A	10/29/2008	11.4	6.87	8267	1.09	69	3.9	3.55	101
A42	10/29/2008	11.4	6.86	1293	0.13	60	0.8	8.25	275
BH49A	10/30/2008	13.5	7.22	1691	0.19	-300	3.2	6.45	215
OW04A	10/29/2008	9.6	8.03	1306	0.47	-78	3.3	3.38	135
OW11B	.10/30/2008	14.7	6.95	1597	0.27	111	11.4	3.86	110
415A ·	10/29/2008	9.2	6.60	2816	0.51	-14	9.9	3.20	80
201A	10/30/2008	13.0	6.99	1704	3.24	134	7.5	2.67	89

7

Table 5 2008 Field Parameter Summary Niagara Falls Storage Site

SURFACE WATER

SURFACE WATE				C C 1b	D04	OBB		77.	
				Spec. Cond.	DOª	ORP ¹	Turbidity	Volume	Discharge
Surface Water	Date	Temperature	pН	(uS/cm ^c)	(mg/L°)	(mV^g)	(NTU ^h)	Purged (Liters ⁱ)	milliter PM
SWSD009	6/11/2008	19.07	7.06	1677	6.29	164	40.3	NA	NA
SWSD010	6/18/2008	18.5	7.63	1433	8.12	146	15.7	NA ·	NA
SWSD011	6/16/2008	20.8	7.05	187	7.02	187	10.0	NA	NA
SWSD021	6/11/2008	20.2	9.79	717	3.46	179	17.0	NA	NA
SWSD022	6/17/2008	17.5	7.23	655	5.84	139	20.0	NA	NA
SWSD023	6/11/2008	*	*	*	*	*	NA	NA	NA
SWSD024	6/13/2008	21.5	5.79	1224	7.02	102	15.8	NA	NA
WDD1	6/11/2008	23.1	9.70	1609	3.86	143	3.2	NA	NA
WDD2	6/12/2008	19.2	7.03	1574	5.30	79	1.0	NA	NA
WDD3	6/12/2008	19.0	7.33	1541	5.35	75	3.8	NA	NA
25-25-00-32-34-4115-32-44-9-2-32-4-4-0-2-2-4-6-4-8-3	\$60000096660000000000000000000000000000	OF TAXABLE PARTIES OF COMPANY OF	Browner of the Con-		SERVICE SERVICE SERVICES	20HONESSEZIERA YORKA	SUSSECUTION OF SUSSECUE		EXSCRIPTION OF THE PROPERTY OF THE
SWSD009	10/29/2008	10.4	7.04	2098	8.15	145	NA	NA	NA
SWSD010	10/29/2008	6.8	7.74	1333	9.10	97	42.30	NA	NA
SWSD011	10/30/2008	*	*	*	*	*	NA	NA	NA
SWSD021	10/30/2008	*	*	*	*	*	NA	NA	NA
SWSD022	10/30/2008	*	*	*	*	*	NA	NA	NA
SWSD023	10/29/2008	10.4	7.39	1390	10.94	135	13.70	NA	NA
SWSD024	10/28/2008	13.6	7.47	1164	9.79	138	15.30	NA	NA
WDD1	10/27/2008	12.2	7.06	1231	11.70	171	7.20	NA	NA
WDD2	10/27/2008	10.9	7.01	1323	11.33	176	7.00	NA	NA
WDD3	10/28/2008	12.8	7.20	1245	9.79	150	10.80	NA	NA

- a. °C Degrees Celsius.
- b. Spec. Cond. Specific conductance.
- c. uS/cm microSiemens/centimeter.
- d. DO Dissolved oxygen.
- e. mg/L milligrams per liter.
- f. ORP Oxidation-Reduction potential.
- g. mV milliVolts.
- h. NTU Nephelometric turbidity units.

- i. 1-Liter = 0.26 gallons
- j. milliliter PM = milliliter per minute (1000ml = 1.0 liter)
- NA Not applicable
- * parameters not taken

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		1	1	T		T				T
Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOR DCC***
Sample Date: 6/17/2		<u> </u>						<u> </u>	7.0	
SWSD009	Radiological	Radium-226	0.568	11	0.706	pCi/L	0.471	5ª	5ª	
		Radium-228	0.102	_			0.288	5°	5 ^a	
SWSD009	Radiological	·····	1	U	0.516		0,288			
		Total Radium ^a	Non-detect	L		pCi/L		5ª	5ª	100
SWSD009	Radiological	Thorium-228	0.112	_	0.260	pCi/L	0,160	15 ^b	NE	40
SWSD009	Radiological	Thorium-230	0.113	U	0.197	pCi/L	0.140	15 ⁶	NE	30
SWSD009	Radiological	Thorium-232	0.084	U	0.178	pCi/L	0,119	15 ^b	NE	. 5
		Total Thorium b	Non-detect			pCi/L		15 ^b	NE	N
SWSD009	Radiological	Uranium-234	1.150		0.797	pCi/L	0,713	27 ^c	NE	600
SWSD009		Uranium-235	0,263	IJ	0.548	_	0,369	27°	NE NE	600
	Radiological			U		pCi/L				
SWSD009	Radiological	Uranium-238	1.810	_	0.732	pCi/L	0,839	27°	NE	600
		Total Uranium ^c	2,960			pCi/L		27°	NE	600
SWSD009	Metal	Aluminum	1470		5.0	μg/L		50-200 ^d	NE	
SWSD009	Metal	Antimony	12,2		0.5	μg/L		6	3	
SWSD009	Metal	Arsenic	2.1	J	1,5	μg/L		10	25	
SWSD009	Metal	Barium	95.3		0.5	μg/L		2000	1000	
SWSD009	Metal	Beryllium	0,12	ī	0.1	μg/L		4	11	
SWSD009	Metal	Boron	373	-	20,0	µg/L µg/L		NE	1000	564 SS
				T .				NE C	1000	1217.565.5
SWSD009	Metal	Cadmium	0.19	J	0.1	μg/L		3	5	
SWSD009	Metal	Calcium	190000		100.0	μg/L		NE	NE	*****
SWSD009	Metal	Chromium	2.6	J	1,0	μg/L		100	50	
SWSD009 ·	Metal	Cobalt	1.8		0.1	μg/L		NE	NE	100000
SWSD009	Metal	Copper	12.7		0.2	μg/L		1300	200	
SWSD009	Metal	Iron	2990		10.0	μg/L		300 ^d	300	
SWSD009	Metal	Lead	7.9		0,5	μg/L		15	25	801666
SWSD009	Mctal	Lithium	31.8		2.0	μg/L	480.00	NE	NE	-85.00
WSD009	Metal	Magnesium	51700		25.0			NE	NE	246986
				_						
WSD009	Metal	Manganese	140		1.0	μg/L		50 ^d	300	
WSD009	Metal	Mercury	0.03	U	0.03	μg/L		2	0.7	
WSD009	Metal	Nickel	10.1		0.5	μg/L		NE	100	
WSD009	Metal	Potassium	18600		80.0	μg/L		NE.	NE	
WSD009	Metal	Selenium	2	J	1.0	μg/L		50	10	
SWSD009	Metal	Silver	0.2	U	0.2	μg/L		100 ^d	50	
WSD009	Metal	Sodium	101000	-	400.0	μg/L		NE	20000	
WSD009	Metal	Thallium	0.3	11	0.3	μg/L		2	NE	
WSD009	Metal	Vanadium	6.6	F.	3.0	μg/L		NE	14	
				,						
WSD009	Metal	Zinc	43.1	7.7	2,6	μg/L		5000 ^d	NE	
WSD009	VOC	1,1,1-Trichloroethane	1.0		1,0	μg/L		200	5	
WSD009	VOC	1,1,2,2-Tetrachloroethanc	1.0		1.0	μg/L		NE NE	. 5	
WSD009	VOC	1,1,2-Trichloroethane	1.0		1.0	μg/L		5		
WSD009	VOC	1,1-Dichloroethane	1.0		1,0	μg/L		NE	. 5	
WSD009	VOC	1,1-Dichloroethylene	1.0		1.0	μg/L		7	5	
WSD009	VOC	1,2-Dichloroethane	1.0		1,0	μg/L		5	0.6	
WSD009	VOC	1,2-Dichloropropanc	1.0		1.0	μg/L		5	l	250 (8
WSD009	VOC	2-Butanone	1.5		5.0	μg/L		NE	NE	
WSD009	VOC	2-Hexanone	5.0	U	5,0	μg/L		NE	NE	621760
WSD009	VOC	4-Methyl-2-pentanone	6.4		5,0	μg/L		NE	NE	
WSD009	VOC	Acetone	33.2		5,0	μg/L		. NE	NE	
WSD009	VOC	Benzene	0.7		1,0	μg/L		5	ł	
WSD009	VOC	Bromodichloromethane	1.0		1,0	μg/L		NE	NE	
WSD009	VOC	Bromoform	1.0		1,0	μg/L		NE	NE	
WSD009	VOC	Bromomethane	1,0	U	1,0	μg/L		NE	5	
WSD009	VOC	Carbon disulfide	5.0		5,0	μg/L		NE	60	
WSD009	VOC	Carbon tetrachloride	1.0	Ü	1.0	μg/L			5	
WSD009	VOC	Chlorobenzene	0.4	_	1,0	μg/L		100	5	
WSD009	VOC	Chloroethane	1.0	U	1.0	μg/L		NE	5	
WSD009	VOC	Chloroform	1.0	_	1,0	μg/L	18 March	NE	7	
WSD009	VOC	Chloromethane	1.0		1.0	μg/L		NE NE	5	
WSD009	VOC	cis-1,2-Dichloroethylene	1.0		1.0	μg/L		70	5	
WSD009	VOC	cis-1,3-Dichloropropylene	1.0		1.0	μg/L		NE	0.4°	
WSD009	VOC	Ethylbenzene	1.0		1.0	μg/L	0000844484	700	7.4	×96 (10)
WSD009		Methylene chloride	5.0	_	5.0	րց/L		700	5	
WSD009	VOC	Styrene	1.0		1.0			100	5	
	VOC	Styrene Tetrachloroethylene	1.0		1.0	μg/L		100	5	
WSD009					THE PERSON OF PE	μg/L		1000	3	
WSD009	VOC	Toluene	0,3		1.0	μg/L		1000	3	
WSD009		trans-1,2-Dichloroethylene	1,0		1.0	μg/L		100	3	
WSD009	VOC	trans-1,3-Dichloropropylene	1,0		1.0	μg/L		NE	0.4°	
WSD009	VOC	Trichloroethylene	1.0		1.0	μg/L		5	5	
WSD009	VOC	Vinyl chloride	1,0	U	1.0	μg/L		2	2	
	VOC	Xyienes (total)	1,0		1.0	μg/L		10000	51	200

										
Surface Water				QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCL.s**	NY State Water Quality Stds.**	DOE DCGs**
Location*	PARAMETER*		RESULT				<u> 2</u> 5			A
SWSD009	PAH	Acenaphthene	0.472	U	0,472	μg/L		NE	NE	
SWSD009	PAH	Acenaphthylene	0.203]	0,472	μg/L		NE	NE	
SWSD009	PAH	Anthracene	0.472	U	0,472	μg/L		NE	NE NE	
SWSD009	PAH	Benzo(a)anthracene	0.0372	1	0.0472	μg/L		NE	NE	
SWSD009	PAH	Benzo(a)pyrene	0.0394		0.0472	μg/L		0.2	NE	
SWSD009	PAH	Benzo(b)fluoranthene	0.0759		0.0472	μg/L		NE	NE	
SWSD009	PAH	Benzo(ghi)perylene	0.0172		0.0472	μg/L		NE	NE	
SWSD009	PAH	Benzo(k)fluoranthene	0.0236	Ü	0,0236	μg/L		NE	NE	
SWSD009	PAH	Chrysene	0.0321	J.	0.0472	μg/L		NE	NE	
SWSD009	PAH	Dibenzo(a,h)anthracene		υ	0.0472	μg/L		NE	NE NE	
SWSD009	PAH	Fluoranthene	0.149		0.0472	μg/L		NE		
SWSD009	PAH	Fluorene	0.472 0.0472	U U	0.472 0.0472	μg/L		NE NE	NE NE	
SWSD009 SWSD009	PAII	Indeno(1,2,3-ed)pyrene		+	0.0472	μg/L		NE NE	NE NE	
SWSD009	PAU	Naphthalene Phenanthrene	0,472	÷	0.472	μg/L		NE NE	NE NE	
SWSD009	PAH	Pyrene	0.472	ņ	0.0472	μg/L		NE NE	NE NE	2012642
		3			No. 2012 Co. 2012 Co. 2	μg/L	0.0000000000000000000000000000000000000	0.5		966
SWSD009	PCB	Aroclor-1016	0.0943	-	0.0943	μg/L		0.5	0.09 ^g	
SWSD009	PCB	Aroclor-1221	0.0943	U	0.0943	μg/L			0.09 ^E	600.000.00
SWSD009	PCB	Aroclor-1232	0.0943	U	0,0943	μg/L		0.5	0.09 ^g	
SWSD009	PCB	Arocler-1242	0.0943	U	0.0943	μg/L		0,5	0.09 ^g	
SWSD009	PCB	Aroclor-1248	0.0943	U	0.0943	μg/L		0.5	0.09^{g}	
SWSD009	РСВ	Aroclor-1254	0.0943	U	0,0943	μg/L		0.5	0,09 ^g	
SWSD009	PCB	Aroclor-1260	0,0943	IJ	0.0943	μg/I.		0.5	$0.09^{\rm g}$	
SWSD009	Pesticide	4,4'-DDD	0.1890	U	0,1890	μg/L		NE	0.3	
SWSD009	Pesticide	4,4'-DDE	0.1890	U	0.1890	μg/L		NE	0.3	
SWSD009	Pesticide	4,4'-DDT	0.1890	U	0,1890	μg/L		NE	0.2	
SWSD009	Pesticide	Aldrin	0.0943	U	0.0943	μg/L		NE	ΝD	
SWSD009	Pesticide	alpha-BHC	0.0943	U	0,0943	μg/L		NE	0.01	
SWSD009	Pesticide	alpha-Chlordanc	0.0943	U	0.0943	μg/L		NE	NE	
SWSD009	Pesticide	beta-BHC	0.0943	U	0.0943	μg/L		NE	0.04	
SWSD009	Pesticide	delta-BHC	0.0943	U	0.0943	μg/L		NE	0.4	
SWSD009	Pesticide	Dieldrin	0.1890	U	0,1890	μg/L		NE	0.001	
SWSD009	Pesticide	Endosulfan I	0.0943		0.0943	μg/L		NE	NE	
SWSD009	Pesticide	Endosulfan II	0.1890		0.1890	μg/L		NE	NE	
SWSD009	Pesticide	Endosulfan sulfate	0.1890		0.1890	μg/L		NE	NE	
SWSD009	Pesticide	Endrin	0.1890		0.1890	μg/L		. 2	ND	
SWSD009		Endrin aldehyde	0.1890		0.1890	μg/L		NE	5	
SWSD009	Pesticide	Endrin ketone	0.1890		0.1890	μg/L		NE	5	
SWSD009	Pesticide	gamma-BHC (Lindane)	0.0943		0.0943	μg/L		0.2	0.5	
SWSD009		gamma-Chlordane		U	0.0943	μg/L		NE	NE	
SWSD009	Pesticide	Heptachlor		U	0.0943	μg/L		0.4	0.4	
SWSD009		Heptachlor epoxide		U	0.0943	μg/L		0.2	0.3	
SWSD009		Methoxychlor	10.9430		0.9430	μg/L		40	35	
SWSD009	Pesticide	Toxaphene	2.3600	U	2,3600	μg/L		3	0.06	

Surface Water Location* Sample Date: 6/11/2	PARAMETER*	ANALYTE	RESUL'	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD021	Radiological	Radium-226	0,245	U	0.469	pCi/L	0,288	5ª	5°	100
SWSD021	Radiological	Radium-228	-0,848	U	0.847	pCi/L	0,391	5°	5°	
		Total Radium"	Non-detect			pCi/L		- 5ª	5ª	100
SWSD021	Radiological	Thorium-228	-0.030	U	0,380	pCi/L	0,141	15 ^b	NE	400
SWSD021	Radiological	Thorium-230	-0.033	U	0,361	pCi/L	0,128	15 ^h	NE	300
SWSD021	Radiological	Thorium-232	-0,053	U	0,290	pCi/L	0,098	15 ^b	NE NE	50
		Total Thorium ^b	Non-detect	匚	_	pCi/L		15 ^h	NE	NE
SWSD021	Radiological	Uranium-234	5,070	<u> </u>	0,037	pCi/L	0,528	27°	NE	600
SWSD021	Radiological	Uranium-235	0,655	⊢	0.089	pCi/L	0,213	27°	NE	600
SWSD021	Radiological	Uranium-238	4.090	-	0.080	pCi/L	0,475	27°	NE	600°
SWSD021	Metal	Total Uranium ^c Aluminum	9,815 322	┢	5.0	pCi/L μg/L		50-200 ^d	NE NE	000
SWSD021	Metal	Antimony	0.5	 	0.5	μg/L		50-200	3	
SWSD021	Metal	Arsenic	2,2	-	1.5	μg/L		10	25	
SWSD021	Metal	Barium	61	Ť	0.5	μg/L		2000	1000	
SWSD021	Metal	Beryllium	0.1	U	0.1	μg/L		4	11	
SWSD021	Metal	Boron	99.7		4.0	μg/L		NE	1000	
SWSD021	Metal	Cadmium	0.11	U	0.1	ug/L		5	5	
SWSD021	Metal	Calcium	93000	\Box	200.0	μg/L		NE	NE	
SWSD021	Metal	Chromium	50.1		1.0	μg/L		100	50	
SWSD021	Metal	Cobalt	0.87	J	0.1	μg/L		NE 1999	NE	
SWSD021	Metal	Соррег	2.7	-	0.2	μg/L		1300	200	
SWSD021 SWSD021	Metal Metal	Iron I.cad	1160 0.5	Ū	10.0 0.5	μg/L		300 ^d	300 25	
SWSD021	Metal	Lithium	10	v	2,0	μg/L μg/L		NE	NE	
SWSD021	Metal	Magnesium	28700		50.0	µg/L		NE.	NE	
SWSD021	 	Manganese	529		1.0	μg/L		50 ^d	300	
SWSD021		Мегсигу	0.03	Ū	0.03	μg/L		2	0.7	
SWSD021	Metal	Nickel	3,1		0.5	μg/L		NE	100	
SWSD021	Metal	Potassium	2880		80.0	μg/L.		NE	NE	
SWSD021	Metal	Selenium		Ü	1.0	μg/L		50	10	
SWSD021	Metal	Silver	0.2	Ü	0.2	μg/L		100 ^d	50	
SWSD021	Metai	Sodium	14700		800.0	μg/L		NE	20000	
SWSD021		Thallium	0.3		0.3	μg/L		2	NE	
SWSD021 SWSD021		Vanadium Zinc	6.9	U	3.0 2.6	μg/L		NE 5000⁴	14 NE	
SWSD021		1,1,1-Trichloroethane	1.0		2.0	μg/L μg/L		200		
SWSD021		1,1,2,2-Tetrachloroethane	1.0		1	μg/L		NE.	5	
SWSD021		1,1,2-Trichloroethane	1.0	U	1	μg/L		. 5	1	
SWSD021		1,1-Dichloroethane	1.0		1	μg/L		NE	5	
SWSD021		1,1-Dichloroethylenc	1.0		1	μg/L		7	5	
SWSD021 SWSD021		1,2-Dichloroethane 1,2-Dichloropropane	1.0		1	μg/L μg/L		5	0.6	
SWSD021		2-Butanone	5.0		, 5	μg/L μg/L		NE.	NE.	
SWSD021		2-Hexanone	5.0		5	μg/L		NE	NE	
SWSD021		4-Methyl-2-pentanone	5.0		5	μg/l		NE	NE	
SWSD021		Acetone	5.0	_	5	μg/L		NE	NE	
SWSD021 SWSD021		Benzene Bromodichloromethane	1.0	_	1	μg/L μg/L		5 NE	NE	
SWSD021		Bromoform	1.0	_	1	μg/i μg/l		NE NE	NE NE	
SWSD021		Bromomethane	1.0	-	100000	μg/L		NE	5.	
SWSD021	VOC	Carbon disulfide	5.0			μg/I.		NE	60	
SWSD021		Carbon tetrachloride	1.0	_		μg/l.		5	5	
SWSD021		Chlorobenzene	1.0	;	100 701	μg/L		100	5	
SWSD021 SWSD021		Chloroethane Chloroform	1.0		1	μg/L μg/L		NE NE	<u>5</u>	
SWSD021		Chloromethane	1.0		1	μg/L		NE.		
SWSD021		cis-1,2-Dichloroethylene	1.0	\rightarrow	i	μg/L		70	5	
SWSD021		eis-1,3-Dichloropropylene	1.0		a de caract	μg/L		NE	0.4°	
SWSD021		Ethylbenzene	1.0		1	μg/L		700	5	
SWSD021		Methylene chloride	5.0		10000000000	μg/I		. 5	5	
SWSD021		Styrene Petrachlorocthylene	1.0 1.0		ampunia 2	μg/L		100	5	
SWSD021 SWSD021		Poluenc	1.0		1	μg/L μg/L		1000	5	
SWSD021		rans-1,2-Dichloroethylene	1.0		1	μg/L		1000	5	
SWSD021		rans-1,3-Dichloropropylene	1.0		i	μg/L		NE	0,4°	
SWSD021		Prichloroethylene	1.0		a	μg/L		5	5	
SWSD021		/inyl chloride	1.0		1	μg/L		2	2	
SWSD021	VOC 2	(ylenes (total)	1.0	U	1	μg/L		10000	5 ^f	

Table 6

		ng 2000 Environnemai Bui ve								
Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (\pm)	Federal Regulations MCLS**	NY State Water Quality Stds.**	DOE DCGs**
SWSD021	PAH	Acenaphthene	0.472	U	0,472	μg/L		NE	NE	
SWSD021	PAH	Acenaphthylene	0.472	U	0,472	μg/L		NE	NE	
SWSD021	PAH	Anthraceae	0.472		0,472	μg/L		NE	NE	
SWSD021	PAIL	Benzo(a)anthracene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PAH	Benzo(a)pyrene	0.0472		0,0472	μg/L		0.2	ND	
SWSD021	PAH	Benzo(b)fluoranthene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PAH	Benzo(ghi)perylene	0.0472		0.0472	μg/I.		NE	NE	
SWSD021	PAH	Benzo(k)fluoranthene	0.0236		0,0236	μg/L		NE	NE	
SWSD021	PAH	Chrysene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PAH	Dibenzo(a,h)anthracene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PAH	Fluoranthene	0.0472		0.0472	μg/I.		NE	NE	
SWSD021	PAH	Fluorene	0.472		0.472	μg/I.		NE	NE	
SWSD021	PAH	Indeno(1,2,3-cd)pyrene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PAH	Naphthalene		U	0,472	μg/L		NE	NE	
SWSD021	PAH	Phenanthrene		U	0.472	μg/L		NE	NE	1011111111
SWSD021	PAH	Pyrene	0.0472		0.0472	μg/L		NE	NE	
SWSD021	PCB ·	Aroclor-1916	0.0952		0.0952	μg/L		0.5	0.09 ^g	
SWSD021	PCB	Arocior-1221	0.0952	U	0,0952	μg/L		0.5	0.09 ^g	
SWSD021	PCB	Aroclor-1232	0.0952	U	0.0952	μg/L		0.5	0.09 ^E	
SWSD021	PCB	Aroclor-1242	0.0952	U	0.0952	μg/L		0.5	0.09 ^E	
SWSD021	PCB	Areclor-1248	0,0952	U	0.0952	μg/L		0.5	0.09^{8}	
SWSD021	РСВ	Aroclor-1254	0,0952	U	0.0952	μg/L		0.5	0.09^{g}	
SWSD021	PCB	Aroclor-1260	0,0952	U	0.0952	μg/L		0.5	0.09 ^g	
SWSD021	Pesticide	4,4'-DDD	0,0377		0.0377	μg/L		NE	0.3	
SWSD021	Pesticide	4,4'-DDE	0,0377		0.0377	μg/L		NE	0.3	
SWSD021	Pesticide	4,4'-DD'I'	0,0377	U	0.0377	µg/L	10000000	NE	0.2	
SWSD021	Pesticide	Aldrin	0,0189	U	0.0189	με/L		NE	ND	
SWSD021	Pesticide	alpha-BHC	0.0189	U	0.0189	μ g /L		NE	0.01	
SWSD021	Pesticide	alpha-Chlordane	0.0189	U	0.0189	µg/L		~ NE	NE	
SWSD021	Pesticide	beta-BHC	0.0189		0,0189	μg/L		NE	0.04	
SWSD021	Pesticide	delta-BHC	0.0189		0.0189	μg/L		NE	0.4	165 (4)
SWSD021	Pesticide	Dieldrin	0,0377		0.0377	µg/L		NE	0.001	
SWSD021	Pesticide	Endosulfan i	0.0189		0.0189	μg/L		NE	NE	(0.10)
SWSD021	Pesticide	Endosulfan II	0,0377		0.0377	μg/L		NE	NE	
SWSD021	Pesticide	Endosulfan sulfate	0.0377		0.0377	μg/L		NE	NE	
SWSD021		Endrin	0.0377		0.0377	μg/L	0.000	2	ND	
SWSD021	\rightarrow	Endrin aldehyde	0.0377		0.0377	μg/L		NE	5	
SWSD021		Endrin ketone	0.0377		0.0377	μg/L		NE	5	
SWSD021		gamma-BHC (Lindane)	0.0189	_	0.0189	μg/L		0.2	0.5	
SWSD021		gamma-Chlordane	0.0189		0.0189	μg/L		NE NE	NE 0.4	
SWSD021		Heptachlor	0.0189		0.0189	μg/L		0.4	0.4	
SWSD021		Heptachlor epoxide	0.0189	_	0,0189	μg/L		0.2	0.3	
SWSD021		Methoxychlor	0.1890		0.1890	μg/L		40	35	
SWSD021	Pesticide	Toxaphene	0.4720	v	0,4720	μg/L			0.06	

Surface Water Location*	PARAMETER*	1	RESULI	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 6/18/2		In v. aac			1	0.0	0.510	-0	63	100
SWSD010	Radiological	Radium-226	0.616	-	0.766	_	0.510	5°	5³ 5³	100
SWSD010	Radiological	Radium-228 Total Radium ^a	0,200 Non-detect	U	0.397	pCi/L pCi/L	0,241	5	5 ³	001 001
SWSD010	Radiological	Thorium-228	-0.039	11	0.299	pCi/L	0.093	15 ^b	NE.	400
SWSD010	Radiological	Thorium-230	0,034	_	0.169		0.082	15 ^b	NE	300
SWSD010	Radiological	Thorium-232	-0.011	-	0.169		0.077	15 ^b	NE	50
311311-313	<u> </u>	Total Thorium ^b	Non-detect	Ť		pCi/L		15 ^b	NE	NE
SWSD010	Radiological	Uranium-234	2,140		0.409	pCi/L	0,826	27°	NE	600
SWSD010	Radiological	Uranium-235	-0.023	U	0.434	pCi/L	0.198	27°	NE	600
SWSD010	Radiological	Uranium-238	2.070		0.409	pCi/L	0,811	27°	NE	600
		Total Uranium ^c	4.210			pCi/L		27°	NE	600
SWSD010	Metal	Aluminum	227		5.0	μg/L		50-200 ^d	NE	
SWSD010	Metal	Antimony	6.2	<u> </u>	0.5	μg/L		6	3	
SWSD010	Metal	Arsenic		U	5.0			10	25	
SWSD010	Metal	Barium	88.4		0.5	μg/I.		2000	1000	
SWSD010	Metal	Beryllium	0.1	U	0.1	μg/L		- 4 	11	
SWSD010	Metal	Boron	534	7.1	40.0	μg/L		NE 6	1000	
SWSD010	Metal	Cadmium	0.11	IJ	0.1	μg/L		MG	NTE	
SWSD010 SWSD010	Metal Metal	Calcium Chromium	172000		200.0	μg/L μg/L	1000000	NE 100	NE 50	
SWSD010	Metal	Cobalt	0.94	i	0.1	μg/L μg/L		NE	NE.	
SWSD010	Metal	Copper	5,8	-	0.1	μg/L		1300	200	
WSD010	Metal	Iron	1190	_	10.0	μg/L		300 ^d	300	
SWSD010	Metal	Lead	2.8		0,5	μg/L		15	25	
SWSD010	Metal	Lithium	29		2.0	μg/L		NE	NE	
SWSD010	Metal	Magnesium	42400		5.0	μg/L		NE	NE,	
SWSD010	Metal	Manganese	250		1.0	μg/L		50 ^d	300	
SWSD010	Metal	Mercury	0.03	U	0.03	μg/L		2	0.7	
SWSD010	Metal	Nickel	7.9		0.5	μg/L		NE.	100	
SWSD010	Metal	Potassium	14700	Ш	80.0	μg/L		NE NE	NE	
SWSD010	Metal	Selenium	1.3		1.0	μg/L		50	10	
SWSD010	Metal	Silver	0.2	Ü	0.2	μg/L		100"	50	
SWSD010	Metal	Sodium	97300		800.0	μg/L		NE NE	20000	
SWSD010	Metal	Thallium Vanadium	0.3	U U	0.3	μg/L		NE	NE 14	
WSD010	Metal Metal	Zinc	21.1	U	3.0 2.6	μg/L μg/L		5000 ^d	14 NE	
WSD010	VOC	1,1,1-Trichloroethane	1.0	ΪΪ	2,0	μg/L μg/L	3.631.666.6	200	5	
WSD010		1,1,2,2-Tetrachlorocthanc	1.0		i	μg/L		NE	5	
WSD010	VOC	1,1,2-Trichlorocthane	1.0	Ü	- 1	μg/L		5	Ī	
WSD010		1,1-Dichloroethane	1.0		1	μg/L		NE	5	
WSD010		1,1-Dichloroethylene	1.0		- 1	μg/L			5	
WSD010 WSD010	VOC VOC	1,2-Dichloroethane	1.0	-	1	μg/L		5	0.6	
WSD010		1,2-Dichlorepropane 2-Butanone	5.0		1 5	μg/L μg/L		NE	NE	
WSD010		2-Hexanone	5.0		5	μg/L		NE	NE	
WSD010		4-Methyl-2-pentanone	3.6		5	μg/L		NE	NE	
WSD010		Acetone	5.6	Ī	5	μg/L		NE	NE	
WSD010		Benzene	1.0		- 1	μg/L		5	l	
WSD010		Bromodichloromethane	1.0		1	μg/L		NE NE	NE	
WSD010 WSD010		Bromoform Bromomethane	1.0		1	μg/L μg/L		NE NE	NE 5	
WSD010		Carbon disulfide	5.0		5	με/L		NE	60	
WSD010		Carbon tetrachloride	1.0		1	μg/L		5	5	
WSD010		Chlorobenzene	1.0		1	μg/L		100	5	
WSD010	VOC	Chloroethane	1.0		-1	μg/L		NE	5	
WSD010		Chloroform	1.0		1 = 1	μg/L		NE NE	7	
WSD010 WSD010		Chloromethane	1.0			μg/L	20034606	NE 70	5	
WSD010 WSD010		cis-1,2-Dichlorocthylene cis-1,3-Dichloropropylene	1.0 1.0	_	1	μg/L μg/L		70 NE	0.4 ^e	
WSD010 WSD010		Ethylbenzene	1.0		1	μg/L μg/L		700	5	
WSD010		Methylene chloride	5.0	_	. 5	μg/L		5	5	
WSD010	VOC	Styrene	1.0	U	1	μg/L	100000	100	5	
WSD010		l'etrachloroethylene	1.0	_	1	μg/L		5	5	
WSD010		Toluene	1.0		1	μg/L		1000	5	
WSD010		trans-1,2-Dichloroethylene	1.0	_	o sa sa d	μg/L		100	5	
WSD010 WSD010		trans-1,3-Dichloropropylene	1,0		in sections d	μg/L	1001000	NE S	0.4°	
WSD010 WSD010		Trichloroethylene Vinyl chloride	1.0 1.0			μg/L μg/L	4.583 (1984)	2	5	
********	 	Xylenes (total)	1.0		Control (Military)	րց/L	**************************************	10000	5	100 Telephone (100 Te

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Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Linit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD010	PAH	Acenaphthene	0.476	Ū	0.476	μg/L,		NE.	NE	
SWSD010	PAH	Acenaphthylene	0.476	U	0,476	μg/L		NE	NE	
SWSD010	PAH	Anthracene	0.476	U	0,476	μg/L		NE,	NE	
SWSD010	PAH	Benzo(a)anthracene	0.0476	U	0.0476	μg/L		NE	NE	
SWSD010	PAH	Benze(a)pyrene	0.0476		0.0476	μg/L		0,2	ND	
SWSD010	PAH	Benze(b)fluoranthene	0.0476		0.0476	μg/L		NE	NE	
SWSD010	PAH	Benzo(ghi)perylene	0.0476		0:0476	μg/I		NE	NE	
SWSD010	PAH	Benzo(k)fluoranthene	0.0238		0.0238	μg/I.		NE	NE	
SWSD010	PAH	Chrysene	0.0476		0.0476	μg/L		NE	NE	
SWSD010	PAH	Dibenzo(a,h)anthracene	0.0476		0.0476	μg/L		NE	NE	
SWSD010	PAH	Fluoranthene	0.0476		0.0476	μg/L		NE	NE	
SWSD010	PAH	Fluorene	0.476		0.476	μg/L		NE	NE	
SWSD010	PAH	Indeno(1,2,3-cd)pyrene	0.0476	_	0.0476	μg/L		NE	NE	
SWSD010	PAH	Naphthalene	0.476	_	0,476	μg/L		NE	NE	
SWSD010	PAH	Phenanthrene	0.476	U	0,476	μg/L	490,000	NE	NE	
SWSD010	PAH	Pyrene	0.0228	7	0.0476	μg/L		NE 0.5	NE	
SWSD010	PCB	Aroclor-1016	0.1	U	0,1	μg/L		0.5	0.09 ^g	
SWSD010	PCB	Aroclor-1221			0,1	μg/L		0.5	0,09 ^g	
SWSD010	PCB	Aroclor-1232	0.1	U	0.1	μg/L		0.5	0.09^{g}	
SWSD010	РСВ	Aroclor-1242	0.1	U	0.1	μg/L		0.5	0.09^{8}	
SWSD010	РСВ	Aroclor-1248	0.1	U	0.1	μg/L		0.5	0,09 ^g	
SWSD010	РСВ	Aroclor-1254	0.1	U	0.1	μg/L		0.5	0,09 ^g	
SWSD010	PCB	Aroclor-1260	0,1	U	0,1	μg/L		0.5	0,09 ^g	
SWSD010	Pesticide	4,4'-DDD	0.192	U	0.192	μg/L		NE	0.3	
SWSD010	Pesticide	4,4'-DDE	0,192	U	0.192	μg/L		NE	0.3	
SWSD010	Pesticide	4,4'-DDT	0.1920	U	0.1920	μg/L		NE	0.2	
SWSD010	Pesticide	Aldrin	0.0962	U	0.0962	μg/L		NE	ND	
SWSD010	Pesticide	alpha-BHC	0.0962	U	0.0962	μg/L		NE	0.01	
SWSD010	Pesticide	alpha-Chlordane	0.0962		0.0962	μg/L		NE	NE	
SWSD010	Pesticide	beta-BHC	0.0962		0.0962	μg/L		NE	0.04	
SWSD010	Pesticide	delta-BHC	0,0962		0.0962	μg/L		NE	0.4	
SWSD010	Pesticide	Dieldrin	0.1920		0.1920	μg/L		NE	0.001	
SWSD010	Pesticide	Endosulfan I	0,0962		0.0962	μg/L		NE	NE	
SWSD010	Pesticide	Endosulfan II	0.1920		0.1920	μg/L	11.000	NE	NE	
SWSD010	Pesticide	Endosulfan suifate	0.1920		0.1920	μg/L	100000000000000000000000000000000000000	NE NE	NE	
SWSD010	Pesticide	Endrin	0,1920		0,1920	μg/L		2	ND	100000
SWSD010	Pesticide	Endrin aldehyde	0,1920	_	0.1920	μg/L		NE NE	5	
SWSD010 SWSD010	Pesticide Particide	Endrin ketone	0,1920		0,1920 0,0962	μg/L		NE 0.2	5 0.5	0812555
SWSD010	Pesticide Pesticide	gamma-BHC (Lindane) gamma-Chlordane	0.0962		0.0962	μg/L		NE	NE	
SWSD010	Pesticide	Heptachlor	0.0962		0.0962	μg/L μg/L		0.4	0.4	
SWSD010	Pesticide	Heptachlor epoxide	0.0962		0.0962	μg/L μg/L		0.4	0.3	
SWSD010	Pesticide	Methoxychlor	0.9620	_	0.9620	μg/L		40	35	
SWSD010	Pesticide	Toxaphene	2,4000		2,4000	μg/L		3	0.06	
C CENTO	I contour	- vaepaelle	2,1000	~	ASSESSMENT OF THE PERSON NAMED IN	46.0	0.00 (0.00	100000000000000000000000000000000000000

Surface Water Location * PARAMETER* ANALYTE RESULTING TIMILS * CONTROL OF CON	Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs***
SWSD011 Radiological Radium-226 0,260 0,599 pCi/L 0,356	5*	5°	100°
SWSD011 Radiological Radium-228 0.44 U 0.473 pCi/L 0.318	5ª	5ª	100"
Total Radium a 0.260 pCi/L	5ª	5ª	100°
SWSD011 Radiological Thorium-228 -0.010 U 0.484 pCi/L 0.202	15 ^b	NE	400
SWSD011 Radiological Thorium-230 0.251 U 0.269 pCi/L 0.240	15 ^h	NE	300
SWSD011 Radiological Thorium-232 0.037 U 0.231 pCi/L 0.106	15 ^b	NE	50
Total Thorium b Non-detect pCi/L	15 ^b	NE	NE
SWSD011 Radiological Uranium-234 1.25 0.190 pCi/L 0.430	27°	NE	600°
SWSD011 Radiological Uranium-235 0.09 U 0.122 pCi/L 0.127	27°	NE NE	600°
SWSD011 Radiological Uranium-238 1.06 0.211 pCi/L 0.399 Total Uranium ^c 2.310 pCi/L pCi/L	27°	NE NE	600°
	50-200 ^d	NE	000
SWSD011 Metal Antimony 5.7 0.5 µg/1.	6	3	
SWSD011 Mctal Arsenic 1.5 U 1.5 µg/L	10	25	
SWSD011 Metal Barium 87.6 0.5 μg/L	2000	0001	
SWSD011 Metal Bcryllium 0.1 U 0.1 μg/L	4	11	
SWSD011 Mctal Boron 496 40.0 µg/L	NE	1000	
SWSD011 Metal Cadmium 0.11 U 0.1 µg/L	5 NE	5 NF	
SWSD011 Metal Calcium 138000 200.0 µg/L SWSD011 Metal Chromium 4.3 J 1.0 µg/L SWSD011 Metal Chromium 4.3 J	100	NE 50	
SWSD011 Mctal Cobalt 0.77 J 0.1 µg/L	NE	NE	
SWSD011 Metal Copper 6 0.2 µg/L	1300	200	
SWSD011 Metal Iron 1460 10.0 µg/L	300 ^d	300	
SWSD011 Mctal Lead 2.3 0.5 μg/L	15	25	
SWSD011 Mctał Lithium 26 2.0 µg/L	NE	NE	
SWSD011 Metal Magnesium 46000 50.0 μg/L	NE	NE.	
SWSD011 Metal Manganese 77.7 1.0 µg/L	50 ^d	300	
SWSD011 Metal Mercury 0.03 U 0.03 μg/L SWSD011 Metal Nickel 6.4 0.5 μg/L	NE NE	0.7 100	
SWSD011 Metal Potassium 13000 800.0 µg/L	NE	NE	-
SWSD011 Metal Selenium 1 U 1.0 µg/L	50	10	
SWSD011 Mctal Silver 0.2 U 0.2 μg/L	100 ^d	50	
SWSD011 Mctal Sodium 69400 800.0 µg/L	NE	20000	
SWSD011 Metal Thallium 0.3 U 0.3 µg/L	2	NE.	
SWSD011 Metal Vanadium 3 U 3.0 μg/L 3.0 μg	NE	14	
SWSD011 Metal Zine 19.4 2.6 µg/L	5000°	NE	
SWSD011 VOC 1,1,1-Trichloroethane 1.0 U 1 μg/L SWSD011 VOC 1,1,2,2-Tetrachloroethane 1.0 U 1 μg/L	NE	5	
SWSD011 VOC 1,1,2-Trichlorocthane 1.0 U 1 µg/L	5	1	
SWSD011 VOC 1,1-Dichlorocthane 1.0 U 1 µg/L	NE	5	
SWSD011 VOC 1,1-Dichloroethylene 1.0 U 1 µg/L	7		
SWSD011 VOC 1,2-Dichlorocthane 1.0 U 1 μg/L SWSD011 VOC 1,2-Dichloropropane 1.0 U 1 μg/L	5	0.6	
SWSD011 VOC 1,2-Dictinotopropane 1.0 1 µg/L	NE	NE	
SWSD011 VOC 2-Hexanone 5.0 U 5 μg/L	NE	NE	
SWSD01! VOC 4-Methyl-2-pcntanone 3.7 J 5 μg/L	NE	NE	
SWSD011	NE 5	NE 1	
SWSD011 VOC Benzene 1.0 U 1 µg/L	NE.	NE.	
SWSD011	NE	NE	
SWSD011 VOC Bromomethanc 1.0 U 1 µg/L	NE	5	
SWSD011 VOC Carbon disulfide 5.0 U 5 μg/L	NE	60	
SWSD011	100	5	
SWSD011 VOC Chlorobenzene 1.0 U 1 µg/L SWSD011 VOC Chloroethane 1.0 U 1 µg/L	NE	5	
SWSD011 VOC Chloroform 1.0 U 1 µg/1.	NE	7	
SWSD011 VOC Chloromethanc 1.0 U I µg/L	NE	5	
SWSD011 VOC cis-1,2-Dichloroethylene 1.0 U 1 µg/1.	70	5	
SWSD011 VOC cis-1,3-Dichloropropylene 1.0 U 11 µg/L	NE	0.4°	
SWSD011 VOC Ethylbenzene 1.0 U 1 µg/L	700	5	
SWSD011 VOC Styrene 1.0 U 1 µg/L	100	5	
SWSD011 VOC Tetrachloroethylene 1.0 U 1 µg/L	5	5	
SWSD011 VOC Toluene 1.0 U 1 μg/1.	1000	5	44.00
SWSD011 VOC trans-1,2-Dichloroethylene 1.0 U 11 µg/L	100	5	
SWSD011 VOC trans-1,3-Dichloropropylene 1.0 U 1 µg/L SWSD011 VOC Trichloroethylene 1.0 U 1 µg/L	NE	0.4°	
SWSD011 VOC Frieddoleshylene 1.0 U 11 µg/L SWSD011 VOC Vinyl chloride 1.0 U 11 µg/L	2	2	
SWSD011 VOC Xylenes (total) 1.0 U 1 µg/L	10000	51	and the second

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Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD011	PAH	Accaphthene	0.476		0.476	μg/L	4 7	NE NE	NE.	I
SWSD011	PAH	Acenaphthylene	0.476		0.476	μg/L	0.000	NE.	NE	
SWSD011	PAH	Authracene	0.476		0.476	μg/L		NE	NE	200
SWSD011	PAH	Benzo(a)anthracene	0.0476		0.0476	<u>дв/L</u> μg/L		NE NE	NE	
SWSD011	PAH	Benzo(a)pyrene	0.0476		0.0476	μg/L		0.2	ND	
SWSD011	PAH	Benzo(b)fluoranthene	0.0476		0.0476	μg/L		NE	NE.	
SWSD011	PAH	Benzo(ghi)perylene	0.0476	_	0.0476	μg/L		NE	NE	
SWSD011	PAH	Benzo(k)fluoranthene	0,0238		0.0238	μg/L		NE	NE	
SWSD011	PAH	Chrysene	0,0476		0.0476	μg/L		NE	NE	
SWSD011	PAH	Dibenzo(a,h)anthracene	0.0476		0,0476	μg/L		NE	NE	0.010 0.000 0.000
SWSD011	PAH	Fluoranthene	0.0476		0.0476	μg/L		NE	NE	100 100 100
SWSD011	PAH	Fluorene	0.476	_	0.476	μg/L		NE	NE	
SWSD011	PAH	Indeno(1,2,3-cd)pyrene	0.0476		0.0476	μg/L		NE	NE	
SWSD011	PAH	Naphthalene	0.476	υ	0.476	μg/L		NE	NE	
SWSD011	РАН	Phenanthrene	0,476	U	0,476	μg/L		NE	NE	
SWSD011	PAH	Pyrene	0,0476	U	0.0476	μg/L		NE	NE	
SWSD011	РСВ	Aroclor-1016	0.0893	บ	0,0893	µg/L		0.5	0.09^{8}	
SWSD011	PCB	Aroclor-1221	0.0893	II.	0.0893	μg/L		0,5	0.09 ^g	
SWSD011	PCB	Aroclor-1232	0.0893	_	0.0893	μg/L		0.5	0.09 ⁸	
SWSD011	PCB	Areclor-1242	0.0893	-	0.0893	μg/L		0.5	0.09 ^E	
SWSD011	PCB	Aroclor-1248	0.0893	-	0.0893	μg/L		0.5	0.09 ^g	
	PCB		0.0893	-				0.5		
SWSD011		Aroclor-1254		U	0.0893	μg/L		0.5	0.09 ⁸	
SWSD011	PCB	Aroclor-1260	0.0893		0,0893	μg/L			0.09 ^g	
SWSD011	Pesticide	4,4'-DDD	0.1790		0.1790	μg/L		NE	0.3	
SWSD011	Pesticide	4,4'-DDE	0.1790		0,1790	μg/L.		NE	0,3 0,2	
SWSD011 SWSD011	Pesticide	4,4'-DDT Aldrin	0.1790 0.0893		0.1790	μg/L,		NE NE	0,2 ND	
SWSD011	Pesticide Pesticide	Aigrin alpha-BHC	0.0893		0.0893	μg/L		NE NE	0,01	
SWSD011	Pesticide	alpha-Chlordane		U	0.0893 0.0893	μg/L. μg/L.		NE NE	NE	
SWSD011	Pesticide	beta-BHC		U	0.0893	μg/L.		NE NE	0.04	
SWSD011		delta-BHC		U	0.0893	µg/L µg/L		NE	0.04	
SWSD011	Pesticide	Dieldrin	0.1790	_	0.1790	μg/L		NE	0.001	100.000.00
SWSD011		Endosulfan I	0,0893	II.	0.0893	μg/L		NE	NE	
SWSD011	Pesticide	Endosulfan II	0.1790	II	0.1790	μg/L		NE	NE	
SWSD011	<u> </u>	Endosulfan sulfate	0.1790		0.1790	μg/L		NE.	NE	
SWSD011		Endrin	0.1790	_	0.1790	μg/L		2	ND	
SWSD011	<u> </u>	Endrin aldehyde	0.1790		0.1790	μg/L		NE	5	
SWSD011		Endrin ketone	0.1790		0.1790	μg/L		NE	5.	
SWSD011		gamma-BHC (Lindane)	0.0893		0.0893	µg/L		0.2	0.5	
SWSD011		gamma-Chlordane	0.0893		0.0893	µg/L		NE	NE	
SWSD011		Heptachlor	0.0893		0.0893	ng/L		0.4	0.4	
SWSD011		Heptachlor epoxide	0.0893		0.0893	µg/L		0.2	0.3	
SWSD011		Methoxychlor	0.8930	Ū	0.8930	μg/L		40	35	
SWSD011	Pesticide	Toxaphene	2.2300	U	2,2300	μg/L	25000000	3	0.06	

Surface Water				QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Location* Sample Date: 6/16/20	PARAMETER*	ANALYTE	RESULT	<u>] O</u>	LĀŻ		<u> 25</u>	도요된	<u> </u>	
*SW-DUP(sws _{D011)}	Radiological	Radium-226	0.635	ΙIJ	0,733	Еіл.	0,497	5ª	5ª	100
SW-DUP(swsport)	Radiological	Radium-228	0.180	+-	0.735		0,312	5	5ª	100
DW DCI(anapoll)	Radiological	Total Radium ^a	Non-detect	۳	0,550	pCi/L	0,512		5ª	100
*SW-DUP(swspoil)	Radiological	Thorium-228	-0.125	U	0,438		0.141	15 ^b	NE	40
*SW-DUP(swsperi)	Radiological	Thorium-230	0.029	-	0,277		0.124	15 ^b	NE	30
*SW-DUP(swsperi)	Radiological	Thorium-232	-0,039	_	0.245		0.086	15 ^b	NE	5
0 // 5 5 2 (5 // 5 // 5 // 5 // 5 // 5 //	7.000	Total Thorium ^b	Non-detect	-		pCi/L		15 ^b	NE	N
*SW-DUP(swsD011)	Radiological	Uranium-234	1,290	 	0.250		0.412	27°	NE	600
*SW-DUP(swsp011)	Radiological	Uranium-235	0.096	U	0.200		0.135	27 ^c	NE	600
*SW-DUP(swsD011)	Radiological	Uranium-238	0.999		0,268		0.369	27 ^c	NE	600
	·	Total Uranium ^c	2,289	_	•	pCi/L		27°	NE	600
*SW-DUP(swspoii)	Metal	Aluminum	268		5,00	μg/L		50-200 ^d	NE	
*SW-DUP(swspa11)	Metal	Antimony	6.1		0,5	μg/L		6	3	
*SW-DUP(swsD011)	Metal	Arsenie	1.5	U	1.5	μg/L		10	25	
*SW-DUP(swsD011)	Metal	Barium	88.9		0.5	μg/L		2000	1000	
SW-DUP(swspati)	Metal	Beryllium	0.1	U	0.1	μg/L		4	11	
SW-DUP(swsd011)	Metal	Beron	499		40.00	μg/L		NE	1000	
SW-DUP(swsp011)	Metal	Cadmium	0.11	U	0.11	μg/L		5	5	
SW-DUP(SWSD611)	Metal	Calcium	138000		200	μg/L		NE	NE	
SW-DUP(SWSD011)	Metal '	Chromium	3.9	_	1	μg/L		100	50	
SW-DUP(swsd011)	Metal	Cobalt	0.75	J	0.1	μg/L		NE.	NE	
SW-DUP(swsdoii)	Metal .	Соррег	6,2	_	0.2	μg/L		1300	200	
SW-DUP(swsD011)	Metal	Iron	1470	_	10.00	μg/L		300 ^d	300	
SW-DUP(swsport)	Metal	Lead	2.4	\vdash	0,5	μg/L		15	25	
SW-DUP(swsport)	Metal	Lithium	26		2	μg/L		NE NE	NE NE	
SW-DUP(swspott)	Metal	Magnesium	48300		50.00	#g/L		NE.	NE	
SW-DUP(SWSD011)	Metal	Manganese	77.9	.,	- 1	μg/L		50 ^d	300	
SW-DUP(swsDell)	Metal	Mercury Nickel	0.03	٥	0.03 0.5	μg/L			0.7 100	
SW-DUP(swsDell) SW-DUP(swsDell)	Metal Metal	Potassium	13500	-	800.00	μg/L μg/L		NE NE	NE NE	
SW-DUP(swsperi)	Metal	Sclenium	1.6	ī.	800.00	μg/L		50	10	
SW-DUP(swsberr)		Silver	0.2		0.2	μg/L		100 ^d	50	
SW-DUP(swsD011)	Metal	Sodium	67900		800	μg/L		NE	20000	
SW-DUP(swsD011)	Metal	Thallium	0.3	IJ	0.3	μg/L		2	NE	
SW-DUP(swsbell)		Vanadium		U	3	ug/L		NE	14	
SW-DUP(swsperi)		Zinc	19.4		2.6	μg/L		5000 ^d	NE	
SW-DUP(swsdoil)		1,1,1-Trichloroethanc	1.0	U	1	μg/L		200	5	
SW-DUP(swsport)	VOC	1,1,2,2-Tetrachloroethane	1.0		-1	μg/L		NE	5	
SW-DUP(swsD011)		1,1,2-Trichloroethane	1.0		1	μg/L		. 5	1	
SW-DUP(swsD011)		1,1-Dichloroethane	1.0	-	1	μg/L		NE	5	200.00
SW-DUP(swsport)		1,1-Dichloroethylene	1.0	$\overline{}$		μg/L		7	5 0.6	
SW-DUP(swsDo11)	VOC VOC	1,2-Dichloroethane 1,2-Dichloropropane	1.0	-	1	μg/L μg/L			1.	
SW-DUP(swsmorr)		2-Butanone	5.0		5	μg/L		NE	NE	200
SW-DUP(swspoii)		2-Hexanone	5.0		- 5	μg/L		NE	NE	200
SW-DUP(swsD011)		4-Methyl-2-pentanone	4.1		5	μg/L		NE	NE	
SW-DUP(swspoii)		Acctone	5.0	Ü	- 5	μg/L		NE	NE	
SW-DUP(swspoii)		Benzene	1.0		1	μg/L		5	1	
SW-DUP(swsn011)		Bromodichloromethane	1.0		1	μg/L		NE	NE	
SW-DUP(swsperi)		Bromoform	1.0		1	μg/L		NE	NE 5	
SW-DUP(SWSD011)		Bromomethane Carbon disulfide	1.0 5.0		1 5	μg/L μg/L		NE NE	. 60	
SW-DUP(swsD011)		Carbon tetrachloride	1.0			μg/L		5	5	
SW-DUP(swspoit)		Chlorobenzene	1.0		1	μg/L		100	5	
SW-DUP(SWSD011)	VOC	Chloroethane	1.0	Ū	1	μg/L		NE	5	
SW-DUP(swspoii)		Chloroform	1.0		1 1000	μg/L		NE	7	
SW-DUP(swspn11)		Chloromethane	1.0		9350 8340	μg/L		NE	5	
		cis-1,2-Dichloroethylene	1.0	_	rago narog i	μg/L		70	5	
SW-DUP(swspoii)		cis-1,3-Dichloropropylene	1,0	_		μg/L		NE	0.4°	
SW-DUP(SWSD011) SW-DUP(SWSD011)		Ethylbenzene Methylene ehloride	1,0 5.0			μg/L μg/L		700	5	
		Methylene chloride Styrene	3.0 1.0		useridiki s	μg/L μg/L		100	5	
SW-DUP(swspaii)		Tetrachieroethylene	1.0		A CONTRACTOR OF THE PERSON NAMED IN COLUMN 1	μg/L μg/L		5	5	100 (100 (100 (100 (100 (100 (100 (100
SW-DUP(swspall)		Foluene	1.0			μg/L		1000	5	
SW-DUP(swspart)		rans-1,2-Dichloroethylene	1.0		1	μg/L		100	5	
SW-DUP(swspaii)		rans-1,3-Dichloropropylene	1.0	U		μg/I.		NE	0.4°	
SW-DUP(swspa11)		Frichloroethylene	• 1.0		1	μg/L		5	. 5	
SW-DUP(swspari)	VOC	Vinyl chloride	1,0		- 1	μg/L		2	2	
SW-DUP(swspair)	VOC 2	Xylenes (total)	1.0	. T	1	μg/L	2000	10000	5 ^f	

	1	ng noo introducinal barron								
Surface Water				QUALIFIER*	Detection or Reporting Limit*	%SLINO	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Location*	PARAMETER*	ANALYTE	RESULT	ō	2 4	<u>Š</u>	2 2 C	Fe Re M	£δ	ă
*SW-DUP(swsd011)	PAH	Acenaphthene	0.472	U	0.472	μg/L	188 188 18	NE	NE	
*SW-DUP(swsdott)	PAH	Acenaphthylene		J	0.472	μg/L		NE	NE	
*SW-DUP(swsd011)	PAH	Anthracene	0,472	D	0.472	μg/L		NE	NE	
*SW-DUP(swsdott)	PAH	Benzo(a)anthracene		b	0.0472	րջ/L		NE	NE	
*SW-DUP(swsd011)	PAH	Benzo(a)pyrene		U	0.0472	μg/L		0.2	ND	
*SW-DUP(swsd@11)	PAH	Benzo(b)fluoranthene		U	0.0472	μg/L		NE	NE	
*SW-DUP(swsb011)	PAH	Benzo(ghi)perylene	0,0472	_	0.0472	μg/L		NE	NE	
*SW-DUP(swsbo11)	PAH	Benzo(k)fluoranthene	0,0236	U	0.0236	μg/L		NE	NE	
*SW-DUP(swsdott)	PAH	Chrysene		Ü	0.0472	μg/L		NE	NE	
*SW-DUP(swsd011)	PAH	Dibenzo(a,h)anthracene		U	0.0472	μg/L		NE	NE	
*SW-DUP(swspeii)	PAH	Fluoranthene	0,0472		0.0472	μg/L		NE	NE	
*SW-DUP(swsd011)	PAH	Fluorene		U	0.472	μg/L		NE.	NE	
*SW-DUP(swsm(t)	PAH	Indeno(1,2,3-cd)pyrene	0.0472		0,0472	μg/L		NE	NE	
*SW-DUP(swsdott)	PAH	Naphthalene		U	0.472	μg/L		· NE	NE	
*SW-DUP(swsport)	PAH	Phenanthrene		U	0.472	μg/L		NE	NE:	0.00
*SW-DUP(swspeii)	PAH	Pyrene	0.0472	U	0,0472	μg/L		NE	NE	
*SW-DUP(SWSD011)	PCB	Aroclor-1016	0.0943	U	0.0943	μg/L		0,5	0.09 ⁸	
*SW-DUP(swsdott)	PCB	Areclor-1221	0.0943	Ç	0.0943	μg/L		0,5	0.09^8	
*SW-DUP(swspott)	PCB	Aroclor-1232	0.0943	U	0.0943	μg/L		0.5	0.09 ^g	
*SW-DUP(swspoil)	РСВ	Aroclor-1242	0,0943	U	0.0943	μg/L		0.5	0.09 ^g	
*SW-DUP(swspoil)	РСВ	Aroctor-1248	0.0943	IJ:	0,0943	μg/L		0.5	0.09 ^g	
*SW-DUP(swsnorr)	РСВ	Aroclor-1254		Ŭ	0.0943	μg/L		0.5	$0.09^{\rm g}$	
*SW-DUP(swsport)	PCB	Aroclor-1260		U	0.0943	μg/L		0.5	0.09 ^g	
*SW-DUP(swsperi)		4,4'-DDD		U	0.1890	μg/L		NE.	0.09	
*SW-DUP(swspen)		4,4'-DDE	0.1890		0.1890	μg/L		NE	0.3	
*SW-DUP(swsport)		4,4'-DDT	0.1890		0.1890	μg/I.		NE	0.2	
*SW-DUP(SWSDOII)	Pesticide	Aldrin	0.0943		0,0943	μg/I		NE	ND	100000000000000000000000000000000000000
*SW-DUP(swspoii)	Pesticide	alpha-BHC	0.0943		0.0943	μg/L		NE	0,01	1000000
*SW-DUP(swspoil)	Pesticide	alpha-Chlordane	0.0943		0.0943	μg/L	181816	NE	NE.	
*SW-DUP(swspoii)	Pesticide	beta-BHC	0.0943	-	0.0943	μg/L		NE	0.04	1000000
*SW-DUP(swspoii)	Pesticide	delta-BHC	0.0943		0.0943	μg/L		NE	0.4	
*SW-DUP(swspoil)	Pesticide	Dieldrin	0.1890		0,1890	μg/L		NE	0.001	
*SW-DUP(swspoii)	Pesticide	Endosulfan I	0.0943	_	0.0943	μg/L		NE	NE	
*SW-DUP(swsD011)	Pesticide	Endosulfan II	0.1890	Ū	0.1890	μg/L		NE	NE	
*SW-DUP(swsD011)		Endosulfan sulfate	0.1890	_	0.1890	μg/L		NE	NE	
*SW-DUP(swsdoil)		Endrin	0.1890	_	0.1890	μg/L		2	ND	
*SW-DUP(swsD011)		Endrin aldehyde	0.1890	U	0.1890	μg/L		NE	5	
*SW-DUP(swsdott)		Endrin ketone	0.1890		0.1890	μg/L		NE	5	
*SW-DUP(swsdo!1)	Pesticide	gamma-BHC (Lindanc)	0.0943		0.0943	μg/L		0.2	0.5	
*SW-DUP(swsdoil)	Pesticide	gamma-Chlordane	0.0943	Ü	0.0943	μg/L		NE	NE	
*SW-DUP(swsd811)	Pesticide	Heptachlor	0.0943	U	0.0943	μg/L		0.4	0.4	
*SW-DUP(swsd011)	Pesticide	Heptachfer epoxide	0.0943	U	0.0943	μg/L		0.2	0.3	
*SW-DUP(swsdott)		Methoxychlor	0.9430	U	0,9430	μg/L		· 40	35	
*SW-DUP(swsd011)	Pesticide	Toxaphene	2.3600	U	2,3600	μg/L		3	0.06	

Sample Date: 6/17/2008 SWSD022 Radiological Radium-226 -0.153 U 0.617 PCi/L 0.265 5ª 5ª 1006					_		т —		<u> </u>		1
SWSD022	Location*				QUALIFIER*	Detection or Reporting Limit*	UNITS*		Sig	NY State Water Quality Stds.**	DOE DCGs**
SWSD022 Badiological Therimary 1,250 0.075 0.775 5 0.00				7							
Total Radiological											
SWSD022 Radiological Thorism 230	SWSD022	Radiological				0.673		0.478			
SWSD022 Ranifological Thorism-330											
SWSD022 Reafological Unanium 234 5.030 0.93 U 0.24 pCM 1.35 NE NE SWSD022 Reafological Unanium 235 0.047 U 0.41 pCM 1.20 27° NE 600° SWSD022 Reafological Unanium 235 0.047 U 0.41 pCM 1.20 27° NE 600° SWSD022 Reafological Unanium 236 5.250 0.664 pCM 1.200 27° NE 600° SWSD022 Reafological Unanium 236 5.250 0.664 pCM 1.200 27° NE 600° SWSD022 Metal Alaminum 1.0200 1.0200 1.0200 27° NE 600° 1.0200					-						
SWSD022 Ratiological Uranium 234 5.000 0.99 GCM 1.37 NE 600					-	 				_	
SWSD022 Radiological Uranism 234 5.030 0.30 0.70 1.230 27 NE 600 1.0	SWSD022	Radiological				0.241		0.121			50
SWSD022 Radiological Urasium 235 0.347 U 0.415 pCH 0.77 77 NB 600					+						
SWSD022 Radiopical Uraniura 238 3.2.50 0.646 CPLI, 1.200 27 NE 600					-			_			-
SWSD022 Metal					+						
SWSD022 Metal Aluminum 636 50 8pl. 50 5000 SR SWSD022 SWSD022 Metal Arsonic 1.5 U 1.5 8pl. 10 2.5	SWSD022	Radiological			-	0,646		1,280		-	600°
SWSD022 Metal			Total Uranium ^c	10,280	<u> </u>		pCi/L		27°	NE.	600°
SWSD022 Metal Arsenie 1.5 U 1.5 µg/L 2000 1000					-	5,0			50-200 ^d	NE	
SWSD022 Metal Barium 67.4 6.5 gg/L 2000 10					-	0.5	μg/Ĺ				
SWSD022 Metal Berytling			Arsenic				μg/L				
SWSD022 Metal Deron 456 20.0 pg.L NF 1000 SWSD022 Metal Cadming 0.11 U 0.1 pg.L 5 5 SWSD022 Metal Cadming 0.01 U 0.1 pg.L 5 5 SWSD022 Metal Cadming 0.00 100.0 Ng/L NE NE NE SWSD022 Metal Cadming 0.57 J 0.1 pg/L 100 50 SWSD022 Metal Cobal 0.77 J 0.1 pg/L 100 50 SWSD022 Metal Copper 7.3 0.2 pg/L 1300 200 SWSD022 Metal Copper 7.3 0.2 pg/L 1300 200 SWSD022 Metal Iron 1000 1.0 pg/L 300 300 0.0 SWSD022 Metal Lend 0.71 J 5 pg/L 15 25 SWSD022 Metal Lithium 9.5 J 20 pg/L NE NE SWSD022 Metal Lithium 9.5 J 20 pg/L NE NE SWSD022 Metal Magassium 22600 SysD022 Metal Magassium 22600 SysD022 Metal Magassium 22600 SysD022 Metal Magassium 2300 SWSD022 Metal Magassium 2300 SWSD022 Metal Magassium 2300 SWSD022 Metal Metal Metal Nickel 3.7 0.3 pg/L NE NE SWSD022 Metal Metal Sickel 3.7 0.3 pg/L Sp/L 2 0.7 SWSD022 Metal Sickel 3.7 0.3 pg/L Sp/L 50 10 SWSD022 Metal Sickel 3.7 0.3 pg/L Sp/L Sp			Barium						2000	1000	
SWSD022			Beryllium		+		μg/L		4		
SWSD022 Metal Claremium 10600 100.0 mg/L NE NF SWSD022 Metal Claremium 6.5 1.0 mg/L NF NE SWSD022 Metal Cloper 7.3 1.0 mg/L 1300 200 SWSD022 Metal Coper 7.3 1.0 mg/L 300° 300 300 SWSD022 Metal Iron 1000 1.0 mg/L 300° 300 300 SWSD022 Metal Lend 0.71 J 5.8 mg/L 15 2.5 SWSD022 Metal Lend 0.71 J 5.8 mg/L 15 2.5 SWSD022 Metal Lend 0.71 J 5.8 mg/L 15 2.5 SWSD022 Metal Magaesium 22600 3.0 mg/L NE NE SWSD022 Metal Magaesium 22600 3.0 mg/L NE NE SWSD022 Metal Magaesium 22600 3.0 mg/L NE NE SWSD022 Metal Magaesium 2300 3.0 mg/L NE NE SWSD022 Metal Metal Matagenica 137 1.0 mg/L 2.0 7.3 300			Boron		_		μg/L		NE	1000	
SWSD022 Metal Cuburt Coburt C	SWSD022			0.11	U	0.1	μg/L		5	5	
SWSD022 Metal Copper 7.3 0.1 pg/L 1300 200	SWSD022	Metal	Calcium	106000		100.0	μg/L		NE.	NE	
SWSD022 Metal Copper 73 C.2 Fg/L 1300 200 150 180	SWSD022	Metal	Chromium	6.5		1.0	μg/L		100	50	
SWSD022 Metal Lon	SWSD022	Metal	Cobalt	0,57	J	0,1	μg/L			NE	
SWSD022 Metal Lindim 9.5 2.0 pg/L NE NE SWSD022 Metal Lindim 9.5 2.0 pg/L NE NE SWSD022 Metal Magacism 22600 5.0 pg/L NE NE NE SWSD022 Metal Magacism 22600 5.0 pg/L NE NI NI NI SWSD022 Metal Magacism 22600 5.0 pg/L NE NI NI NI NI NI NI NI	SWSD022	Metal	Copper	7.3		0.2	μg/L		1300	200	
SWSD022 Metal	SWSD022	Metal	fron	1090		10.0	μg/L		300 ^d	300	
SWSD022 Metal Magness 137 10 µg/L 50° 300 50° 30° 300 50° 30° 30° 30° 30° 30° 30° 30° 30° 30° 3	SWSD022	Metal	Lead	0.71	J	0.5	μg/L		15	25	
SWSD022 Metal Manganess 137 1.0 µg/L 50° 300 SWSD022 Metal Mickel 3.7 0.5 µg/L NIE 100 SWSD022 Metal Nickel 3.7 0.5 µg/L NIE 100 SWSD022 Metal Potassium 4440 800 µg/L NIE NIE SWSD022 Metal Selenium 1 U 1.0 µg/L 50 10 SWSD022 Metal Selenium 1 U 0.0 µg/L 50 10 SWSD022 Metal Selenium 1.0 0.0 2.0 µg/L 100° 50 SWSD022 Metal Selenium 1.5400 80.0 µg/L NIE 20000 SWSD022 Metal Selicium 1.5400 80.0 µg/L NIE 20000 SWSD022 Metal Thallium 0.37 J 3.0 µg/L NIE 20000 SWSD022 Metal Thallium 0.37 J 3.0 µg/L NIE 20000 SWSD022 Metal Thallium 0.37 J 3.0 µg/L NIE 4 SWSD022 Metal Zine 7.9 J 2.0 µg/L SWSD022 Metal Zine 7.9 J 2.0 µg/L SWSD022 VOC 1,1,1-2*Trichloroethane 1.0 U 1.0 µg/L SWSD022 VOC 1,1,2-1*Trichloroethane 1.0 U 1.0 µg/L 200 5 SWSD022 VOC 1,1,2-1*Trichloroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,1-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,2-1*Debroethane 1.0 U 1.0 µg/L NIE 5 SWSD022 VOC 1,2-1*Debroethane 1.0 U 1.0 µg/L NIE NIE SWSD022 VOC 1,2-1*Debroethane 1.0 U 1.0 µg/L NIE NIE SWSD022 VOC 2-1*Brance 5.0 U 5.0 µg/L NIE NIE SWSD022 VOC 2-1*Brance 5.0 U 5.0 µg/L NIE NIE NIE SWSD022 VOC 3-1*Debroethylene 1.0 U 1.0 µg/L NIE NIE NIE SWSD022 VOC 3*Debroethylene 1.0 U 1.0 µg/L NIE	SWSD022	Metal	Lithium	9.5	J	2.0	μg/L		NE	NE	
SWSD022 Metal Micreury Micro	SWSD022	Metal	Magnesium	22600		5.0	μg/L		NE	NE	
SWSD022 Metal Nickel 3.7 0.5 18/L NIE 100	SWSD022	Metal	Manganese	137		1.0	μg/L		50 ^d	300	
SWSD022 Metal Potassium 4440 80.0 pg/L NE NE SWSD022 Metal Silver 0.2 U 0.2 pg/L 100° 50 SWSD022 Metal Silver 0.2 U 0.2 pg/L 100° 50 SWSD022 Metal Stodium I5400 80.0 pg/L NE 20000 SWSD022 Metal Thailium 0.37 0.3 pg/L NE 20000 SWSD022 Metal Vanadium 4.1 J 3.0 pg/L NE 4 SWSD022 Metal Vanadium 4.1 J 3.0 pg/L NE 4 SWSD022 Metal Vanadium 4.1 J 3.0 pg/L NE 14 SWSD022 Metal Vanadium 4.1 J 3.0 pg/L S000° NE SWSD022 VOC 1,1,2.7-firshforethane 1.0 U 10 pg/L 200 S SWSD022 VOC 1,1,2.7-firshforethane 1.0 U 10 pg/L NE S SWSD022 VOC 1,1,2.7-firshforethane 1.0 U J J pg/L NE S SWSD022 VOC 1,1,2.7-firshforethane 1.0 U J J pg/L NE S SWSD022 VOC 1,1,2.5-firshforethane 1.0 U J J pg/L NE S SWSD022 VOC 1,1-1-bichforethylene 1.0 U J J pg/L NE S SWSD022 VOC 1,1-1-bichforethylene 1.0 U J J pg/L NE S SWSD022 VOC 1,2-bichforethane 1.0 U J J pg/L S 1 SWSD022 VOC 1,2-bichforethane 1.0 U J J pg/L S 1 SWSD022 VOC 2.5-bitanone 3.0 U J J pg/L S 1 SWSD022 VOC 2.5-bitanone 3.0 U J J pg/L S 1 SWSD022 VOC 2.5-bitanone 3.0 U J J pg/L NE NE SWSD022 VOC 2.5-bitanone 3.0 U J J pg/L NE NE SWSD022 VOC 2.5-bitanone 3.0 U J J pg/L NE NE SWSD022 VOC 3.5-bitanone 3.0 U J J pg/L NE NE SWSD022 VOC 4-Methyl-2-pentanone 3.0 U J J pg/L NE NE NE SWSD022 VOC 4-Methyl-2-pentanone 3.0 U J J pg/L NE NE NE SWSD022 VOC Broundefinomethane 1.0 U J J pg/L NE NE NE SWSD022 VOC Broundefinomethane 1.0 U J J pg/L NE NE SWSD022 VOC Broundefinomethylene 3.0 U J J pg/L NE S SWSD022 VOC Chlorotenane 1.0 U J J pg/L N	SWSD022	Metal	Mercury	0.03	IJ	0.03	μg/L		2	0.7	
SWSD022 Metal Selenium	SWSD022	Metal	Nickel	3.7	П	0,5	μg/L		NE	100	
SWSD022 Metal Silver	SWSD022	Metal	Potassium	4440	Г	80.0	μg/L		NE	NE	
SWSD022 Metal Sodium	SWSD022	Metal	Selenium	1	U	1.0	μg/L		50	10	
SWSD022 Metal Sodium 15400 80.0 1g/L NF 20000 SWSD022 Metal Thallium 0.37 J 3.0 1g/L NE SWSD022 Metal Vanadium 4.1 J 3.0 1g/L NE 14 SWSD022 Metal Zinc 7.9 L 2.6 1g/L S000° NE SWSD022 VOC 1,1,1-Trichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1,2-Trichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1,2-Trichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1,2-Trichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1-Dichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1-Dichloroethane 1.0 U 1.0 1g/L NE 5 SWSD022 VOC 1,1-Dichloroethylene 1.0 U 1.0 1g/L 7 5 SWSD022 VOC 1,2-Dichloroethane 1.0 U 1.0 1g/L 7 5 SWSD022 VOC 1,2-Dichloroethane 1.0 U 1.0 1g/L 5 0.6 SWSD022 VOC 2,2-Dichloroethane 5.0 U 5.0 1g/L NE NE SWSD022 VOC 2,2-Dichloroethane 5.0 U 5.0 1g/L NE NE SWSD022 VOC 2,2-Dichloroethane 5.0 U 5.0 1g/L NE NE SWSD022 VOC 2,2-Dichloroethane 5.0 U 5.0 1g/L NE NE SWSD022 VOC 2,2-Dichloroethane 5.0 U 5.0 1g/L NE NE SWSD022 VOC 2,2-Dichloroethylene 5.0 U 5.0 1g/L NE NE SWSD022 VOC 3,2-Dichloroethylene 5.0 U 5.0 1g/L NE NE SWSD022 VOC 3,2-Dichloroethylene 5.0 U 5.0 1g/L NE NE SWSD022 VOC 3,2-Dichloroethylene 5.0 U 5.0 1g/L NE NE SWSD022 VOC 3,2-Dichloroethylene 1.0 U 1.0	SWSD022	Metal	Silver	0.2	Ü	0.2	μg/L		100 ^d	50	
SWSD022 Metal Thailium	SWSD022	Metal	Sodium	15400		80,0			NE	20000	
SWSD022 Metal Vanadium	SWSD022	Metal	Thallium	0.37	J	0.3			2	NE	
SWSD022 VOC	SWSD022	Metal	Vanadium	4.1	j	3.0			NE	14	
SWSD022	SWSD022	Metal	Zinc	7.9	J	2.6			5000 ^d	NE	
SWSD022	SWSD022	VOC	1,1,1-Trichloroethane		-	1.0			200		
SWSD022	SWSD022	VOC	1,1,2,2-Tetrachloroethane	1.0	Ü	1.0			NE	5	
SWSD022			1,1,2-Trichloroethane		-	1.0			5	í	
SWSD022					_	A Charles and move a				5	
SWSD022											
SWSD022										0,6	
SWSD022 VOC 2-Hexanone 5.0 U 5.0 µg/L NE NE SWSD022 VOC 4-Methyl-2-pentanone 5.0 U 5.0 µg/L NE NE SWSD022 VOC Acctone 5.0 U 5.0 µg/L NE NE NE SWSD022 VOC Benzene 1.0 U 1.0 µg/L NE NE NE SWSD022 VOC Bromodichloromethane 1.0 U 1.0 µg/L NE NE NE SWSD022 VOC Bromodichloromethane 1.0 U 1.0 µg/L NE NE SWSD022 VOC Bromodichloromethane 1.0 U 1.0 µg/L NE NE SWSD022 VOC Bromomethane 1.0 U 1.0 µg/L NE NE SWSD022 VOC Carbon disulfide 5.0 U 5.0 µg/L NE 60 SWSD022 VOC Carbon disulfide 5.0 U 5.0 µg/L NE 60 SWSD022 VOC Carbon tetrachloride 1.0 U 1.0 µg/L NE 60 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochylene 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Cis-1,2-Dichlorochylene 1.0 U 1.0 µg/L NE 0.4" SWSD022 VOC Styrene 1.0 U 1.0 µg/L NE 0.4" SWSD022 VOC Styrene 1.0 U 1.0 µg/L 1.0 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 1.0 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 1.0 5 SWSD022 VOC Streachlorochylene 1.0 U 1.0 µg/L 1.0 5 SWSD022 VOC Streachlorochylene 1.0 U 1.0 µg/L 1.0 1.			<u> </u>		_						
SWSD022											
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SWSD022 VOC Bromoform 1.0 U 1.0 µg/L NE NE SWSD022 VOC Bromoform 1.0 U 1.0 µg/L NE NE SWSD022 VOC Bromomethane 1.0 U 1.0 µg/L NE SWSD022 VOC Carbon disulfide 5.0 U 5.0 µg/L NE 60 SWSD022 VOC Carbon tetrachloride 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chlorochane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 7 SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Cis-1,3-Dichlorochylene 4.0 1.0 µg/L NE 5 SWSD022 VOC Cis-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Ethylbenzene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Styrene 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Tetrachlorochylene 2.1 3.0 µg/L 5 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Tetrachlorochylene 1.0 U 1.0 µg/L 1.0									.,	1	
SWSD022									NE	NE	
SWSD022	SWSD022	VOC	Bromoform			1.0			NE	NE	161131131
SWSD022	SWSD022	VOC	Bromomethane	1.0	U	1.0	μg/L		NE	5	
SWSD022 VOC Chlorobenzene 1.0 U 1.0 µg/L 100 5						A CHILL CONTINUES			NE		
SWSD022 VOC Chloroform 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chloroform 1.0 U 1.0 µg/L NE 7 SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC Cis-1,2-Dichloroethylene 4.0 1.0 µg/L 70 5 SWSD022 VOC Cis-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Ethylbenzene 1.0 U 1.0 µg/L 700 5 SWSD022 VOC Methylene chloride 5.0 U 5.0 µg/L 5 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Tetrachlorothylene 2.1 1.0 µg/L 5 5 SWSD022 VOC Toluene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,2-Dichloroethylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,2-Dichloroptylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L S 5 S SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L S 5 S SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L S 5 S S SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L S 5 S S SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L 5 5 S S SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L 5 5 S S S SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 5 5 S S S S S S S S									5		486446161
SWSD022 VOC Chloroform 1.0 U 1.0 µg/L NE 7 SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 5 SWSD022 VOC cis-1,2-Dichloroethylene 4.0 1.0 µg/L NE 0.4° SWSD022 VOC cis-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Ethylbenzene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Methylene chloride 5.0 U 5.0 µg/L 5 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Tetrachloroethylene 2.1 1.0 µg/L 100 5 SWSD022 VOC Toluene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 1.0 U 1.0 U 1.0 µg/L 1.0 U						ST.					
SWSD022 VOC Chloromethane 1.0 U 1.0 µg/L NE 5											
SWSD022 VOC cis-1,2-Dichloroethylene 4.0 1.0 µg/L 70 5 SWSD022 VOC cis-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Ethylbenzene 1.0 U 1.0 µg/L 700 5 SWSD022 VOC Methylene chloride 5.0 U 5.0 µg/L 5 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Tetrachloroethylene 2.1 1.0 µg/L 5 5 SWSD022 VOC Toluene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Toluene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,2-Dichloroethylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L 5 5 SWSD022 VOC Trichloroethylene 1.0 U 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2 3 3 3 3 3 3 3					_	The state of the s					
SWSD022 VOC Ethylbenzene 1.0 U 1.0					u			201657			*89844999
SWSD022 VOC Ethylbenzene 1.0 U 1.0 µg/L 700 5 SWSD022 VOC Methylene chloride 5.0 U 5.0 µg/L 5 5 SWSD022 VOC Styrene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC Tetrachlorothylene 2.1 1.0 µg/L 5 5 SWSD022 VOC Toluene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,2-Dichloroethylene 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4 SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L NE 0.4 SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2 3 3 3 3 3 3 3					,						********
SWSD022 VOC Methylene chloride 5.0 U 5.0 µg/L 5 5 5 5 5 5 5 5 5					_			188 558			200000000000000000000000000000000000000
SWSD022 VOC Styrene 1.0 U <								***************************************	700		
SWSD022 VOC Tetrachlorocthylene 2.1 1.0 μg/L 5 5 SWSD022 VOC Toluene 1.0 U 1.0 μg/L 1000 5 SWSD022 VOC trans-1,2-Dichlorocthylene 1.0 U 1.0 μg/L 100 5 SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 μg/L NE 0.4* SWSD022 VOC Trichlorocthylene 1.7 1.0 μg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 μg/L 2 2								0.0000000000000000000000000000000000000	100		
SWSD022 VOC Toluene 1.0 U 1.0 U 1.0 µg/L 1000 5 SWSD022 VOC trans-1,2-Dichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4 lb SWSD022 VOC Trichloroethylene 1.7 lb 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2					Ť				5		
SWSD022 VOC trans-1,2-Dichloroethylene 1.0 U 1.0 µg/L 100 5 SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4 SWSD022 VOC Trichloroethylene 1.7 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2		VOC		1.0	υ	City and a strain a late			1000		
SWSD022 VOC trans-1,3-Dichloropropylene 1.0 U 1.0 µg/L NE 0.4° SWSD022 VOC Trichlorocthylene 1.7 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2				1.0	U				-		
SWSD022 VOC Trichlorocthylene 1.7 1.0 µg/L 5 5 SWSD022 VOC Vinyl chloride 1.0 U 1.0 µg/L 2 2 2						170	-			0.4e	
SWSD022 VOC Vinyl chloride 1.0 U 10 µg/L 2 2		VOC							5		
	SWSD022	VOC	Vinyl chloride	1.0	U	1.0			2		
	SWSD022	VOC	Xylenes (total)	1.0	υŢ	1.0	μg/L		10000	5 ⁴	

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Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD022	PAH	Acenaphthene	0.476		0,476	μg/L		NE	NE	
SWSD022	PAH	Acenaphthylene	0.476	U	0.476	μg/L		NE	NE	
SWSD022	PAH	Anthracene	0,476	U	0,476	μg/L		NE	NE	
SWSD022	PAH	Benzo(a)anthracene	0.0476	U	0.0476	μg/L		NE	NE	
SWSD022	PAH	Benzo(a)pyrene	0.0476	U	0.0476	μg/L		0.2	ND	
SWSD022	PAH	Benzo(b)fluoranthene	0.0476	U	0,0476	μg/L		NE	NE	
SWSD022	PAH	Benzo(ghi)perylene	0.0476		0,0476	μg/L		NE	NE	
SWSD022	PAH	Benzo(k)fluoranthene	0.0238	_	0.0238	μg/L		NE	NE	
SWSD022	PAH	Chrysene	0.0476		0.0476	μg/L		NE	NE	
SWSD022	PAH	Dibenzo(a,h)anthracene	0.0476	-	0.0476	μg/L		NE	NE	
SWSD022	PAH	Fluoranthene	0.0476	_	0.0476	μg/L		NE	NE	
SWSD022	PAH	Fluorene	0.476		0.476	μg/L		NE	NE	
SWSD022	PAH	Indeno(1,2,3-cd)pyrene	0.0476		0,0476	μg/L		NE	NE	
SWSD022	PAH	Naphthalene	0.476		0.476	μg/L		NE	NE	
SWSD022	PAH	Phenanthrene	0.476		0.476	μg/L		NE	NE	
SWSD022	PAH	Pyrene	0.0476		0.0476	μg/L		NE	NE	
SWSD022	РСВ	Aroclor-1016	0.0943		0.0943	μg/L		0.5	0.09 ^g	
SWSD022	PCB	Aroclor-1221	0.0943	U	0,0943	μg/L		0.5	0.09 ⁸	
SWSD022	PCB	Aroclor-1232	0.0943	U	0.0943	μg/L		0.5	0.09 ⁸	
SWSD022	РСВ	Aroclor-1242	0.0943	U	0.0943	μg/L		0.5	0.09 ⁸	
SWSD022	РСВ	Aroclor-1248	0.0943	U	0.0943	μg/L		0.5	0.09 ^g	
SWSD022	РСВ	Aroclor-1254	0.0943	U	0.0943	μg/L		0.5	0.09 ⁸	
SWSD022	PCB	Areclor-1260	0.0943	IJ	0.0943	μg/L		0.5	0.098	
SWSD022	Pesticide	4.4'-DDD		Ū	0.0381	με/L		NE	0.3	
SWSD022	Pesticide	4,4'-DDE	0.0381	Ū	0.0381	µg/L		NE	0.3	
SWSD022	Pesticide	4,4'-DDT	0.0381	U	0.0381	μg/L		NE	0.2	
SWSD022	Pesticide	Aldrin	0.0190	U	0.0190	μg/L		NE	ND	
SWSD022	Pesticide	alpha-BHC	0.0190	U	0.0190	μg/L		NE	0.01	
SWSD022	Pesticide	alpha-Chlerdanc	0.0190	U	0.0190	μg/L		NE	NE	
SWSD022	Pesticide	beta-BHC	0.0190	U	0.0190	μg/L		NE	0.04	
SWSD022	Pesticide	delta-BHC	0.0190		0.0190	μg/L		NE	0.4	
SWSD022	Pesticide	Dieldrin		U	0,0381	μg/L		NE	0.001	
SWSD022	Pesticide	Endosulfan I	0.0190		0,0190	μg/L		NE	NE	
SWSD022		Endosulfan II		Ŭ	0,0381	μg/L		NE	NE	
SWSD022	Pesticide	Endosulfan sulfate	0.0381		0.0381	μg/L		NE	NE	
SWSD022	Pesticide	Endrin		U	0,0381	μg/L		2	ND	182588
SWSD022	Pesticide	Endrin aldehyde	0,0381	_	0.0381	μg/L		NE	5	186456181
SWSD022	Pesticide	Endrin ketone		U	0.0381	μg/L		NE	5	
SWSD022		gamma-BHC (Lindane)	0.0190	_	0.0190	μg/L		0,2	0,5	
SWSD022 SWSD022		gamma-Chiordane	0,0190		0,0190	μg/L		NE	NE 0.4	
SWSD022 SWSD022		Heptachlor	0,0190 0,0190		0.0190 0.0190	μg/L		0.4	0,4	
SWSD022		Heptachlor epoxide Methoxychlor	0,0190	$\overline{}$	0.0190	μg/L		40	35	
SWSD022		Toxaphene	0,1900		0.4760	μg/L		40	0.06	
U II ODUZZ	presuciue	толарисие	0, 4 760	U	U.4/00	μg/L		3	0,06	

		ing 2000 Environmental Burver				-				
Surface Water Location*	PARAMETER ³	· ANALYTE	RESUL 7	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 6/10/2	2008									
SWSD023	Radiological	Radium-226	0,416	5	0.375	pCi/L	0.273	5ª	5ª	100°
SWSD023	Radiological	Radium-228	0.134	ıίυ	0.463	pCi/L	0.267	5ª	5ª	100°
	<u> </u>	Total Radium ^a	0.416	_		pCi/L	.,		5ª	
SWSD023	Radiological	Thorium-228	0.104		0.324	pCi/L	0.186	15 ^b	NE	
		······································		-			-	15 ^b		-
SWSD023	Radiological	Thorium-230	-0.027	-	0.182	pCi/L	0.059		NE	-
SWSD023	Radiological	Thorium-232	0.039	-	0.182	pCi/L	0.093	15 ^b	NE.	
		Total Thorium b	Non-detect	<u> </u>		pCi/L		15 ^b	NE.	NE
SWSD023	Radiological	Uranium-234	1,870	<u>'L</u>	0.074	pCi/L	0,350	27°	NE.	600°
SWSD023	Radiological	Uranium-235	0.051	U	0,106	pCi/L	0.071	27°	NE.	600°
SWSD023	Radiological	Uranium-238	1,400	1	0.074	pCi/L	0,303	27°	NE	600°
		Total Uranium c	3,270			pCi/L		27°	NE	600°
SWSD023	Metal	Aluminum	622	-	5,0	μg/L	40310000	50-200 ^d	NE	800 B
SWSD023	Metal	Antimony	1.8		0.5	μg/L		6	1(1.5	
				-				10	25	
SWSD023	Metal	Arsenic	1.7	-	1.5	µg/L		2000		200000
SWSD023	Metal	Barium	73.7	_	0,5	μg/L		2000	1000	
SWSD023	Metal	Beryllium	0.1	+	0.1	μg/L		4	11	
SWSD023	Metal	Boron	356	-	40.0	μg/L		NE.	1000	
SWSD023	Metal	Cadmium	0,11	+-	0,1	μg/L		5		
SWSD023	Metal	Calcium	170000	L	200.0	μg/L		NE	NE	
SWSD023	Metal	Chromium	2.8	J	1.0	μg/L		100	50	
SWSD023	Metal	Cobalt	1	Π	0.1	ng/L		NE	NE	
SWSD023	Metal	Copper	8.8	 	0.2	μg/L		1300	200	
SWSD023	Metal	Iron	1770	1-	10.0	μg/L		300 ^d	300	
		Lead		-				15		
SWSD023	Metal		3.7	├	0.5	μg/L			25	
SWSD023	Metal	Lithium	28.3	_	2.0	μg/L.		NE.	NE	
SWSD023	Metal	Magnesium	54000	_	50.0			NE_	NE	
SWSD023	Metal	Manganese	262	-	i.0	μg/L		50 ^d	300	
SWSD023	Metal	Mercury	0.03	U	0.03	μg/L		2	0.7	
SWSD023	Metal	Nickel	10.4		0,5	μg/L		NE.	100	
SWSD023	Metal	Potassium	8790	П	80.0	μg/L		NE	NE	
SWSD023	Metal	Selenium	1.4	j	1.0	μg/L		50	10	
SWSD023	Metal	Silver	0.2	П	0.2	μg/L		100 ^d	50	
SWSD023	Metal	Sodium	127000		800.0	μg/L		NE.	20000	
SWSD023	Metal	Thallium	0.46		0.3	μg/L		- 112	NE NE	
SWSD023	Metal	Vanadium		U	3.0			NE.	14	
						μg/L				000000000000000000000000000000000000000
SWSD023	Metal	Zinc	26.2		2.6	μg/L		5000°	NE	
SWSD023	VOC	1,1,1-Trichloroethane	1.0			μg/L		200	5	
SWSD023	VOC	1,1,2,2-Tetrachloroethane		_		μg/L		NE.	5	68000000
SWSD023	VOC	1,1,2-Trichloroethane	1.0			μg/L		5	1	
SWSD023	VOC	1,1-Dichloroethane	1.0		200000	μg/L		NE.	5	
SWSD023	VOC	1,1-Dichloroethylene	1.0			μg/L σ		7	5	
SWSD023	VOC	1,2-Dichlorocthane	1.0	_	1	μg/L	10.6	5	0.6	
SWSD023	VOC	1,2-Dichloropropane	1.0		1	μg/L	100.00	3	1	
SWSD023	VOC	2-Butanone	5.0		5	μg/L		NE.	NE	
SWSD023	VOC	2-Hexanone	5.0		. 5	μg/L		NE NE	NE	
SWSD023	VOC	4-Methyl-2-pentanone	5.0		S CONTRACTOR	μg/L		NE	NE	
SWSD023	VOC	Acetone	5.0		. 5	μg/L		NE NE	NE	
SWSD023	VOC	Benzene	1.0		Li inglisio in secondo de mi	μg/L		5	1	
SWSD023	VOC	Bromodichloromethane	1.0		CONTRACTOR OF THE CONTRACTOR O	μg/L		NE	NE NE	5312355335
SWSD023	VOC	Bromoform	0.1	_		μg/L		NE	NE 5	150 March 150
SWSD023	VOC	Bromonethane	1.0	_		μg/L		NE	5	
SWSD023	VOC	Carbon disulfide	5.0		5	μg/L		NE	60	
SWSD023	VOC	Carbon tetrachloride	1.0			μg/L		5	5	
SWSD023	VOC	Chlorobenzene	1.0	_		μg/L		100	5	
SWSD023	VOC	Chlorocthane	1.0		1415/12/15	μg/L		NE	5	
SWSD023	VOC	Chloroform	1.0	_	25841861AH	μg/L		NE	7	
SWSD023	VOC	Chloromethane	1.0			μg/L		NE	5	C11000
SWSD023	VOC	cis-1,2-Dichloroethylene	1.0	_		μg/L		70	5	400000
SWSD023	VOC	cis-1,3-Dichloropropylene	1.0	_		μg/L		NE	0.4°	
SWSD023	VOC	Ethylbenzene		_		μg/L		700	5	
SWSD023	VOC	Methylene chloride			\$765517H466 5	μg/L		5	5	
SWSD023	VOC	Styrene	1.0			μg/L		100	5	
SWSD023	VOC	Tetrachlorocthylene	1.0	$\overline{}$		μg/L	0.000	. 5	5	
SWSD023	VOC	Toluene	1.0			μg/L		1000	5	
SWSD023	VOC	trans-1,2-Dichloroethylene	1.0	U		μg/L		100	5	
SWSD023	VOC	trans-1,3-Dichloropropylene	1.0	υŢ	Line Strill	μg/L		NE	0,4°	
SWSD023	VOC	Trichloroethylene	1.0		1	μg/L		5	5	
SWSD023	VOC	Vinyl chloride	1.0	υİ	1	μg/L		2	2	
SWSD023	ÝОС	Xylenes (total)	1.0	$\overline{}$	i i	μg/L		10000	5 ^f	
	<u>,</u>	, ,,	1.0		strewers/traditional-bases	CO -	4364359455545			· 1000年1月1日日本

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Surface Water				QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Location*	PARAMETER*	ANALYTE	RESULT				K D			Ω
SWSD023 SWSD023	PAH PAH	Acenaphthene	0,472	U	0.472	μg/i.		NE	NE NE	
SWSD023	PAH	Acenaphthylene Anthracene	0.472		0.472	μg/i		NE	NE NE	
SWSD023	PAH	Benzo(a)anthracene	0.472	_	0,472 0,0472	μg/L		NE NE	NE NE	
SWSD023	PAH	Benzo(a)pyrene	0.0472	-	0.0472	μg/L, μg/L,		0.2-	ND ND	080000
SWSD023	PAH	Benzo(b)fluoranthene	0.0472	_	0.0472	μg/L		NE	NE NE	
SWSD023	PAH	Benzo(ghi)perylene	0.0472	_	0.0412	μg/L		NE.	NE	
SWSD023	PAH	Benzo(k)fluoranthene	0.0236		0.0236	μg/L		NE	NE	
SWSD023	PAH	Chrysene	0.0472	_	0.0472	μg/L		NE	NE	
SWSD023	PAH	Dibenzo(a,h)anthracene	0.0472		0.0472	μg/L		NE	NE	
SWSD023	PAH	Fluoranthene		Ŭ	0.0472	μg/L		NE	NE:	
SWSD023	PAH	Fluorene	-	U	0.472	μg/L		NE	NE	
SWSD023	PAH	Indeno(1,2,3-cd)pyrene	0.0472	U	0.0472	μg/L		NE	NE	10000000
SWSD023	PAH	Naphthalene	0.472	Ü	0,472	μg/L		NE	NE	864 (9618)
SWSD023	PAH	Phenanthrene	0.472	U	0.472	μg/L		NE	NE	
SWSD023	PAH	Pyrene	0.0472	Ü	0.0472	μg/L		NE	NE	
SWSD023	РСВ	Aroclor-1016	0.0893	U	0.0893	µg/L		0.5	0.09 ⁸	
SWSD023	РСВ	Aroclor-1221	0.0893	U	0.0893	μe/L		0,5	0.09 ⁸	0000000
SWSD023	РСВ	Aroclor-1232		П	0.0893	μg/L	100000	0.5	0.09 ⁸	S0000000
SWSD023	РСВ	Aroclor-1242		Ū	0.0893	μg/L		0,5	0.09 ⁸	3000000000
SWSD023	РСВ	Aroclor-1248		U	0,0893	μg/L		0.5	0.09 ^g	
SWSD023	PCB	Aroclor-1254		IJ	0.0893	μg/L		0.5	0.09 ^g	
SWSD023	РСВ	Aroclor-1254 Aroclor-1260	1	U	0.0893			0.5		
SWSD023	Pesticide	4.4'-DDD		IJ.	0.0893	μg/L μg/L		NE NE	0.09 ^g 0.3	400000000000000000000000000000000000000
SWSD023	Pesticide	4,4'-DDE	0.0381		0.0381	μg/L μg/L		NE NE	0.3	44.4
SWSD023		4,4'-DDT	0.0381		0.0381	րg/L		NE	0.3	
SWSD023	Pesticide	Aldrin	0.0381	$\overline{}$	0.0190	μg/L		NE	ND	
SWSD023	Pesticide	alpha-BHC	0.0190		0.0190	μg/L		NE	0,01	10.00
SWSD023		alpha-Chlordane	0.0190		0.0190	μg/L		NE	NE	
SWSD023	Pesticide	beta-BHC	0.0190		0.0190	μg/L		NE	0,04	623332
SWSD023	Pesticide	delta-BHC	0.0190		0.0190	μg/L		NE	0,4	
SWSD023	Pesticide	Dieldrin	0.0381	U	0.0381	μg/L	H-182 (80.0)	NE	0,001	100000
SWSD023	Pesticide	Endosulfan I	0.0949		0.0190	μg/L		NE	NE	
SWSD023	Pesticide	Endosulfan II	0.0381	U	0.0381	μg/L		NE	NE	
SWSD023	Pesticide	Endosulfan sulfate	0.0381	U	0.0381	μg/L		NE	NE	100
SWSD023	Pesticide	Endrin	0.0381	U	0.0381	μg/L		2	ND	
SWSD023	Pesticide	Endrin aldehyde	0,0381	U	0.0381	μg/L		NE	5	
SWSD023		Endrin ketone		U	0.0381	μg/L		NE	5	
SWSD023		gamma-BHC (Lindane)		U	0.0190	μg/L		0.2	0.5	
SWSD023		gamma-Chlordane	0.0190		0.0190	μg/L		NE	NE	
SWSD023		Heptachlor	0.0190		0.0190	μg/L		0.4	0.4	
SWSD023		Heptachlor epoxide	0.0190	$\overline{}$	0.0190	μg/L		0.2	0.3	
SWSD023		Methoxychlor		U	0.1900	μg/L		40	35	
SWSD023	Pesticide	Toxaphene	0,4760	U	0.4760	μg/L		3	0.06	

Surface Water Location*	PARAMETER*		RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 6/13/		L			T		1			
SWSD024	Radiological	Radium-226	0,564		0,315		0,281	5ª		
SWSD024	Radiological	Radium-228	0,289	-	0,504		0,309	5*	5° 5°	
SWSD024	Radiological	Total Radium ^a Thorium-228	0.564	-	0,271	pCi/L pCi/L	0.166	5 ⁸	NE	100
SWSD024	Radiological	Thorium-230	1.430	+	0,271		0.100		NE NE	300
SWSD024	Radiological	Thorium-232	0.040	_	0,177		0.117		NE NE	50
BIIBDOZI	Tructorogical	Total Thorium b	1.430	Ŭ	1 0,2-17	pCi/L	0.117	15 ^h	NE	NE
SWSD024	Radiological	Uranium-234	2.180		0.116	_	0.345	27°	NE	600
SWSD024	Radiological	Uranium-235	0.157	+	0.087	pCi/L	0.105	27°	NE	600
SWSD024	Radiological	Uranium-238	1.630		0.100	pCi/L	0.298	27°	NE	600
		Total Uranium ^e	3.967			pCi/L		27°	NE	600
SWSD024	Metal	Aluminum `	289	_	5.0	μg/L		50-200 ^d	NE	
SWSD024	Metal	Antimony	0.58	-	0.5	μg/L		6	3	
SWSD024	Metal	Arsenic	1.5	-	1,5	μg/L		10	25	
SWSD024	Metal	Barium	59.6	+-	0.5	μg/L		2000	1000	
SWSD024	Metal	Beryllium	0.1	_	0.1	μg/L		4	1000	
SWSD024 SWSD024	Metal Metal	Boron Cadmium	558	_	40.0	μg/L		NE-	1000 5	
SWSD024	Metal	Calcium	0.11 169000	_	0.1 200.0	μg/L μg/L		NE	NE	
SWSD024	Metal	Chromium	3.1	_	1.0	μg/L μg/L		100	50	100
SWSD024	Metal	Cobalt	1.5		0.1	μg/L		NE.	NE.	
SWSD024	Metal	Copper	4		0.2	μg/L		1300	200	
SWSD024	Metal	Iron	2700		10.0	μg/L		300 ^d	300	
SWSD024	Mctal	Lead	0.5	←	0,5	μg/L		15	25	
SWSD024	Metal	Lithium	17.4		2.0	μg/L		NE	NE	
SWSD024	Metal	Magnesium	90100		50.0	μg/L		NE	NE	
SWSD024	Metal	Manganese	1230		10.0	μg/L		50 ^d	300	
SWSD024	Metal	Mcreury	0.03	U	0,03	μg/L		2	0.7	
SWSD024	Metal	Nickel	5	- /-	0.5	μg/L		NE	100	
SWSD024	Metal	Potassium	15100	_	800.0	μg/L		NE	NE	
SWSD024	Metal	Selenium		U	1,0	μg/L		50	10	
SWSD024	Metal	SilverSodium	0,2	_	0.2	μg/L		100 ^d	50	
SWSD024 SWSD024	Metal Metal	Thallium	14700		800.0 0.3	μg/l. μg/L		NE ne	20000 NE	
SWSD024	Metal	Vanadium		U	3.0	րջ/L		NE.	14	
WSD024	Metal	Zinc	18.1	0	2,6	μg/L		5000 ^d	NE.	
WSD024	VOC	1,1,1-Trichloroethanc	1.0	U	2,0	μg/L		200	5	
WSD024	VOC	1,1,2,2-Tetrachloroethanc	1,0	_	1	μg/L		NE	5	
SWSD024	VOC	1,1,2-Trichloroethanc	1.0		1	μg/L		5	1	
SWSD024		1,1-Dichloroethanc	1.0			μg/L		NE.	5	
WSD024 WSD024		1,1-Dichloroethylene 1,2-Dichloroethane	1,0			μg/L		7 5	5 0.6	
WSD024		1,2-Dichloropropane	1.0	_	1	μg/L μg/L			0.0	
WSD024		2-Butanone	5.0		5	μg/L		NE	NE	
WSD024		2-Hexanone	5,0		- 5	μg/L		NE	NE	
WSD024		4-Methyl-2-pentanone	5.0		5	μg/L		NE.	NE	
WSD024		Acctone	5.0			μg/L		NE	NE	
WSD024 WSD024		Benzene Bromodichioromethane	1.0			μg/L		5 NE	NE	
WSD024		Bromofonn	1.0		1	μg/L μg/L		NE NE	NE NE	
WSD024		Bromomethane	1.0			μg/L		NE	5	
WSD024		Carbon disulfide	5.0	υ	- 5	μg/L		NE	60	
WSD024		Carbon tetrachloride	1.0	Ü	1	μg/L		5	5	
WSD024		Chlorobenzene	1.0	_	- 1	μg/L		100	5	
WSD024		Chlorocthane	1.0	_	1	μg/L		NE NE	5 7	
WSD024 WSD024		Chloroform Chloromethane	1.0	_	1	μg/L μg/L		NE NE	5	
WSD024		cis-1,2-Dichloroethylene	1.0		1	μg/L		70	· 5	
WSD024		cis-1,3-Dichloropropylene	1.0	 }	S S S S	μg/L		NE	0.4°	
WSD024	VOC	Ethylbenzene	1.0	U	- in - 1	μg/L		700	5	
WSD024		Methylene chloride	5.0	_	5	μg/L		5	5	
WSD024		Styrene	1.0		ing and 1	μg/L		100	5	
WSD024		l'etrachloroethylene	1.0	\rightarrow	1	μg/L		1000	5	
WSD024 WSD024		l'oluene rans-1,2-Dichloroethylene	1.0		1	μg/L μg/L	1000000	1000	5	
WSD024 WSD024		rans-1,3-Dichloropropylene	1.0	$\overline{}$	1	րց/L	25000000	NE	0,4°	
WSD024 WSD024		l'richloroethylene	1.0		and the second second	μg/L	- 0.000000000	5	5,7	100000000000000000000000000000000000000
WSD024		Vinyl chloride	1.0	_	1	μg/L		2	2	
WSD024		Xylenes (total)	1.0	\rightarrow	1	μg/L		10000	5 ^f	

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	CNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD024	РАН	Acenaphthene	0,476		0.476	μg/L		NE	NE	
SWSD024	PAH	Acenaphthylene	0,476	U	0,476	μg/L		NE	NE	
SWSD024	PAH	Anthracene	0,476	U	0,476	μg/L		NE	NE	
SWSD024	PAH	Benzo(a)anthracene	0.0476	IJ	0,0476	μg/L		NE	NE	
SWSD024	PAH	Bcuzo(a)pyrene	0.0476	U	0.0476	μg/L		0,2	ND	
SWSD024	PAH	Benzo(b)fluoranthene	0.0476	U	0.0476	μg/L		NE	NE	
SWSD024	PAH	Benzo(ghi)perylene	0.0476	Ų	0,0476	μg/L		NE	NE	
SWSD024	PAH	Benzo(k)fluoranthene	0.0238	U	0.0238	μg/L		NE	NE	
SWSD024	PAH	Chrysene	0.0476		0.0476	μg/L		NE	NE	
SWSD024	PAH	Dibenzo(a,h)anthracene	0.0476		0.0476	μg/L		NE	NE	
SWSD024	PAH	Fluoranthene	0.0476		0.0476	μg/L		NE	NE	
SWSD024	PAH	Fluorene	0.476		0.476	μg/l.		NE	NE	
SWSD024	PAH	Indeno(1,2,3-cd)pyrene	0.0476		0.0476	μg/I		NE	NE	
SWSD024	PAH	Naphthalene	0.476		0,476	μg/I		NE	NE	
SWSD024	PAH	Phenanthrene	0.476		0,476	μg/L		NE	NE	
SWSD024	PAH	Pyrene	0.0476		0.0476	μg/L		NE	NE	
SWSD024	PCB	Arocler-1016	0.0952	U	0.0952	μg/L		0.5	0,09 ^g	
SWSD024	PCB	Aroclor-1221	0.0952	U	0.0952	μg/L		0.5	0.09^{g}	
SWSD024	PCB	Arector-1232	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
SWSD024	PCB	Aroclor-1242	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
SWSD024	РСВ	Aroclor-1248	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
SWSD024	РСВ	Aroclor-1254	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
SWSD024	РСВ	Aroclor-1260	0.0952		0.0952	μg/L		0.5	0.09 ^g	
SWSD024	Pesticide	4,4'-DDD	0.0381		0.0381	μg/L		NE	0.3	
SWSD024	Pesticide	4,4'-DDE	0.0381		0.0381	μg/L		NE	0.3	
SWSD024	Pesticide	4,4'-DDT		Ū	0.0381	μg/L		NE	0.2	
SWSD024	Pesticide	Aldrin	0.0190	U	0.0190	μg/L		NE	ND	
SWSD024	Pesticide	alpha-BHC	0.0190	U	0.0190	μg/L		NE	0.01	
SWSD024	Pesticide	alpha-Chlordane	0.0190	U	0.0190	μg/L		NE	NE	
SWSD024	Pesticide	beta-BHC	0.0190	Ū	0.0190	μg/L		NE	0.04	
SWSD024	Pesticide	delta-BHC	0.0190	U	0.0190	μg/L		NE	0.4	
SWSD024	Pesticide	Dieldrin	0.0381		0.0381	μg/L		NE	0.001	
SWSD024	Pesticide	Endosulfan I	0.0190		0.0190	μg/L		NE	NE	
SWSD024	Pesticide	Endosulfan II	0.0381	U	0.0381	μg/L		NE	NE	
SWSD024	Pesticide	Endosulfan sulfate		U	0.0381	μg/L		NE	NE	
SWSD024	Pesticide	Endrin		U	0.0381	μg/L		2	ND	YOUR SE
SWSD024	Pesticide	Endrin aldehyde		U	0.0381	µg/L		NE	5	
SWSD024	Pesticide	Endrin ketone		U	0.0381	μg/L		NE	5	
SWSD024	Pesticide	gamma-BHC (Lindane)	0.0190		0.0190	μg/L		0.2	0.5	
SWSD024	Pesticide	gamma-Chlordane	0.0190		0.0190	μg/L		NE	NE	
SWSD024	Pesticide	Heptachlor	, 0.0190		0.0190	μg/L		0.4	0.4	
SWSD024	Pesticide	Heptachlor epoxide	0,0190	_	0,0190	μg/L		0.2	0.3	
SWSD024		Methoxychlor	0,1900		0.1900	μg/L		40	35	# E
SWSD024	Pesticide	Toxaphene	0.4760	U	0.4760	μg/L			0.06	

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Surface Water Location*	PARAMETER*	1 NI 4 1 V/PE	DECLU 3	QUALIFIER*	Detection or Reporting Limit*	UNITE*	Radiological Uncertainty (±)	Federal Regulations MCLS**	NY State Water Quality Stds.**	,
Sample Date: 6/10 and		JANALITE	RESULT	ΙO	T DR			LEZZ	LZO	L
WDD1	Radiological	Radium-226	0.335	U	0.386	pCi/L	0.262	5ª	· 5*	10
WDD1	Radiological	Radium-228	0,882		0.505	pCi/L	0.375	. 5ª		
		Total Radium ^a	0.882			pCi/L		5ª		
WDD1	Radiological	Thorium-228	0.220	U	0.393	pCi/L	0.268	15 ^b	, NE	40
WDD1	Radiological	Thorium-230	0.057	-	0.334	pCi/L	0.158	15 ^b	NE	30
WDD1	Radiological	Thorium-232	0.075	U	0.428	pCi/L	0.211	15 ^b	NE	- 5
		Total Thorium b	Non-detect	<u> </u>		pCi/L	0	15 ^b	NE	· N
WDD1 WDD1	Radiological	Uranium-234 Uranium-235	0,386 -0.010	TT	0.048	pCi/L	0.165	27° 27°	NE.	600
WDDI	Radiological Radiological	Uranium-238	0.405	U	0.114 0.111	pCi/L pCi/L	0.046 0.173	27°	NE NE	600
וטעיי	Kadiologicai	Total Uranium c	0,791		0.111	pCi/L	0.173	27°	NE NE	- 600
WDDI	Metal	Aluminum	115		5.0			50-200 ^d	NE	
WDD1	Metal	Antimony	2	U	2.0			6	3	
WDD1	Metal	Arsenic	2,8	j	1.5	μg/L		10	25	
WDD1	Mctal	Barium	51		0.5	μg/L		2000	1000	
WDD1	Metal	Beryllium	0.1	U	0,1	μg/L		4	11	
WDD1 WDD1	Metal Metal	Boron Cadmium	305 0,23	1	40.0 0.1	μg/L,		NE 5	1000	
WDD1	Metal	Calcium	87800	,	200,0	μg/L μg/L		NE:	NE	
WDD1	Metal	Chromium	3.2	1	1.0	μg/L μg/L		100	. 50	
WDDI	Metal	Cobalt	4.7	_	0.1	μg/L		NE	NE	
WDD1	Metal	Copper	24.3		0,2	μg/L		1300	200	
WDD1	Metal	Iron	910		10,0	μg/L		300 ^d	300	
WDD1	Metal	Lead	1.3	J	0.5	μg/L		15	25	
WDDI	Metal	Lithium	16,9		2,0	μg/L		NE	, NE	
WDD1	Metal	Magnesium	29900		50,0	μg/L		NE	- NE	
WDD1	Metal	Manganese	445		1,0	μg/L		50 ^d	300	
WDD1	Metal	Mercury	0.03	υ	0.03	μg/L		2	0.7	
WDD1 WDD1	Metal Metal	Nickel Potassium	11,1 101000	_	0.5 800,0	μg/L μg/L		NE NE	100 NE	
WDD1	Metal	Selenium		U	1.0	μg/L μg/L		50	10	
	Metal	Silver	0.2	-	0.2	μg/L		100 ^d	50	
VDD1	Metal	Sodium	43100		800.0	μg/L		NE	20000	
VDDI	Metal	Thallium	0.3	U	0.3	μg/L		2	NE	
VDD1	Metal	Vanadium	3	U	3.0	μg/L		NE	14	
VDDI	Metal	Zine	274	j	2.6	μg/L		5000 ^d	NE	
VDD1	VOC	1,1,1-Trichloroethane	1.0	_	1.0	μg/L		200	5	
VDD1 VDD1	VOC	1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane	1.0 1.0	_	1.0 1.0	μg/L μg/L		NE S	5	
VDDI		1,1-Dichlorocthane	1.0		1.0			NE.	- 1	
VDDI		1,1-Dichloroethylene	1.0		1.0			7	5	
VDD1		1,2-Dichloroethane	1.0	\rightarrow	1.0			5	0.6	
VDD1		1,2-Dichloropropane	1.0		1.0	μg/L		5	1	
VDD1 VDD1		2-Butanone 2-Hexanone	5.0 5.0		5.0 5.0	μg/L μg/L		NE NE	NE NE	
VDDI		4-Methyl-2-pentanone	5.0		5.0	μg/L		NE NE	NE NE	
VDD1		Aceione	5.0		5.0	μg/L		NE	NE	10.55
VDD1		Benzene	1.0	U	1.0	μg/L		5	1	
VDD1		Bromodichloromethane	1.0	-	1.0	μg/L		NE	NE	
VDD1VDD1		Bromoform	1.0		1.0	μg/L		NE	NE NE	
VDD1		Bromomethane Carbon disulfide	5.0	_	1.0 5.0	μg/L μg/L		NE NE	5 60	
		Carbon tetrachloride	1.0		1.0	μg/L		5	- 5	
	VOC	Chlorobenzene	1.0	U	1,0	μg/L		100	5	
		Chloroform	1.0		1,0	μg/L		NE	5	
		Chloroform	1.0		1,0	μg/L		NE NE	7	
		Chloromethane cis-1,2-Dichloroethylene	1.0		1.0	μg/L μg/L	100000	NE 70	5	
		cis-1,3-Dichloropropylene	1.0	_	1,0	μg/L μg/L		NE	0.4°	
	VOC	Ethylbenzene	1.0		1,0	μg/L		700	5	
		Methylene chloride	5.0		5.0	μg/L		5	5	
		Styrene	1.0	_	1.0	μg/L		100	. 5	
		February	1.0		1.0	μ <u>ε</u> /L	18888	5	5	10110
		Foluene rans-1,2-Dichloroethylene	1.0		1.0 1.0	μg/L μg/L	1000000	1000 100	5	100000
		rans-1,3-Dichloropropylene	1.0		1.0	μg/L μg/L		NE	0,4°	10000453
		Trichloroethylene	1.0	_	1.0	<u>μу.</u> L		5	5	0 9 3 2 2 2 3 4 4 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
		Vinyl chloride	1.0		1.0	μg/L		2	2	
		(ylenes (total)	1.0		1.0	µg/L		10000	5 ^f	

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PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	*SLING	Radiological Incertainty (±)	Gederal Regulations MCLs**	VX State Water Quality Stds.**	**\$DOE BOG
		0.472	U					,-, -	
PAH	Acenaphthylene	0.472	Ü	0.472			NE	NE	
PAH	Anthracene			0.472	μg/L		NE	NE	
PAH	Benzo(a)anthracene	0.0472	U	0.0472	μg/L		NE	NE	
PAH	Benzo(a)pyrene	0,0472	U	0,0472	μg/L		0.2	ND	
PAH	Benzo(b)fluoranthene	0,0472	Ų	0.0472	μg/L		NE	NE	
PAH	Benzo(ghi)perylene	0.0472	U	0.0472	μg/L		NE	NE	
PAH	Benzo(k)fluoranthene			0.0236	μg/L		NE	NE	
	Chrysene				μg/L		NE		
			_		μg/L				
			_						
			_						
			_						
	·			-2-2011 Cademination (Variable)					
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	•		_	CONTRACTOR AND ENGINEER					
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				The Asset III at a character of the State					
	Aroclor-1232		_	The state of the s					
PCB	Aroclor-1242	0.0952	U	0.0952	μg/L			0.09^8	
PCB	Aroclor-1248	0.0952	U	0.0952	μg/L		0,5	0.09^8	
PCB	Arecier-1254	0.0952	U	0.0952	μg/L		0.5	9,098	
РСВ	Aroclor-1260	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
Pesticide		0.0360	U	0.0360			NE	0.3	
Pesticide	4,4'-DDE			0.0360	μg/L		NE	0.3	
Pesticide	4,4'-DDT			0.0360	μg/L		NE	0.2	
Pesticide	Aldrin				μg/L		NE		
	<u> </u>			-2021404 2010 2010 202	μg/L		`		
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			_	-XC4-1110T-6#45-4Y-6#C-(40X)-4		3 2 2 2			
							3	0.06	
	PAH	PAH Anthracene PAH Benzo(a)anthracene PAH Benzo(a)pyrene PAH Benzo(b)fluoranthene PAH Benzo(b)fluoranthene PAH Benzo(ghi)perylene PAH Benzo(ghi)perylene PAH Benzo(ghi)perylene PAH Benzo(k)fluoranthene PAH Chrysene PAH Dibenzo(a,h)anthracene PAH Fluoranthene PAH Fluoranthene PAH Phenanthracene PAH Indeno(1,2,3-cd)pyrene PAH Naphthalene PAH Phenanthrene PAH Phenanthrene PAH Porene PAH Aroclor-1016 PCB Aroclor-1021 PCB Aroclor-1221 PCB Aroclor-1232 PCB Aroclor-1242 PCB Aroclor-1242 PCB Aroclor-1246 PCB Aroclor-1254 PCB Aroclor-1256 Pesticide 4,4'-DDE Pesticide 4,4'-DDE Pesticide 4,4'-DDE Pesticide Aldrin Pesticide alpha-BHC Pesticide beta-BHC Pesticide Dieldrin Pesticide Endosulfan II Pesticide E	PAH Acenaphthylene 0.472 PAH Acenaphthylene 0.472 PAH Anthracene 0.472 PAH Benzo(a)anthracene 0.0472 PAH Benzo(a)pyrene 0.0472 PAH Benzo(b)fluoranthene 0.0472 PAH Benzo(k)fluoranthene 0.0472 PAH Chrysene 0.0472 PAH Dibenzo(a,hanthracene 0.0472 PAH Pilooranthene 0.0472 PAH	PAH Acenaphthene 0.472 U PAH Acenaphthylene 0.472 U PAH Anthracene 0.472 U PAH Benzo(a)anthracene 0.0472 U PAH Benzo(a)pyrene 0.0472 U PAH Benzo(b)fluoranthene 0.0472 U PAH Benzo(k)fluoranthene 0.0236 U PAH Chrysene 0.0472 U PAH Dibenzo(a,h)anthracene 0.0472 U PAH Pluoranthene 0.472 U	PAH	PAH Acenaphthylene 0.472 U 0.472 μg/L	PAH	PAH	PAH

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	CNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	77 204
Sample Date: 6/12/20		CONTROL THE PRODUCTION OF THE	KUBOUL		<u> </u>		<u> </u>	LHHZ	2.0	100000000000000000000000000000000000000
WDD2	Radiological	Radium-226	0,311	U	0.387	pCi/L	0.258	5ª	5ª	10
WDD2	Radiological	Radium-228	0,308	U	0.532	pCi/L	0.327	5ª	5ª	
		Total Radium ^a	Non-detect	<u> </u>	, , ,	pCi/L		5ª	. 5ª	
WDD2	Radiological	Thorium-228	0.067	U	0.164		0.100	15 ^b	NE	
WDD2	Radiological	Thorium-230	0,211		0.125	_	0.146	15 ^b	NE	
WDD2	Radiological	Thorium-232 Total Thorium b	0,035	U	0.125	_	0.069	15 ^b	NE.	-
WDD2	Radiological	Uranium-234	0.211 0.890	\vdash	0.081	pCi/L pCi/L	0.223	27°	NE NE	60
WDD2	Radiological	Uranium-235	0.890	\vdash	0.046	•	0.223	27°	NE NE	60
WDD2	Radiological	Uranium-238	0.817		0.048	pCi/L	0.215	27°	NE	60
III DDZ	radiological	Total Uranium c	1.810		0.057	pCi/L	0.270	27°	NE	60
WDD2	Metal	Aluminum	41.9		5.0	-		50-200 ^d	NE	
WDD2	Mctal	Antimony	0.5	Ü	0,5	μg/L		6	3	
WDD2	Metal	Arsenic	1.5	U	1,5	μg/L		. 10	25	
WDD2	Metal	Barium	55.9	_	0.5	μg/L		2000	1000	
	Metal	Beryllium	0.1	U	0.1	μg/I.		4	11	
	Metal Metal	Boron Cadmium	354 0.29	1	40.0 0,1	μg/L		NE 5	1000	
	Metal	Calcium	110000	3	200,0	μg/L		NE.	NE	
WDD2	Metal	Chromium	3.6	J	1.0	μg/L μg/L	3606276	100	50	
	Metal	Cobalt	6.9		0.1	μg/L		NE	NE	
	Metal	Соррег	20.8		0,2	μg/L		1300	200	
	Metal	Iron	843		10.0	μg/L		300 ^d	300	
WDD2	Metal	Lead	1,2	J	0.5	μg/L		15	25	
WDD2	Metal	Lithium	16.6		2.0	μg/L		NE	NE	
WDD2	Metal	Magnesium	37300		50.0	μg/L		NE	NE	
WDD2	Metal	Manganese	168		1.0	μg/L		50 ^d	300	
WDD2	Metal	Mercury	0.03	U	0.03	μg/L		2	0.7	
WDD2	Metal	Nickel	13		0.5	μg/L		NE	100	
VDD2 VDD2	Metal Metal	Potassium Selenium	120000	U	800.0 1.0			NE 50	NE 10	
WDD2	Metal	Silver	0,2		0.2	με/Ե με/L		100 ^d	50	CONTRACTOR OF CASE
WDD2	Metal	Sodium	52400	<u> </u>	800.0	μg/L		NE	20000	
VDD2	Metal	Thatlium	0.3	υ	0.3	μg/L		2	NE	
WDD2	Metal	Vanadium	3	U	3.0	μg/L		NE	14	
VDD2	Metal	Zinc	304	j	2,6	μg/L		5000 ^d	NE	
VDD2	VOC	1,1,1-Trichloroethane	1.0		1	μg/L	0.00	200	5	
VDD2	VOC	1,1,2,2-Tetrachloroethane	1.0	-	n in setting	μg/L		NE NE	5	
VDD2 VDD2	VOC VOC	1,1,2-Trichloroethane 1,1-Dichloroethane	1.0		1	μg/L ng/L		NE	- 1	
		1,1-Dichloroethylene	1,0			μg/L		7	5	
VDD2	VOC	1,2-Dichloroethane	1.0		1	μg/L		5	0.6	
	VOC	1,2-Dichloropropane	1.0		1	μg/L			1	
VDD2		2-Butanone	5,0		5	μg/L		NE NE	NE NE	
VDD2 VDD2		2-Hexanone 4-Methyl-2-pentanone	5,0 5.0			μg/L μg/L		NE NE	NE NE	
VDD2		Acetone	5.0		5	μg/L μg/L		NE	NE	
VDD2		Benzene	1.0	_	1	μg/L		5	1	
YDD2		Bromodichloromethane	1.0	U	1	μg/L		NE	NE	
VDD2		Bromeform	1.0		1	μg/L		NE	NE	
VDD2		Bromomethane	1.0		1	μg/L		NE NE	5	
VDD2 VDD2		Carbon disulfide Carbon tetrachloride	5.0 1.0		5	μg/L μg/L		NE S	60 5	
		Chlorobenzene	1.0	_		μg/L μg/L		100	5	
		Chloroethane	1.0	_		μg/L		NE	5	
		Chloroform	1,0	_	I	μg/L		NE	. 7	
		Chloromethane	1.0	_	1	μg/L		NE 70	5	30.00
		cis-1,2-Dichlorocthylene cis-1,3-Dichloropropylene	1,0 1,0	$\overline{}$	4 (10 (10 (10 (10 (10 (10 (10 (10 (10 (10	μg/L		70 NE	5 0.4 ^e	153.5300
		cis-1,3-Dictitoropropytene Ethylbenzene	1,0	_	i i i i i i i i i i i i i i i i i i i	μg/L μg/L		700	0.4 5	
		Methylene chloride	5.0	_	3	μg/L		5	5	
VDD2	VOC	Styrene	1.0		le di	μg/L		100	5	
		Tetrachlorocthylene	1,0	_	la di di	μg/L			5	
		Toluene	1,0	_	i in the second	μg/L		1000	5	10000
		trans-1,2-Dichloroethylene	1.0	\dashv		μg/L		100	5	1000000
		trans-1,3-Dichloropropylene Trichloroethylene	1,0	_	########### 1	μg/L μg/L		NE 5	0.4°	125.00
		Vinyi chloride	1.0	_	1	μg/L μg/L	*****		2	200
		Xylenes (total)	1.0		CAPPENDATES A	μg/L μg/L		10000	5 ^f	CAS SE

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Surface Water	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Cncertainty (±)	Federal Regulations MCLs**	NX State Water Quality Stds.**	DOE DCGs**
WDD2	PAH	Acenaphthene	0,472	Ű	0,472	μg/L		NE	NE	
WDD2	PAH	Acenaphthylene	0.472	U	0.472	μg/L		NE	NE	State of the
WDD2	PAH	Anthracene	0.472	U	0.472	μg/L		NE	NE	
WDD2	PAH	Benzo(a)anthracene	0.0472	U	0.0472	μg/L		NE	NE	
WDD2	PAH	Венго(а)ругене	0.0472	U	0.0472	μg/L,		0.2	ND	
WDD2	PAH	Benzo(b)fluoranthene	0.0472	U	0.0472	μg/L		NE	NE	
WDD2	PAH	Benzo(ghi)perylene	0.0472		0.0472	μg/L		NE	NE	
WDD2	PAH	Benzo(k)fluoranthene	0.0236	تا	0.0236	μg/L		NE	NE	
WDD2	PAH	Chrysene	0.0472		0.0472	μg/L		NE	NE	
WDD2	PAH	Dibenzo(a,h)anthracene	0.0472		0.0472	μg/L		NE	NE	
WDD2	PAH	Fluoranthene	0.0472		0.0472	μg/L		NE	NE	
WDD2	PAH	Fluorene	0.472		0,472	μg/L		NE	NE	
WDD2	PAH	Indeno(1,2,3-cd)pyrene	0.0472		0.0472	μg/L		NE	NE	
WDD2	PAH	Naphthalene	0.472		0,472	μg/L		NE	NE	
WDD2	PAH	Phenanthrene	0.472		0,472	μg/I.		NE	NE	
WDD2	PAH	Ругене	0.0472		0,0472	μg/L		NE	NE	
WDD2	PCB	Aroclor-1016	0.0943	$\overline{}$	0.0943	μg/L		0.5	0.09 ^g	
WDD2	PCB	Aroclor-1221	0.0943	U	0.0943	μg/L		0.5	0.09 ^g	
WDD2	PCB	Aroclor-1232	0.0943	U	0.0943	μg/L		0.5	0.09^{E}	
WDD2	PCB	Arocier-1242	0.0943	U	0,0943	μg/L		0.5	0.09^{8}	
WDD2	PCB	Aroclor-1248	0.0943	U	0.0943	μg/L		0.5	0,09 ^g	
WDD2	PCB	Arecler-1254	0.0943	U	0.0943	μg/L		0.5	0.09 ^g	
WDD2	PCB	Arcclor-1260	0.0943		0.0943	μg/L		0.5	0.09 ^g	
WDD2	Pesticide	4,4'-DDD	0.0381		0.0381	μg/L		NE	0.3	
WDD2	Pesticide	4,4'-DDE	0.0381		0.0381	μg/L		NE.	0.3	
WDD2	Pesticide	4.4'-DDT	0.0381		0.0381	µg/L		NE	0.2	
WDD2	Pesticide	Aldrin	0.0190		0.0190	jig/L		NE	ND	
WDD2	Pesticide	alpha-BHC	0.0190	U	0.0190	μg/L		NE	0.01	
WDD2	Pesticide	alpha-Chlordane	0.0190	U	0,0190	με/L		NE	NE	
WDD2	Pesticide	beta-BHC	0.0190	U	0.0190	μg/L		NE	0.04	
WDD2	Pesticide	delta-BHC	0.0190	U	0.0190	μg/L		NE	0.4	
WDD2	Pesticide	Dieldrin	0.0381	U.	0.0381	μg/L		NE	0.001	
WDD2	Pesticide	Endosulfan l	0.0190	U	0.0190	μg/L		NE	NE	
WDD2	Pesticide	Endosulfan II	0.0381	U	0.0381	μg/L		NE	NE	
WDD2	Pesticide	Endosulfan sulfate	0.0381		0.0381	μg/L		NE	NE	
WDD2	Pesticide	Endrin	0.0381	_	0.0381	μg/L		2	ND	
WDD2	Pesticide	Endrin aldehyde	0,0381		0,0381	μg/L		NE	5	
WDD2	Pesticide	Endrin ketone	0,0381		0.0381	μg/L	100	NE	5	
WDD2	Pesticide	gamma-BHC (Lindane)	0,0190		0.0190	μg/L		0.2	0.5	
WDD2	Pesticide	gamma-Chlordane	0,0190		0,0190	μg/L		NE	NE	
WDD2	Pesticide	Heptachlor	0,0190		0.0190	μg/L		0.4	0.4	
WDD2	Pesticide	Heptachlor epoxide	0,0190	$\overline{}$	0.0190	μg/L		0.2	0.3	
WDD2	Pesticide	Methoxychlor	0,1900		0,1900	μg/L		40	35	
WDD2	Pesticide	Toxaphene	0.4760	U	0.4760	μg/L	100000000000000000000000000000000000000	3	0.06	200

Table 6

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 6/12/		ACCEPTE	KESOD.	10	1 — H H		I H P	LERZ	2.0	<u> </u>
WDD3	Radiological	Radium-226	0.158	υ	0.366	pCi/L	0.217	5ª	5ª	100
WDD3	Radiological	Radium-228	0.307	Ų	0.531	pCi/L	0.327	5ª	5ª	100
		Total Radium ^a	Non-detect			pCi/L		5°	5ª	100
WDD3	Radiological	Thorium-228	0.142	U	0.509	pCi/L	0.285	15 ^b	NE	40
WDD3	Radiological	Thorium-230	-0.058	_	0.274		0.096	15 ^b	NE	30
WDD3	Radiological	Thorium-232	-0.053	U	0.292		0.099	15 ^b	NE	5
	In 11 1 1	Total Thorium b	Non-detect	-		pCi/L	0.005	15 ^b	NE	N
WDD3 WDD3	Radiological Radiological	Uranium-234	1,200	-	0.114	pCi/L pCi/L	0.275	27° 27°	NE NE	600
WDD3	Radiological	Uranium-235 Uranium-238	0,062		0.110	pCi/L	0.077 0.232	27°	NE	600
WDD3	Ikadiological	Total Uranium c	2.058		0.077	pCi/L	0,232	27°	NE	600
WDD3	Metal	Aluminum	79.5	—	5,0			50-200 ^d	NE	
WDD3	Metal	Antimony		U	2.0	μg/L		6	3	
WDD3	Metal	Arsenic	1.5		1.5	μg/L		10	25	
WDD3	Metal	Barium	58.5	Ĺ.,	0.5	μg/L		2000	1000	
WDD3	Mctal	Beryllium	0.1	U	0.1	μg/L		4	11	
WDD3	Metal	Boron	339		40.0	μg/L		NE	1000	
WDD3	Metal	Cadmium	0.42		0.1	μg/L		5	5	
WDD3	Mctal	Calcium	108000	_	200.0	μg/L		NE 100	NE	
WDD3	Metal	Chromium	3.3		1.0	μg/L		100	50 NE	
WDD3 WDD3	Metal Metal	Cobalt	20,5	\vdash	0.1	μg/L		NE. 1300	200	
WDD3	Metal	Copper Iron	869	_	10.0	μg/L μg/L		300 ^d	300	
WDD3	Metal	Lead	1.4	1	0.5	μg/L		15	25	
WDD3	Metal	Lithium	16.4	,	2.0	μg/L		NE	NE	
WDD3	Metal	Magnesium	36900		50.0			NE	NE.	
WDD3	Metal	Manganese	138		1.0	μg/L		50 ^d	300	
WDD3	Metal	Mercury	0.03	U	0.03	μg/L		2	0.7	
WDD3	Metal	Nickel	13,2		0,5	μg/L		NE	100	
WDD3	Metal	Potassium	113000		800.0	μg/L		NE	NE	
WDD3	Metal	Selenium	1	U	1.0	μg/L		50	10	
WDD3	Metal	Silver	0.2	U	0.2	μg/L_	10000000	100°	50	
WDD3	Metal	Sodium	51400		800.0	μg/L	10,000	NE NE	20000	10001231
WDD3	Metal	Thallium	0,3		0.3	μg/L		2	NE	
WDD3 WDD3	Metal Metal	Vanadium Zinc	306	Ü	3.0	μg/L	6 8 8 8	NE 5000 ^d	14 NE	5000000000
WDD3	VOC	1,1,1-Trichloroethane	1.0		2.6 1.0	μg/L μg/L		200	NE 5	
WDD3	VOC	1,1,2,2-Tetrachloroethane	1.0	_	1.0	μg/L		NE	5	
WDD3	VOC	1,1,2-Trichlorocthane	1.0	_	1.0	μg/L			1	
VDD3		1,1-Dichlorocthane	1.0		1.0			NE	5	
VDD3		1, 1-Dichloroethylene	1.0		1.0			7	5	
VDD3 VDD3		1,2-Dichloroethane 1,2-Dichloropropane	1.0	$\overline{}$	1.0 1.0	μg/L μg/L		5	0.6	
VDD3		2-Butanone	5.0		5.0	µg/L µg/L		NE.	NE	-
VDD3		2-Hexanone	5.0		5.0	μg/L		NE	NE	
VDD3		4-Methyl-2-pentanone	5.0	Ü.	5.0	μg/L		NE	NE	
VDD3		Acetone	5.0		5.0	μg/L		NE	NE	
VDD3		Benzene	1.0		1.0	μg/L		5	1	
VDD3 VDD3		Bromodichloromethane Bromoform	1.0		1.0	μg/L μg/L		NE NE	NE NE	
VDD3		Bromomethane	1,0		1.0	μg/L μg/L		NE	5	
VDD3	VOC	Carbon disulfide	5.0		5.0	μg/L		NE	60	
VDD3	VOC	Carbon tetrachloride	1.0	U	1.0	μg/L		5	5	
VDD3	VOC	Chlorobenzene	1.0		1.0	μg/L		100	5	
VDD3		Chloroethane	1.0		1.0	μg/L		NE	5	
VDD3 VDD3	VOC VOC	Chloroform Chloromethano	1.0		1.0	μg/L μg/L		NE NE	7 5	
VDD3		cis-1,2-Dichloroethylene	1.0	_	1.0	μg/L		70	5	
VDD3		cis-1,3-Dichloropropylene	1.0	_	1,0	μg/L		NE	0.4°	
VDD3		Ethylbenzene	1,0		1.0	μg/L		700	5	
VDD3		Methylene chloride	5.0		5.0	μg/L		5	5	
VDD3		Styrene	1.0	_	1.0	μg/L	1111111111	100	5	
VDD3		Tetrachloroethylene	1.0		1.0	μg/L		1000	5 5	
/DD3 /DD3		Foluene trans-1,2-Dichloroethylene	1,0		1.0 1.0	μg/ե μg/ե		1000	5	e SENARO
VDD3		trans-1,2-Dichloropropylene	1,0	_	1.0	μg/L μg/L		NE	0.4°	CRECKES!
VDD3		Trichloroethylene	1.0	_	1.0	μg/L	1000000	INE 5	5	# 250 kilo)
/DD3		Vinyl chloride	1.0		1.0	μg/L		2	2	
/DD3		Xylenes (total)	1.0		1.0	μg/l,		10000	51	

Surface Water				QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Location*	PARAMETER*	ANALYTE	RESULT	S	Reg Pet	3	L & C	5 5 X	Š Ž	8
WDD3	PAH	Acenaphthene	0.476		0.476	μg/L		NE	NE	
WDD3	PAH	Acenaphthylene	0.476	U	0,476	μg/L		NE	NE	
WDD3	PAH	Anthracene	0.476	U	0.476	μg/L		NE	NE	
WDD3	PAH	Benzo(a)antiracene	0.0476	U	0.0476	μg/L		NE	NE	
WDD3	PAH	Benzo(a)pyrene	0.0476	U	0.0476	μg/L		0.2	ND	
WDD3	PAH	Benzo(b)fluoranthene	0,0476	כ	0.0476	μg/L		NE	NE	
WDD3	PAU	Benzo(ghi)perylene	0,0476	۳	0.0476	μg/L		NE	NE	
WDD3	PAH	Benzo(k)fluoranthene	0.0238		0.0238	μg/L		NE	NE	
WDD3	PAH	Chrysene	0,0476		0.0476	μg/L		NE	NE	
WDD3	PAH	Dibenzo(a,h)anthracene	0.0476		0.0476	μg/L		NE	NE	
WDD3	PAH	Fluoranthene	0,0476		0,0476	μg/L		ŊE	NE	
WDD3	PAH	Fluorene	0.476		0,476	μg/L		NE	NE	
WDD3	PAH	Indeno(1,2,3-cd)pyrene	0.0476		0.0476	μg/L		NE	NE	
WDD3	PAH	Naphthalene	0.476		0,476	μg/L		NE	NE	
WDD3	PAH	Phenanthrene	0.476		0.476	μg/L		NE	NE	
WDD3	PAH	Pyrene	0,0476		0.0476	μg/L,		NE	NE	
WDD3	PCB	Aroclor-1016	0.0952	U	0,0952	μg/L		0.5	0,09 ^g	
WDD3	PCB	Areclor-1221	0.0952	U	0.0952	μg/L		0.5	0.09 ^g	
WDD3	PCB	Aroclor-1232	0.0952	U	0,0952	μg/L		0.5	0.09 ^g	
WDD3	PCB	Aroclor-1242	0.0952	V	0.0952	μg/L		0.5	0.09 ^g	
WDD3	PCB	Aroclor-1248	0,0952	U	0.0952	μg/L		0.5	0.09 ^g	
WDD3	PCB	Aroclor-1254	0.0952	[]	0.0952	μg/L		0.5	0.09 ^g	
WDD3	PCB	Aroclor-1260	0.0952	_	0.0952	μg/L		0.5	0.09g	
WDD3	Posticide	4,4'-DDD		Ŭ	0.0381	μg/L		NE	0.3	
WDD3	Pesticide	4,4'-DDE		Ŭ	0.0381	µg/L		NE	0.3	
WDD3	Pestieide	4.4'-DDT	0,0381	_	0.0381	μg/L		NE	0.2	
WDD3		Aldrin	0,0190		0.0190	μg/L		NE	ND	
WDD3	Pesticide	alpha-BHC	0.0190	_	0.0190	μg/L		NE	0.01	
WDD3	Pesticide	alpha-Chlordane	0,0190	U	0.0190	μg/L		NE	NE	
WDD3	Pesticide	beta-BHC	0.0190	U	0,0190	μg/L		NE	0.04	
WDD3	Pesticide	delta-BHC	0.0190	U	0.0190	μg/L		NE	0.4	
WDD3	Pesticide	Dieldrin	0.0381	U	0.0381	μg/L		NE	0.001	
WDD3	Pesticide	Endosulfan I	0.0190	U	0.0190	μg/L		NE	NE	
WDD3	Pesticide	Endosulfan II	0.0381	U	0.0381	μg/L		NE	NE	
WDD3	Pesticide	Endosulfan sulfate	1880.0	U	0.0381	μg/L		NE	NE	
WDD3	Pesticide	Endrin	0.0381	U	0.0381	μg/L		2	ND	
WDD3	Pesticide	Endrin aldehyde		U	0.0381	μg/L		NE	5	
WDD3		Endrin ketone		U	0.0381	μg/L		NE	5	
WDD3		gamma-BHC (Lindanc)	0.0190	_	0.0190	μg/L		0.2	0.5	
WDD3		gamma-Chlordane	0.0190		0.0190	µg/L	400000	NE	NE	
WDD3		Heptachlor	0.0190	_	0.0190	μg/L	14151000	0.4	0.4	
WDD3		Heptachlor epoxide	0.0190	-	0.0190	μg/L	3348 S 1 6 5 -	0.2	0.3	
WDD3		Methoxychlor	0.1900		0.1900	μg/L		40	35	16.001
WDD3	Pesticide	Toxaphene	0.4760	U	0.4760	µg/L		3	0.06	

Table 6

NFSS Spring 2008 Environmental Surveillance Program Findings for Surface Water

Pocettion or Reporting Limit* UALIFIER* Undertainty (+)	Federal Regulations MCLs**	NX State Water Quality Stds.**	DOE DCGs**
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*Surface Water Location

SWSD009 and SWSD021 - Site Background

SW-DUP (SWSD011) - Field Duplicate of surface water and sediment location SWSD011

*PARAMETER

VOC - Volatile Organic Compound

PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

*UNITS

pCi/L - picocuries per liter

μg/L - micrograms per liter (ppb)

*OUALIFIER

Validated Qualifier: J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

*Detection or Reporting Limit

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Metal) - Method Detection Limit

Organic (VOC, PAH, PCB and Pesticides) - Reporting Limit (gray shading)

35.181.180

** Surface Water at NFSS is not a drinking water source.

The above federal and state regulation concentrations are for comparative purposes only.

Federal Regulations:

National Primary Drinking Water Regulations 40CFR141.62&63

US Dept of Energy

USDOE derived concentration guide (USDOE Order 5400.5) for drinking water,

New York State:

New York State Standards -Water Quality Criteria (class GA) per 6 NYCRR, Part 703.

NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228
- b. "Adjusted" gross alpha MCL of 15 pCi/L, including Thorium isotopes, excluding radon and uranium
- -National Primary Drinking Water Regulations; Radionnelide; Final Rule (Federal Register -December 7, 2000)
- c. Sum of Uranium Isotopes (27 pCi/L or 30 µg/L).
- d. National Secondary Drinking Water Regulations (40CFR143.3)
- c. Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.
- $f. \ Not \ a \ sum \ total \ for \ Dimethyl \ Benzene \ (Xylene) \ , applies \ to \ 1,2--Xylene, \ 1,3-Xylene \ and \ 1,4-Xylene \ individually.$
- g. Sum of Aroclors (polychlorinated biphenyls)

		1	1	τŬ	1	igs for			
Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 10/3		D 11 00/		i ik	0.505	0.4	ca .	-a	100
SWSD009	Radiological	Radium-226	0.281		0.505		5°	5°	100
SWSD009	Radiological	Radium-228	0.203	_	0,780	-	5ª	5a	100
		Total Radium °	0.484	-		pCi/L	5ª	5ª	100
SWSD009	Radiological	Thorium-228	0.029	-	0.234	_	15 ^b	NE	400
SWSD009	Radiological	Thorium-230	-0,015	U	0,246	pCi/L	15 ^h	NE	300
SWSD009	Radiological	Thorium-232	-0.023	U	0.171	pCi/L	15 ^b	NE	50
		Total Thorium ^b	Non-detect			pCi/L	15 ^b	NE	NE
SWSD009	Radiological	Uranium-234	4.400		0.151	pCi/L	27°	NE	600
SWSD009	Radiological	Uranium-235	0.197	Ш.	0.187	pCi/L	27°	NE	600
SWSD009	Radiological	Uranium-238	4.080		0.151	pCi/L	27°	NE	600
	-	Total Uranium ^e	8.677			pCi/L	27°	NE	600
SWSD009	Metal	Aluminum	2210	Π	5	μg/L	50-200 ^d	NE	
SWSD009	Metal	Antimony	2.0		0.5	μg/L	6	3	
SWSD009	Metal	Arsenic	2,3	J	1.5	μg/L	10	25	
SWSD009	Metal	Barium	84.4	1	0.5	μg/L	2000	1000	
SWSD009	Metal	Beryllium	0.1		0.1	μg/L	4	11	
SWSD009	Metal	Boron	531,0	Г	20.0	μg/L	NE	1000	
SWSD009	Metal	Cadmium	0.2	j	0.1	μg/L	5	5	
SWSD009	Metal	Calcium	204000	-	100	μg/L	NE	NE	
SWSD009	Metal	Chromium	6.8		1.5	μg/l,	100	50	
SWSD009	Metal	Cobalt	1.8	-	0.1	μg/L	NE	NE	
SWSD009	Metal	Copper	10.9	H	0.3	μg/L	1300	200	
SWSD009	Metal	Iron	3880	H	10	μg/L	300 ^d	300	
SWSD009	Metal	Lead	8,2	H	0.5	μg/L	15	25	
SWSD009	Metal	Lithium	23.0		2.0	μg/L μg/L	NE.	NE	
SWSD009	Metal		63100.0	-	26.0		NE	NE	
	Metal	Magnesium		-		μg/L	50 ^d		
SWSD009		Manganese	119.0	_	5.0	μg/L	20	300	0000000000
SWSD009	Metal	Mercury	0.1	U	0.1	μg/L	2	0.7	
SWSD009	Metal	Nickel	9,2	┢	0.5	μg/L	NE	100	
SWSD009	Metal	Potassium	5940	-	80	μg/L	NE SO	NE 10	
SWSD009	Metal	Selenium	1.7	_	1,0	μg/L	50	10	
SWSD009	Metal	Silver	0.2	U	0.2	μg/L	100 ^d	50	
SWSD009	Metal	Sodium	164000	-	400	μg/L	NE	20000	
SWSD009	Metal	Thallium	0.3		0,3	μg/L	2	NE	
SWSD009	Metai	Vanadium	5.5	J	3.0	μg/L	NE	14	
SWSD009	Metai	Zinc	48.7	_	2.6	μg/L	5000 ^d	NE	
SWSD009	+	1,1,1-Trichloroethane	1.00	_	1,00	μg/L	200	5	
WSD009	VOC	1,1,2,2-Tetrachloroethane	1.00		1.00		NE	5	
SWSD009		1,1,2-Trichloroethane	1.00		UNITED STATES OF THE STATES OF	1.05	5	1	
SWSD009 SWSD009		1,1-Dichloroethane	1,00	-	1,00	μg/L	NE	5	
WSD009	VOC VOC	1,1-Dichlorosthylene	1.00	_	1.00	μg/L	7	5	
WSD009		1,2-Dichlorocthane 1,2-Dichloropropane	1,00		1,00 1.00	μg/L μg/L		0.6	44 65 66
WSD009		1,2-Dienioropropane 2-Butanone	5,00		1,00 5.00	µg/∟ µg/L	NE	NE	
WSD009		2-Hexanone	5.00		5.00	μg/L μg/L	NE NE	NE NE	
WSD009		4-Methyl-2-pentanone	5.00		5.00	μg/L μg/L	NE NE	NE NE	
WSD009		Acetone	5.00	-	5.00	μg/L μg/L	NE	NE	
WSD009		Benzene	1.00		1.00	μg/L	5	1	
WSD009		Bromodichloromethane	1.00		1,00	μg/L	NE	NE	0600000000
WSD009	-	Bromoform	1.00	_	1.00	μg/L	NE	NE	
WSD009	4	Bromomethane	1.00	_	1.00	µg/L	NE	5	
WSD009	VOC	Carbon disulfide	5.00	U	5,00	μg/l.	NE	60	
WSD009	VOC	Carbon tetrachloride	1.00	Ü	1,00	μg/L	5	5	
WSD009	VOC	Chlorobenzene	1.00	U	1.00	μg/L	100	5	
WSD009	VOC	Chloroethanc	00.1		1,00	μg/L	NE	5	
WSD009		Chloroform	1,00	_	1,00	μg/L	NE	7	
WSD009		Chloromethane	1.00	_	1.00	μg/L	NE	5	
WSD009		cis-1,2-Dichloroethylene	1.00	_	1.00	μg/I,	70	5	
WSD009		cis-1,3-Dichloropropylene	1,00	$\overline{}$	1,00	μg/L	NE	0.4°	
WSD009		Ethylbenzene	1.00	\rightarrow	1,00	µg/L	700	5	
WSD009		Methylene chloride	10.00	_	10.00	μg/L	5	5	
WSD009		Styrene	1,00	_	1.00	μg/L	100	5	
WSD009		Tetrachloroethylene	2.00	-	2,00	μg/L	5	5	11169 49
WSD009	•	Tolucne	1.00		1.00	μg/L	1000	5	
WSD009		trans-1,2-Dichloroethylene	1.00	_	1,00	μg/L	100	5	
WSD009		rans-1,3-Dichloropropylene	1,00	_	1.00	μg/L	NE	0.4°	
WSD009		Frichloroethylene	1.00		1,00	μg/L	5	5	
WSD009	1	Vinyl chloride	1,00		1.00	μg/l,	2	2	
WSD009	voc	Xylenes (total)	1.00	ıπ	1,00	μg/L	10000	5 ^f	

Table 7-1

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD009	PAH	Acenaphthene	0,472		0.472	μg/L	NE	NE	
SWSD009	PAH	Accnaphthylene	0.472	U	0.472	μg/L	NE	NE	
SWSD009	РАН	Anthracene	0.472	U	0,472	μg/L	NE	NE	
SWSD009	РАН	Benzo(a)anthracene	0.047		0.047	μg/L	NE	NE	
SWSD009	PAH	Benzo(a)pyrene	0.047		0.047	μg/L	0.2	NE	1.69
SWSD009	PAH	Benzo(b)fluoranthene	0.047		0.047	μg/L	NE	NE	
SWSD009	РАН	Benzo(ghi)perylene	0,047	U	0.047	μg/L	NE	NE.	
SWSD009	PAH	Benzo(k)fluoranthene	0.024		0,024	μg/L	NE	NE	
SWSD009	PAH	Chrysene	0.047		0,047	μg/L	NE	NE.	
SWSD009	PAH	Dibenzo(a,h)anthracene	0,047		0.047	μg/L	NE NE	NE	
SWSD009	PAH	Fluoranthene	0.047	-	0.047	μg/L	NE	NE	
SWSD009	PAH	Fluorene	0.472	_	0,472	μg/L	NE	NE	
SWSD009	PAH	Indeno(1,2,3-cd)pyrene	0.047		0.047	μg/L	NE	NE	
SWSD009	PAH	Naphthalene	0.472	_	0,472	μg/L,	NE	NE	
SWSD009	PAH	Phenanthrene	0,472		0.472	μg/L	NE	NE.	
SWSD009	PAH	Pyrenc	0,047	U	0.047	μg/L	NE	NE	
SWSD009	РСВ	Areclor-1016	0.094	Ū	0.094	μg/L	0.5	0.09	
SWSD009	PCB	Aroclor-1221	0.094	Ū	0.094	μg/L	0.5	0.098	
SWSD009	PCB	Aroclor-1232	0.094	U	0,094	μg/L	0.5	0.09 ^g	
SWSD009	РСВ	Aroclor-1242	0.094	13	0.094	μg/L	0.5	0.098	
SWSD009	PCB	Aroclor-1248	0,094	-	0,094	μg/L	0.5	0.09 ^g	
SWSD009	PCB	Aroclor-1254	0.094	_	0.094	μg/L	0.5	0.09 ^g	
SWSD009	РСВ		0.094	$\overline{}$	0.094		0.5	0.09	
		Aroclor-1260	0.094	_	0.094	μg/L	NE NE	0.09	
SWSD009 SWSD009	Pesticide Pesticide	4,4'-DDD 4,4'-DDE	0.036		0.036	μg/L	NE NE	0.3	
SWSD009	Pesticide	4,4'-DDE 4,4'-DDT	0.036		0.036	μg/L	NE NE	0.3	
SWSD009	Pesticide	4,4-DD1 Aldrin	0.030		0.038	μg/L μg/L	NE NE	NE	
SWSD009	Pesticide	alpha-BHC	0,018		0.018	μg/L μg/L	NE NE	0.01	
SWSD009	Pesticide	alpha-Chlordane	0.018		0.018	μg/L	NE NE	NE	
SWSD009	Pesticide	beta-BHC	0.018		0.018	μg/L	NE NE	0.04	
SWSD009	Pesticide	delta-BHC	0.018	_	0.018	μg/L μg/L	NE	0.4	
SWSD009	Pesticide	Dicldrin	0.036		0.036	μg/L	NE	0.001	
SWSD009	Pesticide	Endosulfan I	0.038		0.038	μg/L	NB	NE	
SWSD009	Pesticide	Endosulfan II	0.016		0.036	μg/L	NE	NE	
SWSD009	Pesticide	Endosulfan sulfate	0.036		0.036	µg/L	NE	NE	
SWSD009	Pesticide	Endrin	0.036		0.036	μg/L	2	ND	
SWSD009	Pesticide	Endrin aldchyde	0,036		0.036	μg/L	NE	5	
SWSD009	Pesticide	Endrin ketone	0.036		0.036	μg/L	NE	5	
SWSD009	Pesticide	gamma-BHC (Lindane)	0.038		0.018	μg/L	0.2	0.5	
SWSD009	Pesticide	gamma-Chlordane	0,018		0.018	μg/L	NE.	NE	
SWSD009		Heptachlor	0.018	_	0.018	μg/L	0.4	0.4	
SWSD009	Pesticide	Heptachlor epoxide	0.018		0.018	μg/L	0.2	0.3	
SWSD009	Pesticide	Methoxychlor	0.179		0.179	μg/L	40	35	
SWSD009	Pesticide	Toxaphene	0.446		0.446	μg/L	3	0.06	2000

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	Î Ç E
Sample Date: 10/30					ilinasi sessasi		-0		Back Roof
SWSD021	Radiological	Radium-226	0.125	+	0.400	_	5ª	5ª	101
SWSD021	Radiological	Radium-228	0.693	+	0.593	pCi/L	5ª	5ª	10
		Total Radium ^a	0.693	+-		pCi/L	5°	5*	10
SWSD021	Radiological	Thorium-228	0.000	+-	0.140		15 ^b	NE	. 40
SWSD021	Radiological	Thorium-230	0.080	+	0,089	pCi/L	15 ^b	NE	30
SWSD021	Radiological	Thorium-232	0.015	U	0.096	_	15 ^b	NE	
		Total Thorium b	Non-detect	-		pCi/L	15 ^b	NE	N
SWSD021	Radiological	Uranium-234	2.640	_	0,371	pCi/L	27°	NE NE	60
SWSD021	Radiological	Uranium-235	0.148	-	0.325	pCi/L	27°	NE	60
SWSD021	Radiological	Uranium-238	1.780	 	0.334		27°	NE	60
0W0D001	1,	Total Uranium ^c	4.420	 	-	pCi/L		NE	00
SWSD021	Metal	Aluminum	4090	-	0.5	μg/L	50-200 ^d	NE 2	
SWSD021 SWSD021	Metal Metal	Antimony Arsenic	1.5	U	0.5 1.5	μg/L, μg/L	10	25	
SWSD021	Metal	Barium	76.5	Ŭ	0.5	μg/L	2000	1000	
SWSD021	Metal	Beryllium	0.2	ī	0.1	μg/I.	4	11	
SWSD021	Metal	Boron	66.2	+	4.0	μ <u>ε</u> /L	NE	1000	
SWSD021	Metal	Cadmium	0.1	-	0.1	μg/L	5	5	
SWSD021	Metal	Calcium	63900	-	100		NE	NE	
SWSD021	Metal	Chromium	267.0	-	7.5	μg/L	100	50	
SWSD021	Metal	Cobalt	1.6		0,1	μg/L	NE	NE	
SWSD021	Metal	Copper	6,6	П	0.3	μg/L	1300	200	
SWSD021	Metal	Iron	3910		10	μg/L	300 ^d	300	
SWSD021	Metal	Lead	1.5	j	0.5	μg/L	15	25	
SWSD021	Metal	Lithium	10.9		2.0	μg/L	NE	NE	
SWSD021	Metal	Magnesium	19900.0	1_	5.2	μg/L	NE	NE.	
SWSD021	Metal	Manganese	47.7		1.0	μg/L	50 ^d	300	
SWSD021	Metal	Mercury	0.1	-	0.1	μg/L	2	0.7	
SWSD021	Metai	Nickel	5.0		0.5	μg/L	NE	100	
SWSD021	Metal	Potassium	5100	-	80	μg/L	NE 50	NE 10	
SWSD021	Metal	Selenium	1.0	-	1.0	μg/L	50	10	
SWSD021	Metal	Silver	0.2	-	0.2	μg/L	100 ^d	50	
SWSD021	Metal	Sodium	9010	_	80	μg/L	NE 2	20000	
SWSD021 SWSD021	Metal Metal	Thallium Vanadium	16.5	۳	0.3 3.0	μg/L μg/L	NE	NE 14	
WSD021	Metal	Zinç	11.0	H	2.6		5000 ^d	NE	
SWSD021	VOC	1,1,1-Trichleroethane	1,00	_	1.00	μg/L μg/L	200	5	
WSD021	VOC	1,1,2,2-Tetrachloroethane	1.00		1.00		NE	5	
SWSD021		1,1,2-Trichloroethane	1.00		1,00		5	1	
WSD021	VOC	1,1-Dichloroethane	1.00		1.00	μg/L	NE	5	
WSD021	VOC	1,1-Dichloroethylene	1.00		1.00		7	. 5	
WSD021	VOC	1,2-Dichlorocthane	1.00		1.00		5	0.6	
WSD021		1,2-Dichloropropane	1,00	_	1,00		5	1	
WSD021 WSD021	 	2-Butanone 2-Hexanone	5.00 5.00	_	5.00 5.00	μg/L μg/L	NE NE	NE NE	
WSD021	voc	4-Methyl-2-pentanone	5.00	_	5.00		NE NE	NE NE	
WSD021	voc	Acetone	5.00		5.00	μg/L	NE	NE	
WSD021	·····	Вепzепе	1.00		1.00		5	l.	
WSD021	VOC	Bromodichloromethane	1.00		1.00	μg/L	NE	NE	
WSD021		Bromoform	1.00	_	1.00	μg/l.	NE	NE	
WSD021		Bromomethane	1.00	-	1,00	μg/L	NE	5	
WSD021	VOC	Carbon disulfide	5.00		5.00	μg/L	NE	60 5	
WSD021 WSD021	VOC	Carbon tetrachloride Chlorobenzene	1,00 1.00	_	1,00 1.00	μg/L μg/L	100	5	
WSD021		Chloroethane	1.00		1.00	μg/L μg/L	NE		
WSD021		Chloroform	1,00	_	1.00	μg/L	NE	7	
WSD021	VOC	Chloromethane	1.00	-	00.1	μg/L	NE	5	
WSD021	VOC	cis-1,2-Dichloroethylene	1.00	U	1.00	μg/L	70	5	
WSD021	VOC	cis-1,3-Dichloropropylene	1.00	_	1.00	μg/L	NE	0.4 ^e	
WSD021		Ethylbenzene	1.00	_	1,00	μg/L	700	5	
WSD021		Methylene chloride	10.00	\rightarrow	10.00	μg/L	5	5	
WSD021		Styrene	1,00		1.00	μg/L	100	5	
WSD021		Tetrachloroethylene	2.00		2,00	µg/L	1000	5	
WSD021 WSD021		Toluene trans-1,2-Dichloroethylene	1.00 1.00		1,00 1,00	μg/L μg/L	1000 100	5 5	
WSD021		trans-1,2-1/1chlorocthylene	1.00	_	1.00		NE NE	0.4°	
WSD021		Trichlorocthylene	1.00		1.00	μg/L μg/L	1415	5	
WSD021) 	Vinyf chloride	1.00	$\overline{}$	1.00	μg/L μg/L	2	2	
WSD021		Xylenes (total)	1,00	Ī	1.00	μg/L	10000	5 ^r	

Table 7-3

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DOGs**
SWSD021	PAH	Acenaphthene	0,472	1	0.472	μg/L	NE	NE	
SWSD021	PAH	Accnaphthylene	0.472		0.472	μg/L	NE	NE.	
SWSD021	РАН	Anthracenc	0.472	U	0.472	μg/I.	NE	NE	
SWSD021	PAH	Benzo(a)anthracenc	0.047		0.047	με/L	NE	NE	
SWSD021	PAH	Benzo(a)pyrene	0.047		0.047	μg/L	0.2	NE	
SWSD021	PAH	Benzo(b)fluoranthene	0.047		0.047	μg/L	NE	NE	
SWSD021	PAH	Benzo(ghi)perylene	0.047	U	0.047	μg/L	NE	NE	
SWSD021	PAH	Benzo(k)fluoranthene	0.024	U	0.024	μg/L	NE	NE	
SWSD021	PAH	Chrysene	0.047	U	0.047	μg/L	NE	NE	
SWSD021	PAH	Dibenzo(a,h)anthracenc	0.047	U.	0.047	μg/L	NE	NE	
SWSD021	PAH	Fluoranthene	0.047	U	0.047	μg/L	NE	NE	
SWSD021	PAH	Fluorene	0.472	U	0.472	μg/L	NE	NE	
SWSD021	PAH	Indeno(1,2,3-cd)pyrene	0.047	U	0.047	μg/L	NE	NE	
SWSD021	PAH	Naphthalene	0.472	U	0,472	μg/L	NE	NE	
SWSD021	PAH	Phenanthrene	0.472	U	0.472	μg/L	NE	NE	
SWSD021	PAH	Pyrenc	0,047	U	0.047	μg/L	NE	NE	
SWSD021	РСВ	Areclor-1016	0.094	Ū	0.094	µg/L	0.5	0.09 ⁸	
SWSD021	РСВ	Aroclor-1221	0.094	U	0.094	μg/L	0.5	0.09 ²	
SWSD021	РСВ	Aroclor-1232	0.094	IJ	0,094	μg/L	0,5	0.098	
SWSD021	РСВ	Aroclor-1242	0.094	U	0.094	μg/L	0.5	0.09 ⁸	
SWSD021	PCB	Aroclor-1248	0.094	-	0.094	μg/L	0.5	0.09 ^g	
SWSD021	PCB	Aroclor-1254		U	0.094	μg/L	0.5	0.09 ⁸	
SWSD021	PCB	Aroclor-1260	0.094	_	0.094	μg/L	0.5	0.09 ⁸	
SWSD021		4.4'-DDD		Ŭ	0.0377	με/L	NE	0.3	
SWSD021	Pesticide	4,4'-DDE	0.0377		0.0377	μg/L	NE	0.3	
SWSD021	Pesticide	4,4'-DDT	0.0377		0,0377	μg/L	NE	0.2	
SWSD021	Pesticide	Aldrin		Ŭ	0.0189	ug/L	NE	ND	1983
SWSD021	Pesticide	alpha-BHC	0.0189		0.0189	μg/L	NE	0.01	
SWSD021	Pesticide	alpha-Chlordane		Ū	0,0189	μg/L	NE	NE	
SWSD021	Pesticide	beta-BHC	0.0189	Ū	0.0189	μg/L	NE	0.04	
SWSD021	Pesticide	delta-BHC		U	0.0189	ng/L	NE	0.4	
SWSD021	Pesticide	Dieldrin	0,0377	U	0.0377	µg/L	NE	0.001	
SWSD021	Pesticido	Endosulfan I	0.0189	U	0,0189	μg/L	NE	NE	
SWSD021	Pesticide	Endosulfan II	0.0377	Ū	0.0377	μg/L	NE	NE	
SWSD021	Pesticide	Endosulfan sulfate	0.0377	U	0,0377	μg/L	NE	NE	9.00
SWSD021	Pesticide	Endrin	0.0377	U	0.0377	μg/L	2	ND	
WSD021	Pesticide	Endrin aldehyde	0.0377	Ū	0.0377	μg/L	NE		
SWSD021		Endrin ketone		U	0.0377	μg/L	NE		
WSD021	Pesticide	gamma-BHC (Lindane)	0.0189	U	0.0189	μg/L	0.2	0.5	
WSD021	Pesticide	gamma-Chlordane	0.0189		0.0189	μg/L	NE	NE	
WSD021	Pesticide	Heptachlor	0.0189	υĺ	0,0189	μg/L	0.4	0.4	
WSD021	Pesticide	Heptachlor epoxide	0.0189	υ	0.0189	μg/L	0.2	0.3	
WSD021	Pesticide	Methoxychlor	0.1890	U	0.1890	μg/L	40	35	
WSD021	Pesticide	Toxaphene	0.4720	υĺ	0,4720	μg/L	3	0.06	

	able 7 - NFSS Fall 2008 Environmental Surveillance Program Findings for Surface Water										
Surface Water Location*	PARAMETER*		RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs***	NY State Water Quality Stds.**	DOE DCGs**		
	9/2008		<u> </u>	Į.		100000000000000000000000000000000000000					
SWSD010	Radiological	Radium-226	0,884		0,680	pCi/L	5°	5°	100°		
SWSD010	Radiological	Radium-228	1.070	J	0.516	pCi/L	5ª	5ª	100°		
		Total Radium ^a	1.954	Г		pCi/L	5°	5ª	100°		
SWSD010	Radiological	Thorium-228	0.084	U	0.120	pCi/L	15 ^b	NE	400		
SWSD010	Radiological	Thorium-230	0.019	•	0.110		15 ^b	NE	300		
SWSD010		Thorium-232		+	1	_	15 ^h	NE	50		
S M S D O L O	Radiological		0.012	띡	0.079	pCi/L					
		Total Thorium ^b	Non-detect	ļ		pCi/L	15 ^b	NE	NE		
SWSD010	Radiological	Uranium-234	2.550	<u> </u>	0.198		27°	NE	600°		
SWSD010	Radiological	Uranium-235	0.195	L	0.136	pCi/L	27°	NE	600°		
SWSD010	Radiological	Uranium-238	1,920		0.176	pCi/L	27 ^c	NE	600°		
		Total Uranium ^c	4.665			pCi/L	27 ^c	NE	600°		
SWSD010	Metal	Aluminum	1320	Г		μg/L	50-200 ^d	NE			
SWSD010	Metal	Antimony	1.8	•	0.5	μg/L	6	3			
SWSD010	Metal	Arsenic	1.9	_	1.5	μg/L	10	25			
SWSD010		Barium	74.7	1	0.5	μg/L	2000	1000			
	Metal			,,			2000				
SWSD010	Metal	Beryllium	0,1	U	0.1	μg/L,	<u> </u>	1000			
SWSD010	Metal	Boron	984.0	_	20.0	μg/L	NE	1000			
SWSD010	Metal	Cadmium	0.1	U	0.1	μg/L	5	5			
SWSD010	Metal	Calcium	146000	L	100	μg/L	NE.	NE.			
SWSD010	Metal	Chromium	23.9		1.5	μg/L	100	50			
SWSD010	Metal	Cobalt	1.2		0.1	μg/L	NE	NE			
SWSD010	Metal	Copper	7.3	Г	0.3	μg/L	1300	200			
SWSD010	Metal	Iron	2430		10	μg/L	300 ^d	300			
SWSD010		Lead	•		F2003 600 700 20 40 500 700 700 700 700 700 700 700 700 70		15	25	960098950		
	Metal		4,4	-	0.5	μg/L	-		560,080,030		
SWSD010	Metal	Lithium	22.6	<u> </u>	2.0	μg/L	NE	NE			
SWSD010	Metal	Magnesium	36600.0		26.0	μg/L	NE	NE	SECTION SECTION		
SWSD010	Metai	Manganese	156.0		5.0	μg/L	50 ⁴	300			
SWSD010	Mctai	Mercury	0.1	U	0.1	μg/L	2	0.7			
SWSD010	Metal	Nickel	6.9		0.5	μg/L	NE	100			
SWSD010	Metal	Potassium	6010		80	μg/L	NE	NE			
SWSD010	Metal	Selenium	3,2	1	1.0	μg/L	50	10			
SWSD010	Metal	Silver	0.2	-	0.2	μg/L	100 ^d	50	802803000		
SWSD010				-					3888888		
	Metal	Sodium	76300	_	400	μg/L,	NE 2	20000	8.93.000.000		
SWSD010	Metal	Thailiam	0.3	_	0.3	μg/L	2	NE	000000000000000000000000000000000000000		
SWSD010	Metal	Vanadium	4.4	J	3.0	μg/L	NE	14			
SWSD010	Metai	Zine	31.2		2.6	μg/L	5000°	NE			
SWSD010	VOC	1,1,1-Trichloroethane	1.00		1.00	μg/L	200	5			
SWSD010	VOC	1,1,2,2-Tetrachloroethane	1.00	U	1.00	μg/L	NE	5			
SWSD010	VOC	1,1,2-Trichforoethane	00.1	U	1.00	μg/L	5	1			
SWSD010	VOC	1,1-Dichloroethane	1.00		1.00	μg/L	NE	5			
SWSD010	VOC	1,1-Dichloroethylene	1.00	U	1.00	μg/∟	7	5			
WSD010	VOC	1,2-Dichloroethane	1.00	U	1,00	μg/L	5	0,6			
WSD010	VOC	1,2-Dichleropropane	00.1		1.00	μg/L	5	1			
WSD010	VOC	2-Butanone	5,00	Ű	5.00	μg/L	NE	NE			
SWSD010	VOC	2-Hexanone	5.00	U	5.00	μg/L	NE	NE			
WSD010	VOC	4-Methyl-2-pentanone	5.00		5,00	μg/L	NE	NE			
WSD010	VOC	Acetone	5,00		5.00	μg/l.	NE	NE			
WSD010	VOC	Benzene	1.00	U	1,00	μg/L	5	1			
WSD010	VOC	Bromodichloromethane	1.00	U	1,00	μg/L	NE	NE			
WSD010	VOC	Bromoform	1.00		1.00	μg/l.	NE	NE			
WSD010	VOC	Bromomethane	1.00	Ü	1.00	μg/L	NE	5			
WSD010	VOC	Carbon disulfide	5.00	U	5,00	μg/L	NE	60			
WSD010	VOC	Carbon tetrachloride	1.00	U	1,00	μg/L	. 5	5			
WSD010	VOC	Chlorobenzene	1.00	Ü	1.00	μg/L	100	5			
WSD010	VOC	Chloroethane	1.00	-	1.00	μg/L	NE	5			
WSD010	VOC	Chloroform	1,00	\rightarrow	1.00	μg/L	NE	7			
WSD010	VOC	Chloromethane	1,00		1.00	μg/L	NE	5			
WSD010	VOC	cis-1,2-Dichloroethylene	3.58	\dashv	1,00	μg/L	70	5			
WSD010	voc	cis-1,3-Dichloropropylene	1.00	_{II}	1,00	μg/L	NE	0.4°			
WSD010	voc	Ethylbenzene	1.00	_	1.00	μg/L μg/L	700	5			
WSD010	VOC	Mothylene chloride	10.00	\rightarrow	10.00	μg/L μg/L	5	5	150 150 150		
WSD010				-	CONTRACTOR CONTRACTOR		100				
	VOC	Styrene	1.00	ᅬ	1,00	μg/L	100	5			
WSD010	VOC	Tetrachloroethylene	7.91	., [2.00	μg/i.	1000	5			
WSD010	VOC	Toluene .	1.00	_	1.00	μg/L	1000	5			
WSD010	VOC	trans-1,2-Dichloroethylene	1.00	\rightarrow	1.00	μg/L	100	5			
WSD010	VOC	trans-1,3-Dichloropropylene	1.00	υļ	1.00	μg/I,	NE	0.4°			
WSD010	VOC	Trichloroethylene	3.63	╝	1,00	μg/L	5	5			
WSD010	VOC	Vinyl chloride	00.1	U	1,00	μg/L	2	2			
	VOC	Xylenes (total)	1,00		1.00	μg/L	10000	5 ^f	78811881888		

Table 7-5

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs***	NY State Water Quality Stds.**	DOF DCG.**
SWSD010	PAH	Acenaphthene	0.481	U	0.481	μg/L	NE	NE	
SWSD010	PAH	Acenaphthylene	0.481	U	0,481	μg/L	NE	NE	
SWSD010	PAH	Anthracene	0.481	U	0.48	μg/L	NE	NE	
SWSD010	PAH	Benzo(a)anthracene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	РАН	Benzo(a)pyrene	0.048	U	0.048	μg/L	0.2	NE	
SWSD010	PAH	Benzo(b)fluoranthene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PAH	Benzo(ghi)perylene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PAH	Benzo(k)fhioranthene	0.024	υ	0.024	μg/L	NE	NE	
SWSD010	PAH	Chrysene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PAH	Dibenzo(a,h)anthracene	0.048	U.	0.048	μg/L	NE	NE	
SWSD010	PAH	Fluoranthene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PAH	Fluorene	0.481	U	0.481	μg/L	NE	NE	
SWSD010	PAH	Indeno(1,2,3-cd)pyrene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PAH	Naphthalene	0.481	U	0.481	μg/L	NE	NE	
SWSD010	PAH	Phenanthrene	0.481	U	0.481	μg/L	NE	NE,	
SWSD010	РАН	Pyrene	0.048	U	0.048	μg/L	NE	NE	
SWSD010	PCB	Aroclor-1016	0.094	U	0.094	μg/L	0.5	0.09 ^g	
SWSD010	PCB	Aroclor-1221		_	0.094	μg/L	0.5	0.09g	
SWSD010	PCB	Aroclor-1232	0.094	-	0.094	μg/L	0.5	0.098	
SWSD010	PCB	Aroclor-1242		_	0.094	μg/L	0.5	0.098	
SWSD010	PCB	Aroclor-1248	0.094	_	0.094	μg/L	0,5	0.09 ^g	
SWSD010	PCB	Aroclor-1254	0.094	_	0.094	μ <u>в</u> .∟ μ <u>в</u> /L	0.5	0.09 ^g	
	PCB	Aroclor-1260	0.094		0.094		0.5	0.09 ^g	
				_	Chevrence and Constitution	μg/L	NE.	0.09	
SWSD010 SWSD010	Pesticide	4,4'-DDD	0.0377	-	0.0377 0.0377	μg/L	NE NE	0.3	
WSD010	Pesticide Pesticide	4,4'-DDE 4,4'-DDT	0.0377		0.0377	μg/L	NE NE	0.3	
SWSD010	Pesticide Pesticide	Aldrin	0.0377		0.0177	μg/L	NE NE	ND	
WSD010			0.0189		0.0189	μg/L	NE.	0.01	
SWSD010	Pesticide	alpha-BHC	0.0189		0.0189	μg/L	NE NE	NE	
SWSD010	Pesticide	alpha-Chlordanc beta-BHC	0.0189		0.0189	μg/L μg/L	NE NE	0.04	
WSD010	Pesticide	delta-BHC	0,0063		0.0189	μg/L μg/L	NE	0.04	
SWSD010	Pesticide	Dieldrin	0.0377	-	0.0377	μg/L μg/L	NE NE	0.001	
SWSD010	Pesticide	Endosulfan I	0.0377	ř	0.0189	μg/L	NE.	0.001 NE	
WSD010	Pesticide	Endosulfan II	0.0377	11	0.0377	μg/L μg/L	NE	NE	
WSD010		Endosulfan sulfate	0.0377		0.0377	μg/L	NE	NE	
WSD010		Endrin	0.0377	_	0.0377	μg/L	2	ND	
WSD010		Endrin aldehyde	0.0377		0.0377	μg/L μg/L	NE NE	5	
WSD010		Endrin ketoac	0.0377	—	0,0377	μg/L	NE	5	
WSD010	Pesticide	gamma-BHC (Lindane)	0.0189	_	0.0189	μg/L	0,2	0.5	0.000000
WSD010		gamma-Chlordane	0.0189	-	0.0189	μ <u>g/L</u> μ <u>g/L</u>	NE	NE.	
WSD010		Heptachlor	0.0189	_	0.0189	μg/L μg/L	0.4	0.4	
WSD010		Heptachlor cpoxide	0.0189		0.0189	μg/L μg/L	0.4	0.3	
WSD010		Methoxychlor	0.1890	_	0.1890	μg/L μg/L	40	35	
WSD010		Toxaphene	0.4720		0.4720	μg/L μg/L	3	0.06	

Table 7 - NFSS Fall 2008 Environmental Surveillance Program Findings for Surface Water									
Surface Water Location* Sample Date: 10/3		* ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD011	Wzuve Radiological	Radium-226	0.710		0.717	pCi/L	5ª	5"	100ª
SWSD011	Radiological	Radium-228	0.710	-	0.717	pCi/L	5°	5	
DWODOTT	ikadibildgicai	Total Radium a	Non-detect	+	0,732	_	5ª	5°	
SWSD011	Radiological	Thorium-228	-0.007	-	0.186	pCi/L pCi/L	15 ^b	NE NE	400
SWSD011	Radiological	Thorium-230	0,020	+-	0.136		15 ^b	NE NE	300
SWSD011	Radiological	Thorium-232	-0.035	+	0.136	pCi/L	15 ^b	NE NE	50
3 # 3D 0 1 1	Kadiologicai	Total Thorium b	Non-detect	٢	0.130	pCi/L	15 ^b	NE NE	NE.
SWSD011	Radiological	Uranium-234	3,190	┢	0.375	pCi/L	27°	NE.	600°
SWSD011	Radiological	Uranium-235	0.102		0,138	pCi/L	27°	NE NE	600°
SWSD011	Radiological	Uranium-238	2.900	_	0.424	pCi/L	27°	NE.	600°
DIIDDUII	Trathological	Total Uranium e	6.090	┢	0.424	pCi/L	27°	NE.	600°
SWSD011	Metal	Aluminum	351	┢	5	μg/L	50-200 ^d	NE	(000
SWSD011	Metal	Antimony	1.3	r	0.5	μg/L	50 200	3	
SWSD011	Metal	Arsenic	1.5		1,5	μg/L	10	25	
SWSD011	Metal	Barium	49.5	-	0,5	μg/L	2000	1000	
SWSD011	Metal	Bcryllium	0,1	U	0.1	μg/L	4	11	
SWSD011	Metal	Boron	750.0	Γ	20.0	μg/L	NE	1000	
SWSD011	Metal	Cadmium	0.1	U	0.1	μg/L	. 5		
SWSD011	Metal	Calcium	175000		100	μg/L	NE	· NE	
SWSD011	Metal	Chromium	2.2	J	1,5	μg/L	100	50	
SWSD011	Metal	Cobalt	8,0	J	0.1	μg/L	NE	NE	
SWSD011	Metal .	Copper	4.0		0.3	μg/L	1300	200	
SWSD011	Metal	Iron	1440		10	μg/L	300 ^d	300	
SWSD011	Metal	Lead	0.5	3	0,5	μg/L	15	25	
SWSD011	Metal	Lithium	22.6		2.0	μg/L	NE	NE	
SWSD011	Metal	Magnesium	46600,0		5.2	μg/L	NE.	NE	
SWSD011	Metal	Manganese	159.0		5.0	μg/L	50 ^d	300	
SWSD011	Metal	Mercury	0.1	U	0.1	μg/L	2	0.7	
SWSD011 SWSD011	Metal Metal	Nickel Potassium	6.0 8460	_	0.5	μg/L	NE	100 NE	
SWSD011	Metal	Sclenium	1,0	-	80 1.0	μg/L	NE 50	10	
SWSD011	Metal	Silver	0.2	U	0.2	μg/l, μg/L	100 ^d	50	888888888
SWSD011	Metal	Sodium	68200		400	μg/L μg/L	NE	20000	
SWSD011	Metal	Thallium	0.3	U	0.3	μg/L	2	NE	
SWSD011	Metal	Vanadium	3.0		3.0	μg/L	NE	14	
SWSD011	Metal	Zinc	14.6		2.6	μg/L	5000 ^d	NE	
SWSD011	VOC	1,1,1-Trichloroethane	1.00	U	1,00	μg/L	200	5	al de la company
SWSD011	VOC	1,1,2,2-Tetrachloroethane	1.00		1.00	μg/L	NE	5	
SWSD011	VOC	1,1,2-Trichloroethane	1.00		1,00	μg/L	5	1	
SWSD011	VOC	1,1-Dichloroethane	00.1		1.00	μg/L	NE	5	
SWSD011 SWSD011	VOC VOC	1,1-Dichleroethylene 1,2-Dichleroethane	1.00	$\overline{}$	1,00 1,00	μg/L	7	5	1101000000
SWSD011	voc	1,2-Dichloropropane	1,00		1.00	μg/L μg/L	5	0,6	
SWSD011	VOC	2-Butanone	5,00	_	5.00	μg/L	NE	NE	
SWSD011	VOC	2-Hexanone	5.00		5.00	μg/L	NE	NE	
SWSD011	VOC	4-Methyl-2-pentanone	5.00	U	5,00	μg/L	NE	NE	
SWSD011	VOC	Acetone	5,00		5,00	μg/l.	NE	NE	
SWSD011	VOC	Benzene	1.00		1,00	μg/L	5	1	
SWSD011	VOC	Bromodichloromethane	1.00		1.00	μg/L	NE	NE	
SWSD011 SWSD011	VOC VOC	Bromoform Bromomethane	1.00		1.00 1.00	μg/l,	NE NE	NE	
WSD011	voc	Carbon disulfide	5.00	\rightarrow	5,00	μg/L μg/L	NE NE	5 60	
SWSD011	VOC	Carbon tetrachloride	1.00	_	1.00	μg/L	5	5	
WSD011	VOC	Chlorobenzene	1.00		1.00	μg/L	100	5	
WSD011	VOC	Chloroethane	1.00		1.00	μg/L	NE	5	
WSD011	VOC	Chloroform	1,00		1.00	μg/l.	NE	7	
WSD011	VOC	Chloromethane	1,00		1,00	μg/L	NE	5	
WSD011	VOC	cis-1,2-Dichleroethylene	1.00	_	1.00	μg/L –	70	5	
WSD011	VOC	cis-1,3-Dichloropropylene	1.00	_	1,00	μg/L	NE 700	0.4°	
WSD011 WSD011	VOC VOC	Ethylbenzene Methylene chloride	1,00 10.00		1.00	μg/L	700	5	
WSD011	VOC	Styrene Styrene	10.00	- 6	10.00	μg/L ug/I	5 100	5	
WSD011	VOC	Tetrachloroethylene	2,00	_	2.00	μg/L μg/L	500	5	
WSD011	voc	Toluene	1.00	_	1.00	μg/L	1000	5	
	voc	trans-1,2-Dichloroethylene	1.00		1.00	μg/L	100	5	
WSD011				-	to a second second second			- 1	CONTRACTOR CONTRACTOR
	VOC	trans-1,3-Dichloropropylene	1.00	U 🏻	1,00	μg/L	NE	0.4°	
WSD011 WSD011 WSD011	VOC VOC	trans-1,3-Dichloropropylene Trichloroethylene	1,00	_ ;	1,00 1,00	μg/L μg/L	NE 5	0.4°	
WSD011 WSD011	VOC			U	A milestantified				

Table 7-7

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SWSD011	PAH	Acenaphthene	0.485	_	0.485	μg/L	NE.	NE	
SWSD011	PAH	Acenaphthylene	0.485	U	0,485	μg/L	NE	NE	
SWSD011	PAH	Anthracene	0.485	U	0,485	μg/L	NE	NE	
SWSD011	РАН	Benzo(a)anthracene	0.049	U	0.049	μg/L	NE	NE	
SWSD011	PAH	Benzo(a)pyrene	0.049	U	0.049	μg/L	0.2	ND	
SWSD011	PAH	Benzo(b)fluoranthene	0.049	_	0.049	μg/L	NE	NE	
SWSD011	РАН	Benzo(ghi)perylene	0.049	_	0.049	μg/L	NE	NE	
SWSD011	PAH	Benzo(k)fluoranthene	0.024	-	0.024	μg/L	NE	NE	
SWSD011	PAH	Chrysene	0.049		0.049	μg/L	NE	NE	
SWSD011	PAH	Dibenzo(a,h)anthracene	0.049		0.049	μg/L	NE	NE	1000000
SWSD011	PAH	Fluoranthene	0.049	_	0.049	μg/L	NE	NE	
SWSD011	PAH	Fluorene		U	0.485	μg/L	NE	NE	
SWSD011	PAH	Indeno(1,2,3-cd)pyrene	0.049		0.049	μg/L	NE	NE	0.0000000000000000000000000000000000000
SWSD011	РАН	Naphthalene	0.485		0,485	μg/L	NE	NE	
SWSD011	PAH	Phenanthrene	0,485	$\overline{}$	0,485	μg/L	NE	NE	
SWSD011	PAH	Pyrene	0.049	U	0.049	μg/L	NE	NE	
SWSD011	PCB	Aroclor-1016	0.093	U	0.093	μg/L	0.5	0.098	
SWSD011	PCB	Aroclor-1221	0.093	U	0.093	μg/L	0.5	0.09^{8}	
SWSD011	PCB	Aroclor-1232	0.093	U	0,093	μg/L	0.5	0.09 ^g	
SWSD011	РСВ	Aroclor-1242	0,093	U	0.093	μg/L	0.5	0.098	
SWSD011	PCB	Aroclor-1248	0,093	U	0,093	μg/L	0.5	0.098	
SWSD011	PCB	Areclor-1254	0.093		0.093	μg/I	0.5	0.09 ^g	
SWSD011	PCB	Aroclor-1260		Ŭ	0.093	μg/L	0,5	0.09 ^E	
SWSD011	Pesticide	4,4'-DDD	0,0400	_	0.0400	μg/L	NE	0.0	
SWSD011	Pesticide	4,4'-DDE	0.0400		0.0400	րց/Լ	NE	0.3	
SWSD011	Pesticide	4,4'-DDT	0.0400	_	0.0400	μg/L	NE	0.2	
SWSD011	Pesticide	Aldrin	0,0200		0.0200	μg/L	NE.	ND	
SWSD011	Pesticide	alpha-BHC	0.0200		0.0200	μg/L	NE	0.01	
SWSD011	Pesticide	alpha-Chlordane	0.0200	_	0.0200	μg/L	NE	NE.	
SWSD011	Pesticide	beta-BHC	0,0200		0.0200	μg/L	NE	0.04	
SWSD011	Pesticide	delta-BHC	0.0200		0.0200	μg/L	NE	0.4	
SWSD011	Pesticide	Dieldrin	0,0400		0.0400	μg/L	NE	0,001	
SWSD011	Pesticide	Endosulfan I	0,0200	-	0.0200	μg/L	NE	NE	
SWSD011	Pesticide	Endosulfan II	0.0400		0.0400	μg/L	NE	NE	
SWSD011	Pesticido	Endosulfan sulfate	0.0400		0.0400	μg/L	NE	NE	
SWSD011	Pesticido	Endrin	0,0400	_	0.0400	με/L	2	ND:	
SWSD011	Pesticide	Endrin aldehyde	0.0400		0.0400	μg/L	NE	5	
SWSD011	Pesticide	Endrin ketone	0.0400		0,0400	μg/L	NE	5	
SWSD011	Pesticide	gamnia-BHC (Lindane)	0,0200		0.0200	μg/L	0.2	0.5	
SWSD011	Pesticide	gamma-Chlordane	0.0200		0.0200	μg/L	NE	NE	
SWSD011	Pesticide	Heptachlor	0.0200		0.0200	μg/L	0.4	0.4	
SWSD011	Pesticide	Heptachlor cpoxide	0,0200		0.0200	με/L	0.2	0.3	
SWSD011	Pesticide	Methoxychlor	0.2000	_	0.2000	μg/L	40	35	
SWSD011	Pesticide	Toxaphene	0.5000	_	0.5000	μg/L	3	0.06	

Surface Water				QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs***	NY State Water Quality Stds.**	DOE DCGs**
Location*	PARAMETER:	* ANALYTE	RESULT	<u>5</u>	ž Š	16	FRE	<u> 28</u>	<u>`</u>
Sample Date: 10/30		L	1			100		-1	
SW-DUP(swsp011)	Radiological	Radium-226	0.256		0.688	<u> </u>	5ª	5ª	100
SW-DUP(swsport)	Radiological	Radium-228 Total Radium ^a	0,978 Non-detect	U	0.978		5ª	5ª 5³	100°
SW-DUP(swsno11)	Radiological	Thorium-228	+	U	0.194	pCi/L	15 ^b	NE	
SW-DUP(swsixii)	Radiological	Thorium-230	0.121	•	0.194	pCi/L pCi/L	15 ^b	NE NE	400 300
SW-DUP(swspoil)	Radiological	Thorium-232	-0.008	+-	0.128		15 ^b	NE NE	500
011-201(awa2011)	Radiological	Total Thorium b	Non-detect	1	0,117	pCi/L	15 ^b	NE NE	NE NE
SW-DUP(swsixer)	Radiological	Uranium-234	3.370	\vdash	0.386	-	27°	NE NE	600
SW-DUP(swsD011)	Radiological	Uranium-235	0,220	-	0.273	pCi/L	27°	NE	600°
SW-DUP(swsd011)	Radiological	Uranium-238	2.650	1	0.335	pCi/L	27°	NE	600
	F	Total Uranium ^c	6.020	T	0.000	pCi/L	27°	NE	600°
SW-DUP(swsdott)	Metal	Aluminum	417	T	5	μg/L	50-200 ^d	NE	
SW-DUP(swsp011)	Metal	Antimony	1.3	j	0.5	μg/L	6	3	
SW-DUP(swsd011)	Metal	Arsenic	1.5	Ū	1,5	μg/L	10	25	
SW-DUP(swsp011)	Metal	Barium	51.7		0.5	μg/L	2000	1000	
SW-DUP(swsp611)	Metal	Beryllium	0.1	U	0.1	μg/L	4	11	
SW-DUP(swsd011)	Metal	Boron	725.0		20.0	μg/L	NE	1000	
SW-DUP(swsd011)	Metal	Cadmium	0.1	U	0.1	μg/L	5	5	
SW-DUP(swsix011)	Metal	Calcium	166000	_	100	µg/L	NE	NE	
SW-DUP(SWSD011)	Metal	Chromium	2.6	-	1.5	μg/L	100	50	
SW-DUP(swsmott)	Metal	Cobalt	0.9	J	0.1	μg/L	NE	NE	
SW-DUP(swsb011)	Metal	Copper	4.4		0.3	μg/L	1300	200	
SW-DUP(swsport)	Metal	Iron	1630	Ļ	10	μg/L	300 ^d	300	
SW-DUP(swsport)	Metal	Lead	0.7	1	0.5	μg/L	15	25	
SW-DUP(swsD011)	Metal	Lithium	22,2	H	2.0	μg/L	NE	NE	
SW-DUP(SWSD011)	Metal	Magnesium	45300.0	⊢	5.2	μg/L	NE 50 ^d	NE 200	
SW-DUP(SWSD011) SW-DUP(SWSD011)	Metal Metal	Manganese	176,0 0,1	11	5,0	μg/L	20	300 0.7	
SW-DUP(swspoil)	Metal	Mercury Nickel	6.4	U	0.1 0.5	μg/L	NE	100	
SW-DUP(swspoil)	Metal	Potassium	7570	1	80	μg/L μg/L	NE NE	NE	
SW-DUP(swsport)	Metal	Selenium	1.0	-	1.0	μg/L	50	10	
SW-DUP(swsperi)	Metal	Silver	0,2		0,2	μg/L	100 ^d	50	
SW-DUP(swsp011)	Metal	Sodium	69500	_	400	μg/L	NE	20000	
SW-DUP(swsd011)	Metal	Thallium	0.3	Ü	0,3	μg/L	2	ŊE	
SW-DUP(swsp011)	Metal	Vanadium	3.0	Ų	3.0	μg/i,	NE	14	
SW-DUP(swsd011)	Metal	Zinc	16.3		2,6	μg/L	5000 ^d	NE	
SW-DUP(swsno11)	VOC	1,1,1-Trichloroethanc	1.00	U	1,00	μg/L	200	5	8 6 6
SW-DUP(swsb011)	VOC	1,1,2,2-Tetrachloroethane	1.00		1,00	μg/L	NE	5	
SW-DUP(swsd011) SW-DUP(swsd011)	VOC	1,1,2-Trichloroethane	1,00		1.00	μg/L	5	<u>l</u>	
SW-DUP(swsbort)	VOC	1,1-Dichloroethane	00.1		1.00	μg/L μg/l.	NE	5 5	
SW-DUP(swspo11)	voc	1,2-Dichioroethane	1,00	1	1.00	μg/L	5	0.6	
SW-DUP(swspoti)	VOC	1,2-Dichloropropane	1.00		1.00	μg/L	5	1	
SW-DUP(swsp011)	VOC	2-Butanone	5.00	U	5,00	μg/L	NE	NE	
SW-DUP(swsd011)	VOC	2-Hexanone	5.00		5.00	μg/L	NE	NE	
SW-DUP(swspoii)	VOC	4-Methyl-2-pentanone	5.00		5,00	μg/L	NE	NE	
SW-DUP(swsp011) SW-DUP(swsp011)	VOC VOC	Acetone Benzene	5.00 1,00		5.00 1.00	μg/L	NE	NE	
SW-DUP(swsb011)	VOC	Bromodichloromethane	1.00		1.00	μg/L μg/L	5 NE	NE.	
SW-DUP(swspott)	VOC	Bromoform	1.00		1.00	μg/L	NE	NE	
SW-DUP(swsperr)	voc	Bromomethane	1.00	_	1,00	μg/L	NE	, 5	
SW-DUP(swsD011)	VOC	Carbon disulfide	5.00		5,00	μg/L	NE	60	
SW-DUP(swsnori)	VOC	Carbon tetrachloride	1.00	_	1,00	µg/L	5	5	
SW-DUP(swsport)	VOC	Chlorobenzene	1.00		1,00	μg/L	100	5	
SW-DUP(sws0011)	VOC	Chlorocthane	1,00	\rightarrow	1.00	μg/L	NE	5	
W-DUP(SWSD011)	VOC VOC	Chloroform Chloromethane	1.00	$\overline{}$	1.00	μg/L	NE NE	7	
W-DUP(SWSD011)	VOC	cis-1,2-Dichloroethylene	1.00		1,00	μg/L μg/L	NE 70	5 5	710
W-DUP(swsport)	VOC	cis-1,3-Dichloropropylene	1.00		1.00	μg/L	NE NE	0.4°	0.000
SW-DUP(swspo(1)	VOC	Ethylbenzene	1.00		1.00	μg/L μg/L	700	5	
W-DUP(swsdell)	VOC	Methylene chloride	10,00	_	10.00	μg/L	5	5	
W-DUP(swsd011)	VOC	Styrene	1.00		1.00	μg/L	100	5	
W-DUP(swsd011)	VOC	Tetrachloroethylene	2.00		2,00	μg/L	. 5	5	
W-DUP(swsd011)	VOC	Toluene	1.00		1,00	μg/L	1000	5	
W-DUP(swsperi)	VOC	trans-1,2-Dichloroethylene	1.00	-	1,00	μg/L	100	5	
W-DUP(SWSD#11)	VOC	trans-1,3-Dichloropropylene	1.00		1,00	μg/L	NE	0.4°	
W-DUP(swsd011) W-DUP(swsd011)	VOC VOC	Trichloroethylene Vinyl chloride	1,00		1.00	μg/L μg/L	5	5 2	
						11071			

Table 7-9

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	VNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
SW-DUP(swsd011)	PAH	Acenaphthene	0.472	U	0.472	μg/L	NE	NE	
SW-DUP(swsp011)	PAH	Accnaphthylene	0.472	U	0.472	μg/L	NE	NE	
SW-DUP(swsp011)	PAH	Anthracene	0.472	U	0.472	μg/L	NE	NE	
SW-DUP(swsD011)	PAH	Benzo(a)anthracene	0.047		0.047	μg/L	NE	NE	100
SW-DUP(SWSD0(1)	PAH	Benzo(a)pyrene	0.047	_	0.047	μg/L	0.2	ND	
SW-DUP(swsd0(1)	PAH	Benzo(b)fluoranthene	0.047	U	0.047	μg/L	NE	NE	
SW-DUP(swsd011)	PAH	Benzo(ghi)perylene	0.047	U	0.047	μg/L	NE	NE	
SW-DUP(swsdot1)	PAH	Benzo(k)fluoranthene	0,024		0,024	μg/L	NE	NE	
SW-DUP(swsb011)	РАН	Chrysene	0.047	Ų	0.047	μg/L	NE	NE	
SW-DUP(swsd011)	PAH	Dibenzo(a,h)anthracenc	0.047	U	0.047	ng/L	NE	NE	
SW-DUP(swsdoi1)	PAH	Fluoranthene	0.047	U	0.047	μg/L	NE	NE	
SW-DUP(sws0011)	PAH	Fluorene	0.472	U	0.472	μg/L	NE	NE	
SW-DUP(swsd011)	PAH	Indeno(1,2,3-cd)pyrenc	0.047	ū	0.047	μg/L	NE	NE	
SW-DUP(swsnorr)	PAH	Naphthalene	0.472	Ы	0,472	μg/L	NE	NE	
SW-DUP(swsboil)	PAH	Phonanthrene	0.472	٥	0,472	μg/L	NE	NE	
SW-DUP(swsd011)	PAH	Pyrene	0.047	ט	0.047	μg/L	NE	NE	
SW-DUP(SWSD011)	РСВ	Aroclor-1016	0,095	U	0.095	μg/L	0.5	0.09	
SW-DUP(swsport)	PCB	Aroclor-1221	0.095	U	0.095	μg/L	0.5	0.09 ^f	
SW-DUP(SWSD011)	PCB	Aroclor-1232	0.095	U	0,095	μg/L	0.5	0.09	
SW-DUP(swsperi)	PCB	Aroclor-1242	0.095	IJ	0.095	μg/L	0.5	0.09 ^f	
SW-DUP(swsport)	PCB	Aroclor-1248	0.095	IJ	0.095	ug/L	0.5	0.09 ^f	
SW-DUP(swsperi)	PCB	Aroclor-1254	0.095		0.095	μg/L	0.5	0.09	
SW-DUP(swsport)	PCB	Aroclor-1260	0.095	_	0.095	μg/L	0.5	0.09 ^f	
SW-DUP(swsport)		4,4'-DDD	0.0377		0.0377	μg/L	NE	0.3	
W-DUP(swsport)		4,4'-DDE	0.0377	_	0.0377	μg/L	NE	0,3	
W-DUP(swspoil)		4,4'-DDT		U	0.0377	μg/L	NE	0.2	
W-DUP(swsp011)	Pesticido	Aldrin	0.0189		0.0189	ug/L	NE	ND	
W-DUP(swsport)		alpha-BHC	0.0189		0.0189	μg/L	NE	0.01	
W-DUP(SWSD011)		alpha-Chlordane	0.0189	_	0.0189	μg/L	NE	NE	
W-DUP(swspori)	ļ <u></u>	beta-BHC	0.0189		0.0189	μg/L	NE	0.04	
W-DUP(swsp011)	Pesticide	delta-BHC	0.0189	-	0.0189	μg/L	NE	0.4	
W-DUP(swspot1)	Pesticide	Dieldrin	0,0377	U	0.0377	ug/L	NE	0.001	0.00
W-DUP(swsp011)	Pesticide	Endosulfan I	0.0189	υĺ	0.0189	µg/L	NE	NE	
W-DUP(swspoil)	Pesticide	Endosulfan II	0.0377	Ü	0.0377	μg/L	NE	NE	
W-DUP(swsport)	Pesticide	Endosulfan sulfate	0.0377	U	0,0377	μg/L	NE	NE	
W-DUP(SWSD011)	Pesticide	Endrin	0.0377	U	0.0377	μg/L	2	ND	
W-DUP(swsd011)	Pesticide	Endrin aldehyde	0.0377	U	0.0377	μg/L	NE	- 5	
W-DUP(swspott)	Pesticide	Endrin ketone		U	0,0377	μg/L	NE	5	
W-DUP(swsport)	Pesticido	gamma-BHC (Lindane)	0.0189	υ	0.0189	μg/L	0.2	0.5	
W-DUP(swsb011)		gamma-Chlordane	0.0189	U	0.0189	μg/L	NE	NE	
W-DUP(swspoii)	Pesticide	Heptachlor	0.0189	υ	0.0189	μg/L	0.4	0.4	
W-DUP(swsp011)		Heptachlor epoxide	0.0189	U	0.0189	μg/L	0.2	0.3	
W-DUP(swsp011)		Methoxychlor	0.1890	Ü	0.1890	μg/I.	40	35	
W-DUP(swsport)		Toxaphene	0.4720	υ	0,4720	μg/L	3	0,06	

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	OTALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOF DCG«**
Sample Date: 10/3 SWSD022	Radiological	Radium-226	0.579		0.520	pCi/L	5ª	5ª	100
SWSD022	Radiological	Radium-228	0.379	-		-	5 ^a	5	
B11 BD022	Radiological	Total Radium a	0.579	-	0.513	pCi/L	5	5 ^a	100
SWSD022	Radiological	Thorium-228	0.063	U	0.179		15 ^h	NE	40
SWSD022	Radiological	Thorium-230	0.025	U	+		15 ^b	NE	300
SWSD022	Radiological	Thorium-232	-0.039	1	+	pCi/L	15 ^b	NE	50
		Total Thorium ^b	Non-detect			pCi/L	15 ^b	NE	NI
SWSD022	Radiological	Uranium-234	2.160	L	0.396	pCi/L	27°	NE	600
SWSD022	Radiological	Uránium-235	0.201	L	0.136	pCi/L	27°	NE	600
SWSD022	Radiological	Uranium-238	1,490	L	0,313	pCi/L	27°	NE	600
	1	Total Uranium ^c	3.851	┡		pCi/L	27°	NE	600
SWSD022	Metal	Aluminum	66	-	5	μg/L	50-200 ^d	NE	
SWSD022 SWSD022	Metal Metal	Antimony	1.5	-	0.5	μg/L	6 10	25	
SWSD022	Metal	Barium	60.0		0.5	μg/L μg/L	2000	1000	
SWSD022	Metal	Beryllium	0.1	-	0.3	μg/L	4	11	
SWSD022	Metal	Boron	760.0		20.0	μg/L,	NE	0001	
SWSD022	Metal	Cadmium	0.1	U	0.1	μg/L	5	5	
SWSD022	Metal	Calcium	149000		100	μg/L	, NE	NE	
SWSD022	Mctal	Chromium	3.5		1.5	μg/L	100	50	
SWSD022	Metal	Cobalt	0.6	J	0.1	μg/L	NE	NE	
SWSD022	Metal	Соррсг	3.4		0.3	μg/L	1300	200	
SWSD022	Metal	Iron	1110	L	10	μg/L	300 ^d	300	
SWSD022	Metal	Lead	0,5	U	0.5	μg/L	15	25	
SWSD022	Metal	Lithium	24.4	L	2,0	μg/L	NE	NE	
SWSD022	Metal	Magnesium	38400.0	L	5.2	μg/L	NE	NE	
SWSD022	Metal	Manganese	71.4	L	1.0	μg/L	50 ^d	300	
SWSD022	Metal	Mercury	0.1	U	0.1	μg/L	2	0.7	
SWSD022 SWSD022	Metal	Nickel Potassium	5,9	7	0.5	μg/L	NE	100	
SWSD022	Metal Metal	Selenium	7540 1,0	_	80 1.0	μg/L	NE 50	. NE	
WSD022	Metal	Silver	0.2	_	0.2	μg/L μg/L	100 ^d	50	
SWSD022	Metai	Sodium	84300	2	400	μg/L μg/L	NE	20000	
SWSD022	Metal	Thallium	0.3	U	0.3	μg/L	2	NE	
SWSD022	Metal	Vanadium	3.0		3.0	μg/L	NE	14	
SWSD022	Metal	Zinc	8.7	j	2,6	μg/L	5000 ^d	NE	
SWSD022	VOC	1,1,1-Trichloroethanc	1,00	U	1,00	μg/L	200	5	0.000
WSD022	VOC	1,1,2,2-Tetrachloroethane	1.00		1.00	μg/L	NE	5	
WSD022		1,1,2-Trichloroethane	1,00		1.00		5	1	
WSD022 WSD022	VOC	1,1-Dichloroethylene	1,00	_	1,00 1,00	μg/L	NE 2	5	
WSD022		1,2-Dichloroethane	1.00		1.00	μg/L μg/l,	5	5 0.6	
WSD022		1,2-Dichloropropane	1,00	_	1.00	μg/L	5	1	
WSD022		2-Butanone	5.00	_	5.00	με/L	NE	NE	
WSD022		2-Hexanone	5.00		5.00	μg/L	NE	NE	
WSD022		4-Methyl-2-pentanone	5,00		5,00	μg/L	NE	NE	
WSD022		Acetone	5.00		5,00	μ g /L	NE	NE .	
WSD022 WSD022		Benzene Bromodichloromethane	1.00 1.00		1.00	μg/L μg/L	5 NE	I NE	
WSD022		Bromoform	1.00		1.00	μg/L μg/L	NE	NE	
WSD022		Bromomethane	1.00		1.00	μg/L	NE	5	
WSD022	VOC	Carbon disulfide	5.00	U	5,00	μg/L	NE	60	
WSD022		Carbon tetrachloride	1.00		1,00	μg/L	5	5	
WSD022		Chlorobenzene	1.00		1.00	μg/L	100	5	
WSD022 WSD022		Chloroethane Chloroform	1.00	_	1.00 1.00	μg/l,	NE NE	5 7	
WSD022		Chloromethane	1.00	_	1.00	μg/L μg/L	NE NE	5	
WSD022		cis-1,2-Dichloroethylene	1.00		1.00	μg/l.	70	5	
WSD022		cis-1,3-Dichloropropylene	1.00		1.00	μg/L	NE	0,4°	
WSD022		Ethylbenzene	1.00		1.00	μg/L	700	5	
WSD022		Methylene chloride	10.00		10.00	μg/L	5	5	
WSD022		Styrene	1,00	_	1,00	μg/L	100	5	0.00
WSD022		l'etrachloroethylene	2.00		2.00	μ g/L	5	5	
WSD022 WSD022	 	l'oluene rans-1,2-Dichloroethylene	1.00	_	1,00	μg/L	1000	5	0000000
WSD022		rans-1,3-Dichloroemylene rans-1,3-Dichloropropylene	1,00 1.00		1,00	μg/L	NE	0.4°	
WSD022		Trichloroethylene	1.00	_	1,00	μg/L μg/L	NE 5	0.4 5	
WSD022		Vinyl chloride	1.00	_	1,00	μg/L μg/L	2	2	
WSD022		Kylenes (total)	1,00		1.00	μg/L	10000	5 ^f	9800000000000

Table 7-11

Surface Water	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	O Detection or Reporting Limit*	UNITES*	Federal Regulations MCLs**	NY State Water Quality Stds.**	**SDOG 30a
SWSD022	PAH	Acenaphthene	0.472	Ū	0.472	μg/L	NE	NE	
SWSD022	PAH	Acenaphthylene	0.472	U	0.472	μg/L	NE	NE	
SWSD022	РАН	Anthracene	0.472	U	0.472	μg/L	NE	NE	
SWSD022	PAH	Benzo(a)anthracene	0.047	U	0.047	μg/L	NE	NE	
SWSD022	PAH	Benzo(a)pyrene	0.047	U	0.047	μg/L	0.2	ND	
SWSD022	PAH	Benzo(b)fluoranthene	0.047	U	0.047	μg/L	NE	NE	
SWSD022	PAH	Benzo(ghi)perylene	0.047		0.047	μg/L	NE	NE	
SWSD022	PAH	Benzo(k)fluoranthene	0.024		0,024	μg/L	NE	NE	
SWSD022	PAH	Chrysene	0.047	U	0.047	μg/L	NE	NE	
SWSD022	PAH	Dibenzo(a,h)anthracene	0,047	-	0.047	μg/L	NE	NE	
SWSD022	PAH	Fluoranthene	0.047		0,047	μg/L	NE	NE	
SWSD022	РАН	Fluorene	0.472		0,472	μg/L	NE	NE	
SWSD022	PAH	Indeno(1,2,3-cd)pyrenc	0.047	_	0.047	μg/L	NB	NE	
SWSD022	PAH	Naphthalene	0.472	U	0.472	μg/L	NE	NE	
SWSD022	РАН	Phenanthrene	0.472		0.472	μg/L	NE	NE	
SWSD022	PAH	Pyrene	0.047	_	0.047	μg/L	NE	NE	
SWSD022	PCB	Arocior-1016	0.096	_	0.096	μg/L	0.5	0.09 ^g	
SWSD022	PCB	Aroclor-1221	0.096	U	0.096	µg/L	0.5	0.09 ^g	
SWSD022	РСВ	Aroclor-1232	0.096	U	0,096	μg/L	0.5	0.09^{8}	
SWSD022	PCB	Aroclor-1242	0.096	υ	0.096	μg/L	0.5	0.098	
SWSD022	РСВ	Arector-1248	0.096	U	0.096	μg/L	0.5	0.09 ⁸	
SWSD022	РСВ	Aroclor-1254	0.096	U	0.096	μg/L	0.5	0.09 ^E	98 (6) 13 8 (
SWSD022	PCB	Aroclor-1260	0.096	_	0.096	μg/L	0.5	0.09 ^g	
SWSD022	Pesticide	4,4'-DDD	0.0377	_	0.0377	μg/L	NE	0,3	
SWSD022	Pesticide	4,4'-DDE	0.0377	_	0.0377	μg/L	NE	0,2	
SWSD022	Pesticide	4,4'-DDT	0.0377	_	0,0377	μg/L	NE	0.2	
SWSD022	Pesticide	Aldrin	0,0189		0.0189	μg/L	NE	ND	
SWSD022	Pesticide	alpha-BHC	0.0189	U	0.0189	μg/L	NE	0.01	
SWSD022	Pesticide	alpha-Chlordane	0.0189		0.0189	μg/L	NE	NE	
SWSD022	Pesticide	beta-BHC	0.0189	U	0.0189	μg/L	NE	0.04	
SWSD022	Pesticide	delta-BHC	0.0189	U	0.0189	µg/L	NE	0.4	
SWSD022	Pesticide	Dieldrin	0.0377	υ	0.0377	μg/L	NE	0.001	
SWSD022	Pesticide	Endosulfan I	0.0189	U	0.0189	μg/L	NE	NE	
SWSD022	Pesticide	Endosulfan II	0.0377		0.0377	μg/L	NE	NE	
SWSD022	Pesticide	Endosulfan sulfate	0.0377		0,0377	μg/L	NE	NE	
SWSD022	Pesticide	Endrin	0.0377	_	0.0377	µg/L	_2	ND	
SWSD022	Pesticido	Endrin aldehyde	0.0377		0.0377	μg/1.	NE	5	
SWSD022	Pesticide	Endrin ketone	0.0377		0.0377	μg/L	NE		
SWSD022	Pesticide	gamma-BHC (Lindane)	0.0189		0.0189	μg/L	0.2	0.5	
SWSD022	Pesticide	gamma-Chlordanc	0.0189	_	0.0189	μg/L	NE	NE	
SWSD022	Pesticide	Heptachlor	0,0189		0.0189	μg/L	0.4	0.4	
SWSD022	Pesticide	Heptachlor epoxide	0.0189		0,0189	μg/L	0.2	0.3	
SWSD022	Pesticide	Methoxychlor	0,1890		0.1890	μg/L	40	35	
SWSD022	Pesticide	Toxaphene	0.4720	U	0,4720	μg/L	3	0.06	

Surface Water Lucation*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	CNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 10/2 SWSD024	Radiological	Radium-226	0,307		0.496	pCi/L	5ª	5ª	100
SWSD024	Radiological	Radium-228	1.760	+	0.490	pCi/L	5°	5°	100
5 (165)02-7	radiologicar	Total Radium a	1.760	+	0.075	pCi/L	5ª	5°	100
SWSD024	Radiological	Thorium-228	0,066	-	0.212	pCi/L	15 ^b	NE	400
SWSD024	Radiological	Thorium-230	0.117	U	0.233	pCi/L	15 ^b	NE	300
SWSD024	Radiological	Thorium-232	-0.001	U	0.207	pCi/L	15 ^b	NE	50
		Total Thorium b	Non-detect		<u> </u>	pCi/L	15 ⁶	NE	N
SWSD024	Radiological	Uranium-234	1,740	1	0.297	pCi/L	27°	NE	600
SWSD024	Radiological	Uranium-235	0.027	+	0.271	pCi/L	27°	NE	600
SWSD024	Radiological	Uranium-238	1,020	4	0.243	pCi/L	27°	NE	600
	1	Total Uranium ^e	2,760	L		pCi/L	27°	NE	600
SWSD024	Metal	Aluminum	1030	-	5	μg/L	50-200 ^d	NE	
SWSD024	Metal	Antimony	2,3		0.5	μg/L	10	3	
SWSD024 SWSD024	Metal	Arsenie ·		U	1.5	μg/L.	2000	25	
SWSD024 SWSD024	Metal Metal	Barium Beryllium	26.4	-	0.5	μg/L μg/L	Δ000 Δ	1000	
SWSD024	Metal	Boren	348.0	-	40,0	μg/L μg/L	NE.	1000	
SWSD024	Metal	Cadmium	0.1	-	0.1	μg/L	5	5	
SWSD024	Metal	Calcium	172000	-	200	μg/L	NE	NE	
SWSD024	Metal	Chromium	2.0	$\overline{}$	1.5	μg/L	100	50	
SWSD024	Metal	Cobalt	1.0	-	0.1	μg/L	NE	NE	
SWSD024	Metal	Copper	5.5	Γ	0,3	μg/L	1000	200	
SWSD024	Metal	Iron	1960	Γ	10	μg/L	300 ^d	300	
SWSD024	Metal	Lead	1.1	J	0,5	μg/L,	15	25	
SWSD024	Metal	Lithium	16.7	Г	2.0	μg/L	NE	NE	
SWSD024	Metal	Magnesium	58100.0		52.0	μg/L	NE	NE	
SWSD024	Metal	Manganese	49.9		1.0	μg/L	50 ^d	300	
SWSD024	Metal	Mercury	0,1	U	0.1	μg/L	2	0.7	
SWSD024	Mctal	Nickel	4.9		0.5	μg/L,	NE	100	
SWSD024	Metal	Potassium	13200	-	80	μg/L	NE	NE	
SWSD024	Metal	Selenium	1.0	-	1.0	μg/L	50	10	
SWSD024	Metal	Silver	0.2	-	0.2	μg/L	100 ^d	50	
SWSD024	Metal	Sodium	6750	-	80	μg/L	NE	20000	
SWSD024	Metal	Thallium	0.3	-	0,3	μg/L	2	NE 11	
SWSD024	Metal	Vanadium	3,0		3.0	μg/L	NE Second	14	
SWSD024 SWSD024	Metal VOC	Zinc	21.0 1,00	_	2.6 1.00	μg/L	5000 ^d	NE 5	
SWSD024	voc	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	1.00		1.00	μg/L μg/L	NE	5	
SWSD024		1,1,2-Trichlorocthane	1.00		1.00		5		
SWSD024	VOC	1,1-Dichloroethane	1.00		1,00	μg/L	NE	5	
SWSD024	VOC	1,1-Dichlorocthylene	1.00	Ų	1.00	μg/L	7	5	
WSD024	VOC	1,2-Dichloroethane	1.00		1,00	μg/L	5	0.6	
SWSD024	VOC	1,2-Dichloropropane	1.00		1,00	μg/L	5	1	
WSD024		2-Butanone	5.00	_	5.00	μg/L	NE	NE NE	
SWSD024 SWSD024	VOC	2-Hexanone 4-Methyl-2-pentanone	5.00 5.00	_	5.00 5.00	μg/L μg/L	NE NE	NE NE	
WSD024	VOC	Acctone	5.00	_	5.00	μg/L	NE	NE.	
WSD024		Benzene	1,00	_	1.00	μg/L	5	1	
WSD024		Bromodichleromethane	1.00	_	1.00	μg/L	NE	NE	
WSD024		Bromoform	1.00	_	1.00	μg/L	NE	NE	
WSD024		Bromomethane	1,00	_	1.00	μg/L	NE	5	
WSD024		Carbon disulfide	5.00	_	5.00	μg/L	NE	60	
WSD024 WSD024	VOC	Carbon tetrachloride Chlorobenzene	1.00		1,00 1.00	μg/L μg/L	100	5 5	
WSD024		Chloroethane	1.00	-	1.00	μg/L μg/L	NE	5	
WSD024	+	Chloroform	1.00	-	1.00	μg/L	NE	7	
WSD024		Chloromethane	1.00	_	1.00	μg/L	NE	5	
WSD024		cis-1,2-Dichlorocthylene	1.00		1.00	μg/L	70	5	
WSD024	VOC	cis-1,3-Dichloropropylene	1.00	U	1.00	μg/l,	NE	0.4°	
WSD024		Ethylbenzene	1.00	_	1,00	μg/L	700	5	
WSD024		Methylene chloride	10.00		10.00	μ g/ L	5	5	
WSD024		Styrene	1.00	-	1,00	μg/L	100	5	
WSD024 WSD024	· · · · · · · · · · · · · · · · · · ·	Fetrachloroethylene Foluene	2.00 1.00	_	2.00 1.00	μg/L μg/L	1000	5	
WSD024 WSD024		rans-1,2-Dichloroethylene	1.00	$\overline{}$	1.00	μg/L μg/L	1000	5	
WSD024		rans-1,2-Dichloropropylene	1.00	-	1.00	μg/L	NE NE	0.4e	
WSD024		l'richloroethylene	1.00	_	1.00	μg/L μg/L	5	5.7	
WSD024		Vinyl chloride	1.00	-	1.00	μg/L	2	2	
WSD024		Xylenes (total)	1.00	-	1.00	μg/L	10000	5 ^f	

Table 7-15

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	OUALIFIER*	Detection or Reporting Limit*	CNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	#*SOU HOU
SWSD024	PAH	Acenaphthene	0.485	U	0.485	μg/L	NE	NE	
SWSD024	PAH	Accnaphthylene	0,485		0.485	μg/L	NE	NE	
SWSD024	PAH	Anthracene	0.485	U	Section of the Control of State Section of the Control of the Cont	μg/L	NE	NE.	
SWSD024	PAH	Benzo(a)anthracene	0.049		0.049	μg/L	NE	NE.	
SWSD024	PAH	Benzo(a)pyrene	0,049		0.049	μg/L	0.2	ND	
SWSD024	PAH	Benzo(b)fluoranthene	0.049		0,049	μg/L	NE	NE	
SWSD024	PAH	Benzo(ghi)perylene	0.049		0,049	μg/L	NE	NE	
SWSD024	PAH	Benzo(k)fluoranthene	0.024	U	0,024	μg/L	NE	NE	
SWSD024	PAH	Chrysene	0.049		0.049	μg/L	NE	NE	
SWSD024	PAH	Dibenzo(a,h)anthracene	0.049	U	0.049	μg/L	NE	NE	
SWSD024	PAH	Fluoranthene	0.049	U	0.049	μg/L	NE	NE	
SWSD024	PAH	Fluorene	0.485	U	0,485	μg/L	NE	NE	
SWSD024	PAH	Indeno(1,2,3-cd)pyrene	0.049	U	0.049	μg/L	NE	NE	
SWSD024	PAH	Naphthalene	0.485	U	0.485	μg/L	NE	NE	
SWSD024	PAH	Phonanthrene	0.485	U	0.485	μg/L	NE	NE	
SWSD024	PAH	Pyrene	0.049	U	0.049	μg/L	NE	NE.	
SWSD024	PCB	Aroclor-1016	0.094	U	0.094	μg/L	0.5	0.09 ^g	
SWSD024	PCB	Aroclor-1221	0.094	U	0.094	μg/L	0.5	0.09g	
SWSD024	РСВ	Aroelor-1232	0.094	1)	0.094	μg/L	0.5	0.09 ^g	
SWSD024	РСВ	Aroclor-1242	0.094	-	0.094	μg/L	0.5	0.09 ⁸	
SWSD024	PCB	Areclor-1248	0.094	IJ	0,094	μg/L	0.5	0.098	
SWSD024	PCB	Aroclor-1254	0.094	_	0.094	μg/L	0.5	0.09 ^g	
SWSD024	PCB	Aroclor-1260	0.094	Ė	0.094	μg/L	0.5	0.09 ^E	
SWSD024	Pesticide	4,4'-DDD	0,0385		0.0385	μg/L	NE	0.3	
SWSD024	Pesticide	4,4'-DDE	0.0385	_	0.0385	μg/L	NE	0.2	
SWSD024	Pesticide	4,4'-DDT		U	0.0385	μg/L	NE	0.2	
SWSD024	Pesticide	Aldrin		U	0.0192	με/L	NE	ND	
SWSD024		alpha-BHC		Ŭ	0.0192	μg/L	NE	0.01	
SWSD024	Pesticide	alpha-Chlordane		Ü	0.0192	μg/L	NE	NE	
SWSD024	Pesticido	bcta-BHC	0,0192		0.0192	μg/L	NE	0,04	
WSD024		delta-BHC		U	0.0192	μg/L	NE	0.4	10.00
SWSD024		Dieldrin	0.0385		0.0385	μg/L	NE	0.001	1110111
WSD024	Pesticide	Endosulfan I		U	0.0192	με/L	NE	NE	
WSD024	Pesticide	Endosulfan II	0.0385	U	0.0385	μg/L	NE	NE	
WSD024	Pesticide	Endosulfan sulfate		U	0.0385	μg/L	NE	NE	
WSD024	Pesticide	Endrin	0.0385	U	0.0385	μg/L	2	ND	
WSD024	-, -,	Endrin aldehyde		U	0.0385	μg/L	NE	5	
WSD024	Pesticide	Endrin ketone	0.0385	Ū	0.0385	μg/l	NE	5	
WSD024	Pesticide	gamma-BHC (Lindane)	0.0192	U	0.0192	μg/L	0.2	0.5	
WSD024		gamma-Chlordane	0.0192	U	0.0192	μg/L	NE	NE	
WSD024		Heptachlor	0.0192	Ū	0.0192	μg/L	0.4	0.4	
WSD024		Heptachlor epoxide	0.0192	U	0.0192	μg/L	0.2	0.3	
WSD024		Methoxychlor	0.1920	U	0.1920	μg/L	40	35	
WSD024		Toxaphene	0.4810	Ū	0.4810	μg/L	3	0.06	0.05686

Surface Water Location* Sample Date: 10/2	PARAMETER*	ANALYTE	RESULT	OUALIFIER*	Detection or Reporting Limit*	CNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
WDD1	Radiological	Radium-226	0,388	U	0,434	pCi/L	5ª	5ª	100°
WDD1	Radiological	Radium-228	0.521	U	0.918	pCi/L	5ª	5ª	100°
		Total Radium ^a	Non-detect	L		pCi/L	5ª	5ª	100°
WDD1	Radiological	Thorium-228	0,133	+	0.276		15 ^b	NE	400
WDD1	Radiological	Thorium-230	0.274	+	0.128	-	15 ^h	NE	300
WDDI	Radiological	Thorium-232	0.055	+	0.077	pCi/L	15 ^b	NE	50
WDD1	D!:_1:t	Total Thorium b	0.274	-	0.005	pCi/L	15 ^b	NE	NE coos
WDD1	Radiological Radiological	Uranium-234 Uranium-235	0.881	-	0.085	pCi/L pCi/L	27 ^c	NE NE	600°
WDD1	Radiological	Uranium-238	0.076	+	0.165	pCi/L	27°	NE.	600°
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	radiological	Total Uranium ^c	1.306	-	0,103	pCi/L	27°	NE	600°
WDD1	Metal	Aluminum	417.0	_	5.0	μg/L	50-200 ^d	NE	
WDD1	Metal	Antimony	1.1	-	0.5	μg/L	6	3	
WDD1	Metal	Arsenic	3.3	J	1.5	μg/J.	10	25	
WDDI	Metal	Barium	36.2		0.5	μg/L	2000	1000	
WDD1	Metal	Beryllium	0,1	-	0,1	μg/L	4	11	
WDD1 WDD1	Metal Metal	Boron Cadmium	265.0		20.0	μg/L	NE 5	1000	
WDD1	Metal	Calcium	93100.0	•	0.1 400.0	μg/L μg/L	NE.	NE	
WDD1	Metal	Chromium	1.5	-	1.5	<u>н</u> у.∟ μу/L	100	50	
WDD1	Mctal .	Cobalt	1,8	Ť	0,1	μg/L	NE	NE.	
WDD1	Metal	Copper	15.6		0.3	μg/L	1000	200	
WDD1	Metal	Iron	970.0		10.0	μg/L	300 ^d	300	
WDD1	Metal	Lead	0.8	j	0.5	μg/L	15	25	
WDD1	Metal	Lithium	17.4	L.	2.0	μg/L	NE	NE	
WDD1	Metal	Magnesium	33100.0		104.0	μg/L	NE sed	NE	
WDD1 WDD1	Metal	Manganese	20.5	17	1.0	μg/L	50 ^d	300	
WDD1	Metal Metal	Mercury Nickel	8.3	U	0.1 0.5	μg/L μg/L	NE NE	0.7 100	
WDD1	Metal	Potassium	74000.0	-	1600.0	μg/L	NE	NE	
WDD1	Metal	Selenium	1,0	U	1,0	μg/L	50	10	
WDD1	Metal	Silver	0.2	U.	0.2	μg/L	100 ^d	50	
WDD1	Metal	Sodium	52200.0		1600.0	μg/L	NE	20000	
WDDI	Metal	Thallium	0.3		0.3	μg/L	2	NE	
WDD1	Metal	Vanadium	3.0	U	3,0	μg/L	NE	14	
WDD1 WDD1	Metal VOC	Zinc 1,1,1-Trichloroethane	112.0	11	2.6 1.00	μg/L μg/L	5000 ^d 200	NE 5	
WDDI	voc	1,1,2,2-Tetrachloroethane	1.00		1.00	μg/L	NE.	5	
WDDI	VOC	1,1,2-Trichleroethane	1.00		1.00	μg/L	5	. 1	10.00
WDD1	VOC ·	1,1-Dichloroethane	1.00		1,00	μg/L	NE	5	
WDD1 WDD1	VOC	1,1-Dichloroethylene	1.00		1,00	μg/Ĺ	7	5	
WDD1	VOC	1,2-Dichloroethane 1,2-Dichloropropane	1.00		1,00 1,00	μg/L μg/L	5	0.6	
WDD1	voc	2-Butanone	5.00	_	5.00	μg/L	NE NE	NE	
WDD1	VOC	2-Hexanone	5.00	U	5.00	μg/L	NE	NE	
WDDI	VOC	4-Methyl-2-pentanone	5.00	į	5.00	μg/L	NE	NE	
WDD1 WDD1	VOC	Acetone Benzene	5,00 1.00		5.00 1.00	μg/L μg/L	NE 5	NE I	
WDD1	voc	Bromodichloromethane	1.00		1.00	μg/L	NE	NE.	
VDD1		Bromoform	1.00	Ų	1.00	μg/L	NE	NE	
WDDI	VOC	Bromomethane	1.00		1,00	μg/L	NE	5	
VDD1	VOC	Carbon disulfide	5.00		5.00	μg/L	NE	60	
VDD1 VDD1	VOC VOC	Carbon tetrachloride Chlorobeazene	1,00		1,00	μg/L μg/L	100	5 5	
VDD1	VOC	Chloroethane	1.00	$\overline{}$	1.00	μg/L μg/L	NE	5	
VDDI	voc	Chloroform	1.00	U	1.00	μg/l.	NE NE	7	
VDD1	VOC	Chloromethane	1,00		1.00	μg/L	NE	5	
VDD1		cis-1,2-Dichloroethylene	1.00		1,00	μg/L	70	5	
VDD1		cis-1,3-Dichloropropylene Ethylbenzene	1,00 1.00		1.00	μg/L	NE 700	0.4°	
VDD1		Ethylbenzene Methylene chloride	10.00	\rightarrow	1.00	μg/L μg/L	700	5	
VDD1		Styrene	1.00		1,00	μg/L μg/L	100	5	
VDD1	VOC	Tetrachloroethylene	2.00	U	2,00	μg/L	5	5	
VDD1		Toluene	1.00	_	1.00	μg/L	1000	5	
VDD1		trans-1,2-Dichloroethylene	1.00	-	1.00	μg/L	100	5	28 32 38 33 32 38
VDD1 VDD1		trans-1,3-Dichloropropylene Trichloroethylene	1,00	- 1	1.00	μg/L	NE 5	0.4°	
VDDI		Frichtoroethylene Vinyl chloride	1.00	_	1.00	μg/L μg/L	2	5 2	
			1.00	: 1 0	CONTRACTOR STATE	rg u	4	4	505 105 50 105 60

Table 7-17

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	O Detection or S.Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCG**
WDD1	PAH	Acenaphthene	0.476	U	0.476	μg/L	NE	NE	
WDD1	PAH	Acenaphthylene	0.476	U	0,476	μg/L	NE	NE	
WDDI	PAH	Anthracene	0.476	U	0,476	μg/L	NE.	NE	
WDDI	PAH	Benzo(a)anthracene	0.0476	U	0.0476	μg/L	NE	NE	
WDD1	PAH	Benzo(a)pyrene	0.0476	U	0.0476	μg/L	0.2	ND	
WDDI	PAH	Benzo(b)fluoranthene	0.0476		0.0476	μg/L	NE	NE	
WDDI	PAH	Benzo(ghi)perylene	0.0476	U	0.0476	μg/L	NE	NE	
WDDI	PAH	Benzo(k)fluoranthene	0.0238	υ	0.0238	μg/L	NE	NE	
WDDI	PAH	Chrysene	0.0476	Ü	0.0476	μg/L	NE	NE	
IDDW	PAH	Dibenzo(a,h)anthracene	0.0476	U	0.0476	μg/L	NE	NE	
MDDI	PAH	Fluoranthene	0.0476	_	0,0476	μg/L	NE	NE	
WDDI	PAH	Fluorene	0.476	U	0.476	μg/L	NE	NE	
1DDW	PAH	Indeno(1,2,3-cd)pyrene	0.0476	U	0.0476	μg/L	NE	NE	
WDD1	PAH	Naphthalone	0.476	υ	0.476	μg/L	NE	NE	
WDD1	РАН	Phenanthrene	0.476	U	0.476	μg/L	NE	NE	
IDDW	PAH	Pyrene	0.0476	U	0,0476	μg/L	NE	NE	
VDD1	PCB	Aroclor-1016	0.094	U	0.094	μg/L	0,5	0.09 ^g	
NDD1	PCB	Aroclor-1221	0.094	U	0.094	μg/L	0.5	0.098	
VDDI	PCB	Aroclor-1232	0,094	-	0,094	μg/L	0.5	0.09g	
VDD1	PCB	Aroclor-1242	0.094	_	0.094	μg/L	0,5	0.09g	
WDDI	PCB	Aroclor-1248	0.094	_	0.094	μg/L	0.5	0.098	
VDD1	PCB	Aroclor-1254		IJ	0.094	μg/L	0.5	0.098	
VDD1	PCB	Aroclor-1260	0.0943	_	0.0943	μg/L	0.5	0,09 ^g	
VDD1	Pesticide	4.4'-DDD		υ	0.0381	дg/L дg/L	NE	0.07	
VDDI	Pesticide	4.4'-DDE		U	0.0381	μg/L μg/L	NE	0.3	10.000
VDD1	Pesticide	4.4'-DDT		U I	0.0381	μg/L	NE	0.2	
VDD1	Pesticide	Aldrin	0.0190	_	0.0190	μg/L	NE	ND	89688039
VDD1	Pesticide	alpha-BHC	0.0190	_	0.0190	μg/L	NE	0.01	
VDD1	Pesticide	alpha-Chlordane	0.0190	_	0.0190	цg/L	NE.	NE	
VDD1	Pesticide	beta-BHC	0.0190		0.0190	μg/L	NE	0.04	
VDD1		delta-BHC	0,0190		0.0190	μg/L	NE	0.4	
VDDI	Pesticide	Dieldrin		Ū	0,0381	μg/L	NE	0,001	
VDD1	Pesticide	Endosulfan [0.0190		0,0190	μg/L	NE	NE	1000000
VDDI		Endosulfan II	0.0381		0.0381	μg/L	NE	NE	191-1911
VDD1		Endosulfan sulfate	0.0381		0,0381	μg/L	NE	NE	
VDD1		Endrin	0.0381	_	0.0381	με/L	2	ND	
VDD1		Endrin aldehyde	0.0381	_	0.0381	μg/L	NE	5	
VDD1		Endrin ketone	0.0381	_	0.0381	μg/L	NE	5	
VDD1		gamma-BHC (Lindanc)	0.0190	_	0.0190	μg/L	0.2	0.5	
VDD1	Pesticide	gamma-Chlordanc	0.0190	_	0.0190	μg/L	NE	NE	
VDD1		Heptachlor	0.0190	υ	0.0190	μg/L	0.4	0.4	
VDD1		Heptachlor epoxide	0.0190	_	0,0190	μg/L	0.2	0.3	
VDD1		Methoxychlor		U	0.1900	μg/L	40	35	
/DD1		Toxaphene	0.4760	u l	0.4760	μg/L	3	0.06	

Surface Water Location* Sample Date: 10/2	PARAMETER*	ANALYTE	RESULT	OUALIFIER*	Detection or Reporting Limit*	CNITTS*	Federal Regulations MCLs**	NX State Water Quality Stds.**	DOE DCGs**
WDD2	Radiological	Radium-226	0,328	U	0.588	pCi/L	5ª	5*	100°
WDD2	Radiological	Radium-228	1.650	+	0.960	_	5ª	5ª	100ª
		Total Radium ^a	1.650	T		pCi/L	5 ^a	5ª	100ª
WDD2	Radiological	Thorium-228	0,086	U	0,227	pCi/L	15 ^b	NE	400
WDD2	Radiological	Thorium-230	0.111	U	0.171	pCi/L	15 ^b	NE	300
WDD2	Radiological	Thorium-232	0.027	_	0.171	pCi/L	15 ^b	NE	50
		Total Thorium ^b	Non-detect	+		pCi/L	15 ^b	NE	NE
WDD2	Radiological	Uranium-234	0.746	_	0,148	_	27°	NE	600°
WDD2	Radiological	Uranium-235	0.104	-	0.094	pCi/L	27°	NE	600°
WDD2	Radiological	Uranium-238 Total Uranium c	0.394	-	0.076	_	27°	NE NE	600°
WDD2	Metal	Aluminum	1,244 309.0	\vdash	5.0	pCi/L μg/L	50-200 ^d	NE NE	000
WDD2	Metal	Antimony	1,1	-	0,5	μg/L μg/L	50-200	3	
WDD2	Metal	Arsenic	3.8	-	1.5	μg/L	10	25	
WDD2	Metal	Barium	39.0	_	0.5	μg/L	2000	1000	
WDD2	Metal	Beryllium	0,1	U	0.1	μg/L	4	11	
WDD2	Mctal	Boron	281.0	_	20.0	μg/L	NE	1000	
WDD2	Metal	Cadmium	0.1	-	0.1	μg/L	5	5	
WDD2	Metal	Calcium	97000.0	-	400.0	μg/L	NE 100	NE 50	
WDD2 WDD2	Metal Metal	Chromium Cobalt	1.5 1.9	-	1.5 0.1	μg/L μg/L	NE	50 NE	
WDD2	Metal	Copper	15.3	┢	0.1	μg/L μg/L	1000	200	
WDD2	Metal	Iron	888.0	1	10.0	μg/L	300 ^d	300	
WDD2	Metal	Lead	0.6	_	0.5	μg/L	15	25	
WDD2	Metal	Lithium	17.9		2.0	μg/L	NE	NE	
WDD2	Metal	Magnesium	34500.0		104.0	μg/L	NE	NE	
WDD2	Metal	Manganese	17.5	L	1.0	μg/L	50 ^d	300	
WDD2	Metal	Mercury	0.1	U	0,1	μg/L	2	0.7	
WDD2 WDD2	Metal Metal	Nickel Potassium	8.8 74300.0	-	0.5 1600.0	μg/L	NE NE	I00 NE	
WDD2	Metal	Selenium	1,1	ĭ	1,0	μg/L μg/L	50	10	-
WDD2	Metal	Silver	0.2	-	0.2	μg/L	1004	50	
WDD2	Metal	Sodium	54100.0	Ė	1600.0	μg/L	NE	20000	
WDD2	Metal	Thallium	0.3	U	0.3	μg/L	2	NE	
WDD2	Metal	Vanadium	3.0	U	3.0	μg/L	NE	14	
WDD2	Metal	Zinc	112.0	L	2.6	μg/L	5000 ^d	NE	
WDD2 WDD2	VOC	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	1.00		1.00	μg/L	200	5	
WDD2	voc	1,1,2-Trichloroethane	1.00	-	1.00	μg/∟ μg/∟	NE 5	5	
WDD2	VOC	1,1-Dichloroethane	1.00		1.00	μg/L	NE	5	
WDD2	VOC	1,1-Dichloroethylene	1.00	_	1.00	μg/L	7	5	100
WDD2	VOC	1,2-Dichloroethane	1.00		1.00	μg/L	5	0.6	
WDD2 WDD2	VOC	1,2-Dichloropropane 2-Butanone	1,00 5,00		1,00 5.00	μg/l. μg/Ĺ	5 NE	l NE	
WDD2	VOC	2-Hexanone	5.00	-	5.00	μg/L μg/L	NE	NE	
WDD2	VOC	4-Methyl-2-pentanone	5.00		5,00	μg/L	NE	NE	
WDD2	VOC	Acctone	5,00	$\overline{}$	5.00	μg/L	NE	NE	
WDD2 WDD2	VOC	Benzene Bromodichloromethane	1.00		1.00	μg/L	5 NE	I NIE	
WDD2	VOC	Bromodichloromethane Bromoform	1.00		1.00	μg/L μg/L	NE NE	NE NE	
WDD2	VOC	Bromomethane	1.00		1.00	μg/L μg/L	NE NE	5	
VDD2	VOC	Carbon disulfide	5.00	_	5.00	μg/L	NE	60	
WDD2	VOC	Carbon tetrachloride	1.00		1.00	μg/L	5	5	
VDD2 VDD2	VOC	Chlorobenzene	1.00	\rightarrow	1.00	μg/L	100 NE	5	
VDD2	VOC VOC	Chloroethane Chloroform	1.00		1,00	μg/L μg/L	NE NE	5 7	
VDD2	VOC	Chloromethane	1.00	-	1.00	μg/L	NE NE	5	
VDD2	· · · · · · · · · · · · · · · · · · ·	cis-1,2-Dichloroethylene	1.00		1.00	μg/L	70	5	
VDD2		cis-1,3-Dichloropropylene	1.00		1,00	μg/L	NE	0.4 ^e	
VDD2		Ethylbenzene	1.00	_	1,00	μg/L	700	5	
VDD2 VDD2		Methylene chloride Styrene	10.00	_	10.00	μg/L	5 100	5 5	
VDD2		Styrene Tetrachloroethylene	1,00 2,00	$\overline{}$	2.00	μg/L μg/L	100	5	
VDD2		Toluene	1.00	_	1.00	μg/L μg/L	1000	5	
VDD2	voc	trans-1,2-Dichloroethylene	1.00	_	1.00	μg/L	100	5	
VDD2		trans-1,3-Dichloropropylene	1.00	_	1,00	μg/L	NE	0.4 ^e	
VDD2		Trichloroethylene Vinyl chloride	1.00 1.00	_	1,00	µg/L	5	5	
VDD2					1.00	μg/L	2	2	一つのでは、大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大

Table 7-19

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Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCL.s**	NY State Water Quality Stds.**	DOE DCGs**
WDD2	PAH	Acenaphthene	0.476	U	0.476	μg/L	NE	NE	
WDD2	PAH	Acenaphthylene	0.472	U	0.472	μg/L	NE	NE	
WDD2	PAH	Anthracene	0.476	U	0.476	μg/L	NE	NE	
WDD2	PAH	Benzo(a)anthracene	0.048	U	0.048	μg/L	NE	NE	
WDD2	РАН	Benzo(a)pyrene	0.048	U	0.048	μg/L	0.2	ND	
WDD2	PAII	Benzo(b)fluoranthene	0.048	U	0.048	μg/L	NE	NE	
WDD2	PAH	Benzo(ghi)perylene	0.048	U	0.048	μg/L	NE	NE	
WDD2	PAH	Benzo(k)fluoranthene	0.024	U	0.024	μg/L	NE	NE	
WDD2	PAH	Chrysene	0.048	כ	0.048	μg/L	NE	NE	
WDD2	PAH	Dibenzo(a,h)anthracene	0.048		0.048	µg/L	NE	NE	
WDD2	PAH	Fluoranthene	0.048	-	0.048	μg/L	NE	Ν£	
WDD2	PAH	Fluorene	0,476	U	0.476	μg/L	NE	NE	
WDD2	PAH	Indeno(1,2,3-cd)pyrene	0.048		0.048	μg/L	NE	NE	
WDD2	PAH	Naphthalene	0.472		0,472	μg/L	NE	NE	
WDD2	PAH	Phenanthrene	0.476		0.476	μg/L	NE	NE	
WDD2	PAH	Pyrene	0.048	U	0.048	μg/L_	NE	NE	
WDD2	PCB	Aroclor-1016	0.094	U	0.094	μg/L	0.5	0.09 ^g	
WDD2	РСВ	Aroclor-1221	0.094	U	0.094	μg/L	0.5	0.09 ^g	
WDD2	РСВ	Areclor-1232	0.094	U	0.094	μ ε/ L	0.5	0.098	
WDD2	PCB	Aroclor-1242	0.094	U	0.094	μg/L	0.5	0.09 ⁸	
WDD2	PCB	Aroclor-1248	0.094	U	0.094	μg/L	0,5	0.09 ^g	
WDD2	РСВ	Aroclor-1254	0.094	-	0.094	μg/L	0.5	0.098	
WDD2	PCB	Aroclor-1260		U	0,0943	μg/L	0.5	0.09 ⁸	
WDD2	Pesticide	4,4'-DDD	0.0377	_	0.0377	μg/L	NE	0.03	
WDD2	Pesticide	4,4'-DDE	0.0377		0.0377	μg/L	NE	0.2	
WDD2	Pesticide	4,4'-DDT		U	0.0377	ug/L	NE	0.2	
WDD2	Pesticide	Aldrin	0.0189	_	0.0189	μg/L	NE	ND	
WDD2	Pesticide	alpha-BHC	0.0189		0.0189	μg/L	NE.	0,01	
WDD2	Pesticido	alpha-Chlordanc	0.0189		0.0189	μg/L	NE	NE	
WDD2	Pesticide	beta-BHC	0.0189		0.0189	μg/L	NE	0.04	
WDD2	Pesticide	delta-BHC	0.0189	U	0.0189	ug/L	NE	0.4	
WDD2	Pesticide	Dieldrin	0.0377		0.0377	μg/L	NE	0.001	
WDD2	Pesticide	Endosulfan I	0.0189	U	0.0189	μg/L	NE	NE	
WDD2	Pesticide	Endosulfan II		U	0.0377	μg/L	NE	NE	
WDD2	Pesticide	Endosulfan sulfate	0.0377	U	0.0377	μg/L	NE	NE	
WDD2	Pesticide	Endrin	0.0377	U	0.0377	μg/L	2	ND	
WDD2	Pesticide	Endrin aldehyde	0.0377	U	0.0377	μg/L	NE	5	
WDD2	Pesticide	Endrin ketone	0.0377	U	0.0377	μg/L	NE	5	
WDD2	Pesticide	ganıma-BHC (Lindane)	0.0189	U	0.0189	μg/L	0,2	0.5	
WDD2	Pesticide	gamma-Chlordane	0.0189	U	0.0189	μg/L	NE	NE	
WDD2	Pesticide	Heptachlor	0.0189	U	0.0189	μg/L	0.4	0.4	
WDD2	Pesticide	Heptachlor cpox de	0.0189	υ	0.0189	μg/L	0,2	0.3	
WDD2	Pesticide	Methoxychlor	0,1890	_	0.1890	μg/L	40	35	
WDD2	Pesticide	Toxaphene	0.4720	υĪ	0.4720	μg/L.	3	0.06	

Surface Water Location*	PARAMETER*	ANALYTE	RESULT	OUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 10/28 WDD3	1	In. 11 207	0.516	Irr	0.620	-0.4		_a	1002
WDD3	Radiological Radiological	Radium-226 Radium-228	0.515	+	0.520 0.966	pCi/L	5ª	5* 5*	100°
WDD3	Radiologicai	Total Radium a	1.750	-	0.900	pCi/L pCi/L	5 ^a	5°	100°
WDD3	Radiological	Thorium-228	0.157	-	0.186		15 ^b	NE	400
WDD3	Radiological	Thorium-230	0.137	+	0.186	pCi/L	15 ^b	NE NE	300
WDD3	Radiological	Thorium-232	-0.002	-	0.201	pCi/L	15 ^b	NE NE	50
WDD3	Kadiological	Total Thorium b		۲	0.094	pCi/L	15 ^b	NE NE	NE NE
WDD3	Radiological	Uranium-234	Non-detect 0.339	┢	0.205	_	27°	NE NE	600°
WDD3	Radiological	Uranium-235	0.018	-	0.203	pCi/L pCi/L	27°	NE NE	600°
WDD3	Radiological	Uranium-238	0.625	U	0,178	pCi/L	27°	NE.	600°
11 003	Radiological	Total Uranium c	0.964	H	0,124	pCi/L	27°	NE NE	600°
WDD3	Metal	Aluminum	1870	7	5.	μg/L	50-200 ^d	NE	000
WDD3	Metal	Antimony	1.1	-	0.5	μg/L μg/L	50-200	3	
WDD3	Metal	Arsenie	1,8	-	1,5	μg/L	10	25	10.00
WDD3	Metal	Barium	54.4	Ė	0.5	μg/L	2000	1000	
WDD3	Metal	Beryllium	0.1	U	0.1	μg/L	4	11	
WDD3	Metal	Boron	298.0	-	40.0	μg/L	NE	1000	
WDD3	Metal	Cadmium	0.1	Ü	0.1	μg/L	5	5	
WDD3	Metai	Calcium	105000		200	μg/L	NE	NE.	
WDD3	Metal	Chromium	3.2		1.5	μg/L	100	50	
WDD3	Metal	Cobalt	2.6		0.1	μg/L	NE	NE	
WDD3	Metal	Соррег	17,1		0.3	μg/L	1000	200	
WDD3	Metal	Iron	2860	L	10	μg/L	300 ^d	300	
WDD3	Metal	Lead	1.8	J	0,5	μg/L	15	25	100000
WDD3	Metal	Lithium	19,4	_	2.0	μg/L	NE	NE.	
WDD3	Metal	Magnesium	34700.0		5.2	μg/L	NE	NE	
WDD3	Metal	Manganese	169.0	_	1.0	μg/L	50 ^d	300	
WDD3	Metal	Mercury	0.1	U	0.1	μg/L	2	0.7	
WDD3	Metal	Nickel	10,2	-	0,5	μg/L	NE	100	
WDD3 WDD3	Metal Metal	Potassium Salanium	68700 1.0	ΣT	800 1.0	μg/L	NE 50	NE 10	
WDD3	Metal	Sclenium Silver	0.2	_	0.2	μg/L	100 ^d	50	
WDD3	Metal	Sodium	54200	۲	800	μg/L	NE NE	20000	
WDD3	Metal	Thallium	0.3	11	0.3	μg/L μg/L	2	NE	
WDD3	Metal	Vanadium	4.2	_	3.0	μg/L	NE.	14	
WDD3	Metal	Zine	116.0	-	2.6	μg/L	5000 ^d	NE	
WDD3	VOC	1,1,1-Trichlorocthane	1.00	υ	1,00	μg/L	200	5	
WDD3	VOC	1,1,2,2-Tetrachloroethane	1.00	U	1.00	μg/L	NE	5	
WDD3		1,1,2-Trichloroethane	1.00		1,00	μg/L	5	1	
WDD3	VOC	1,1-Dichloroethane	1.00		1,00	μg/L	NE	5	
WDD3	VOC	1,1-Dichloreethylene	1.00		1.00	μg/L	7	5	
WDD3 WDD3	VOC VOC	1,2-Dichloroethane 1,2-Dichloropropane	1.00		1.00 1.00	μg/L μg/L	5 5	0.6	
WDD3	voc	2-Butanone	5.00		5.00	μg/L μg/L	NE.	NE	
WDD3	VOC	2-Hexanone	5.00		5.00	μg/l,	NE	NE	
WDD3	VOC	4-Methyl-2-pentanone	5.00		5.00	μg/L	NE	NE	
WDD3	VOC	Acctone	5.00	U	5.00	μg/L	NE	NE	
WDD3	VOC	Benzene	1.00		1,00	μg/[.		1	
WDD3	VOC	Bromodichloromethane	1.00		1.00	μg/L	NE	NE.	
VDD3 VDD3	VOC .	Bromoform Bromomethane	1.00		1.00	μg/L	NE	NE	
VDD3	VOC	Carbon disulfide	1.00 5.00		1.00 5.00	μg/L μg/L	NE NE	5 60	
VDD3	voc	Carbon tetrachloride	1.00		1,00	μg/L	5	5	
VDD3	VOC	Chlorobenzene	1.00		1,00	μg/L	100	5	100
VDD3		Chloroethane	1.00		1.00	μg/L	NE	5	
VDD3		Chloroform	1.00	_	1.00	μg/∟	NE	7	
VDD3	VOC	Chloromethane	1.00		1.00	μ g /L	NE	5	
VDD3	 	cis-1,2-Dichloroethylene	1.00	_	1.00	μg/L	70	5	
VDD3		cis-1,3-Dichloropropylene	1.00		1,00	μg/L	NE	0.4°	
VDD3 VDD3		Ethylbenzene Mathylana ablasida	1.00	_	1.00	μg/L	700	5	
VDD3 VDD3		Methylene chloride Styrene	10.00		10,00	μg/l. μg/L	100	5 5	
VDD3		Styrene Fetrachloroethylene	2.00	_	2.00	μg/L μ g/ L	100	5	
VDD3		Foluene	1.00	_	1.00	иg/L µg/L	1000	5	
VDD3		trans-1,2-Dichloroethylene	1.00		1,00	μg/L	100	5	
VDD3	-	rans-1,3-Dichloropropytene	1.00	_	1,00	μg/L	NE	0.4 ^e	
VDD3		Frichloroethylene	1.00		1.00	μg/L	5	5	
VDD3	VOC	Vinyl chloride	1,00		1,00	μg/L	2	2	
VDD3	VOC	Xylenes (total)	1.00	nΠ	1.00	μg/L	10000	5 ^f -	SUCCESSOR.

Table 7-21

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Surface Water Location*	PARAMETER*	ANALYTE	RESULT	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCG***
WDD3	PAH	Acenaphthene	0.472	U	0.472	μg/L	NE	NE	
WDD3	PAH	Acenaphthylene	0.472	U	0,472	μg/L	NE	NE	
WDD3	PAH	Anthracene	0.472	U	0.472	μg/l,	NE	NE	
WDD3	PAH	Benzo(a)anthracene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Benzo(a)pyrene	0.047	U	0,047	μg/L	0.2	ND	
WDD3	PAH	Benzo(b)fluoranthene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Benzo(ghi)perylene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Benzo(k)fluoranthene	0.024	U	0,024	μg/L	NE	NE	
WDD3	PAH	Chrysene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Dibenzo(a,h)anthracene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Fluoranthene	0.047	U	0.047	µg/L	NE	NE	
WDD3	PAH	Fluorene	0.472	Ų	0.472	μg/L	NE	NE	
WDD3	PAH	Indeno(1,2,3-cd)pyrene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PAH	Naphthalene	0.472	U	0.472	μg/L	NE	NE	
WDD3	PAH	Phenanthrene	0.472	U	0.472	μg/L	NE	NE	
WDD3	PAH	Pyrene	0.047	U	0.047	μg/L	NE	NE	
WDD3	PCB	Aroclor-1016	0.095	U	0.095	μg/L	0.5	0.09 ^g	
WDD3	PCB	Aroclor-1221	0.095	U	0.095	μg/L	0.5	0,09 ^g	
WDD3	PCB	Aroclor-1232	0.095	U	0.095	μg/L	0.5	0.09 ^g	
WDD3	PCB	Aroclor-1242	0.095		0.095	μg/L	0,5	0.09g	
WDD3	РСВ	Aroclor-1248		U	0.095	μg/L	0.5	0.09g	
				-	and work and a benefit of the second		0.5		
WDD3	РСВ	Aroclor-1254	0.095	-	0.095	μg/L		0.09 ^E	
WDD3	PCB	Aroclor-1260	0.095		0,095	μg/L	0.5	0.09 ⁸	
WDD3	Pesticide	4,4'-DDD	0.0377		0.0377	μg/L	NE	0.3	
WDD3	Pesticide	4,4'-DDE	0.0377		0.0377	μg/L	NE	0.2	
WDD3	Pesticide	4,4'-DDT	0.0377		0,0377	μg/L	NE	0.2	
WDD3	Pesticide	Aldrin	0.0189	-	0.0189	μg/L	NE	ND	
WDD3	Pesticide	alpha-BHC	0,0189	-	0.0189	μg/L	NE	0.01	6 10 100
WDD3	Pesticide	alpha-Chlordane		U	0.0189	μg/L	NE	NE 0.04	
WDD3	Pesticide	beta-BHC		U	0,0189	μg/L	NE		
WDD3	Pesticide	delta-BHC	0.0189	U	0.0189	μg/L	NE NE	0.4 0.001	
WDD3	Pesticide	Dieldrin				μg/L			
WDD3 WDD3	Pesticide	Endosulfan i	0.0189	U	0.0189	μg/L	NE NE	NE NE	
	Pesticide	Endosulfan II	0.0377	-	Chity work of the statistics of	μg/L		NE NE	
WDD3 WDD3	Pesticide Pesticide	Endosulfan sulfate		U U	0.0377 0.0377	μg/L	NE	ND ND	<u> </u>
WDD3	Pesticide Pesticide	Endrin	0.0377	U	0.0377	μg/L	NE	5 J	64 G 64 G 64 G
WDD3	Pesticide Pesticide	Endrin aldehyde Endrin ketone		U	0.0377	μg/L	NE NE	5	20 10 10 10 10
WDD3 WDD3	Pesticide (0.03//		0.0377	μg/L	0.2	0.5	
WDD3	Pesticide Pesticide	gamma-BHC (Lindane)		U	0.0189	μg/L	NE	NE	
WDD3	Pesticide	gamma-Chlordane Heptachlor	0.0189	_	0.0189	μg/L	0.4	0.4	
WDD3	Pesticide Pesticide	1		IJ	0.0189	μg/L	0.4	0.4	
WDD3	Pesticide	Heptachlor epoxide Methoxychlor	0.0189		0.1890	μg/L	40	35	
WDD3			0.1890		0.1890	μg/L,	3	0,06	
W DD3	respende	Toxaphene	0.4720	U	UA120	μg/L	3	0.06	

Location* PARAMETER* ANALYTE RESULT こ さ と こ さ と

*Surface Water Location

SWSD009 - Site Background

SWSD021 - Site Background

SW-DUP (SWSD011) - Field Duplicate of surface water and sediment location SWSD011

*PARAMETER

VOC - Volatile Organic Compound

PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

*UNITS

pCi/L - picocuries per liter

μg/L - micrograms per liter (ppb)

*QUALIFIER

Validated Qualifier; J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

*Detection or Reporting Limit

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Metal) - Method Detection Limit

Organic (VOC, PAH, PCB and Pesticides) - Reporting Limit (gray shading)



** Surface water at NFSS is not a drinking water source.

The above federal and state regulation concentrations are for comparative purposes only.

Federal Regulations:

National Primary Drinking Water Regulations 40CFR141.62&63

US Dept of Energy:

USDOE derived concentration guide (USDOE Order 5400.5) for drinking water.

New York State:

New York State Standards - Water Quality Criteria (class GA) per 6 NYCRR, Part 703.

NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228
- b. "Adjusted" gross alpha MCL of 15 pCi/, including Thorium isotopes, excluding radon and uranium
 - -National Primary Drinking Water Regulations; Radionuclide; Final Rule (Federal Register -December 7, 2000)

- c. Sum of Uranium Isotopes (27 pCi/L or 30 µg/L).
- d. National Secondary Drinking Water Regulations (40CFR143.3)
- c. Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.
- f. Not a sum total for Dimethyl Benzene (Xylene), applies to 1,2--Xylene, 1,3-Xylene and 1,4-Xylene individually.
- g. Sum of Aroclors (polychlorinated biphenyls)

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (+)	NX State-Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/17/ SWSD009	Radiological	Radium-226	1,000	pCi/g		0.216	0,266	NE	NE	5ª
SWSD009	Radiological	Radium-228	1,000	pCi/g pCi/g	├─	0.432	0.379	NE NE	NE NE	5*
31130007	Iradiological	Total Radium "	2,230	pCi/g	 	0.432	0.577	NL		5*
SWSD009	Radiological	Thorium-228	1,600	pCi/g	J	0.295	0.460	NE	NE	5
SWSD009	Radiological	Thorium-230	1,140	pCi/g		0.188	0.374	NE	NE.	5
SWSD009	Radiological	Thorium-232	0.970	pCi/g		0.157	0.344	NE	NE.	5
SWSD009	Radiological	Uranium-234	1.410	pCi/g		0.222	0.440	NE	NE.	90 ^b
SWSD009	Radiological	Uranium-235	0.194	pCt/g		0.184	0.184	NE	NE	90 ^b
SWSD009	Radiological	Uranium-238	1,220	pCi/g		0.090	0.402	NE	NE	90 ^ь
		Total Uranium ^b	2.824	nCi/g		r				90 _p
SWSD009	Metal	Aluminum	12800	mg/kg	<u> </u>	11		NE	NE NE	
SWSD009	Metal	Antimony	2.1	mg/kg	J	0.674		NE 12	NE NE	
SWSD009	Metal	Arsenic	4.4	mg/kg	_	0.661		13	16	
SWSD009 SWSD009	Metal Metal	Barium Beryllium	86,9 0.58	mg/kg mg/kg	-	0.22		350 7	10,000 2,700	
SWSD009	Metal	Boron	24.4	mg/kg	Н	1.76		NE	2,700 NE	
SWSD009	Metal	Cadmium	0.71	mg/kg	Н	0.0441		3	60	
SWSD009	Metal	Calcium	44200	mg/kg		66.1		NE.	NE.	
SWSD009	Metal	Chromium	35,1	mg/kg		0.441		NE	NE	
SWSD009	Metal	Cobalt	8.1	mg/kg		0.0441		NE	NE	
SWSD009	Metal	Copper	46.1	mg/kg		0.0881		50	10,000	
SWSD009	Metal	Iron	17900	mg/kg		22		NE	NE	
SWSD009	Metal	Lead	36.7	mg/kg		0.22		63	3,900	
SWSD009	Metal	Lithium	20.5	mg/kg		0.881		NE	NE	
SWSD009	Metal	Magnesium	9530	mg/kg		2.2		NE	NE	
SWSD009	Metal	Manganese	518	mg/kg		2,2		1,600	10,000	
SWSD009	Metal	Mercury	159	μg/kg		3.19		180°	5700°	
SWSD009	Metal	Nickel	20.6	mg/kg		0,22		30	10,000	
SWSD009	Metal	Potassium	2470	mg/kg	,,,	35.2		NE	NE	
SWSD009	Metal	Selenium	1.1	0_0_	U	1.1		4 2	6,800	
SWSD009 SWSD009	Metal Metal	Silver Sodium	1.1 433	mg/kg	J	0.217 35.2		NE NE	6,800 NE	
SWSD009	Metal	Thallium	0,15	mg/kg mg/kg	т	0.0881		NE.	NE NE	
SWSD009	Metal	Vanadium	22.9	mg/kg	-	0.881		NE.	NE	
SWSD009	Metal	Zinc	233	mg/kg		0.881		109	10,000	
SWSD009	VOC	I, I, I-Trichloroethane	1.98	μg/kg	υ	1,98		680	1,000,000	
SWSD009	VOC	1,1,2,2-Tetrachloroethane	1.98	μg/kg	U	1,98		NE	NE	
SWSD009	VOC	1,1,2-Trichloroethane	1.98	, , ,	U	1,98		NE	NE	
SWSD009	VOC	I,I-Dichloroethane	1.98	1.0 0	υ	1,98		270	480,000	
SWSD009 SWSD009	VOC VOC	1,1-Dichloroethylene 1,2-Dichloroethane	1.98 1.98		U U	1,98 1.98		330 20	1,000,000 60,000	
SWSD009	VOC	1,2-Dichloropropane	1.98		U	1.98	0.000	NE.	00,000 NE	
SWSD009	VOC	2-Butanone	4.65		j	9.89		120	1,000,000	
SWSD009	VOC	2-Hexanone	9.89		U	9,89	100000000000000000000000000000000000000	NE	NE	
SWSD009	VOC	4-Methyl-2-pentanone	9.89		U	9.89		NE	NE	
SWSD009	VOC	Acctone	39.8	μg/kg	_	9,89		50	1,000,000	
SWSD009	VOC	Benzene	1.98	,	U	1.98	16.00	60	89,000	
SWSD009 SWSD009	VOC VOC	Bromodichloromethane Bromoform	1.98 1.98	100	U U	1,98 1,98		NE NE	NE NE	
SWSD009	VOC	Bromomethane	1.98		U	1,98		NE NE	NE NE	
	VOC	Carbon disulfide	9.89		U	9.89		NE	NE	
WSD009	VOC	Carbon tetrachloride	1.98		U	1,98		760	44,000	88.88888
	VOC	Chlorobenzene	1.98		U	1,98	20000000	1,100	1,000,000	
	VOC	Chlorocthanc	1.98		U	1.98	100.00	NE	NE	88348188
	VOC	Chloroform	1.98		U	1,98		370	700,000	88653833
	VOC	Chloromethane cis-1,2-Dichloroethylene	1.98 1.98		U U	1,98	481431	NE 250	NE 1,000,000	
		cis-1,3-Dichloropropylene	1.98		U	1.98	200000000000000000000000000000000000000	NE	1,000,000 NE	200 (200 (200
		Ethylbenzene	1.98		U	1,98		1,000	780,000	
WSD009	VOC	Methylene chloride	9.89		U	9.89		50	1,000,000	
	VOC	Styrene	1.98		Ŭ ,	1.98		NE	NE	
		Tetrachloroethylene	1.98		U	1.98		1,300	300,000	
	VOC	Toluene	1.98		U	1.98		700	1,000,000	200 5 6 4 5 A 5
	VOC VOC	trans-1,2-Dichlorocthylene trans-1,3-Dichloropropylene	1.98 1.98		U	1.98		190 NE	1,000,000 NE	30 92 9 9 8
	VOC	Trichloroethylene	1.98	1	U	1,98		470	400,000	18:35:55
	VOC	Vinyl chloride	1.98	1 .7	U	1,98		20	27,000	
				μg/kg	_	1.98	CANAL PROPERTY.	260		

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		İ			ĺ	Detection or Reporting Limit*		NY State- Unrestricted Use**	peg	
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	1				QUALIFIER*	6	Radiological Uncertainty	n .	l St	DOE Cleanup Criteria**
	1					, ‡i	log tai	l st	fate	DOE Clear Criteria**
SEDIMENT		1			₹	Detection Limit*	dio	NY St. Use**	e J.	ite ite
LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	ō		25	· · · · ·		కర్
SWSD009	PAH	Accnaphthene	37.7	μg/kg	U	37.7		20,000	1,000,000	
SWSD009	PAH	Accnaphthylene	37.7	μg/kg	U	37.7		100,000	1,000,000	
SWSD009	PAH	Anthracene	37.7	μg/kg	ប	37.7		100,000	1,000,000	
SWSD009	PAH	Benzo(a)anthracene	77.9	μg/kg		3,77		1,000	11,000	
SWSD009	PAH	Benzo(a)pyrene	86	μg/kg		3,77		1,000	1,100	
SWSD009	PAH	Benzo(b)fluoranthene	150	μg/kg	J	3.77		1,000	11,000	
SWSD009	PAH	Benzo(ghi)perylene	43	μg/kg		3,77		100,000	1,000,000	
SWSD009	PAH	Benzo(k)fluoranthene	1.89	μg/kg	ij	1,89		800,000	110,000	
SWSD009	PAH	Chrysene	60.7	μg/kg		3,77		1,000	110,000	
SWSD009	PAH	Dibenzo(a,h)anthracene	3.77	μg/kg	Ų	3.77		330	1,100	
SWSD009	PAH	Fluoranthene	123	μg/kg		3,77		100,000	1,000,000	
SWSD009	PAH	Fluorene	37.7	μg/kg	U	37.7		30,000	1,000,000	
SWSD009	PAH	Indeno(1,2,3-cd)pyrene	3.77	μg/kg	Ü	3.77		500	11,000	
SWSD009	PAH	Naphthalene	37.7	μg/kg	U	37,7		12,000	1,000,000	
SWSD009	PAH	Phenanthrene	60.4	μg/kg		37.7		100,000	1,000,000	
SWSD009	PAH	Pyrene	115	μg/kg	\Box	3,77		100,000	1,000,000	
SWSD009	PCB	Arocler-1016	74.9	μg/kg	U	24.9		100	25,000	
SWSD009	PCB	Aroclor-1221	74.9	μg/kg	U	24.9		100	25,000	
SWSD009	PCB	Aroclor-1232	74.9	μg/kg	υ	24.9		100	25,000	
SWSD009	PCB	Aroclor-1242	54.7	μg/kg	J	24.9		100	25,000	
SWSD009	PCB	Areclor-1248	74.9	μg/kg	υ	24.9		100	25,000	
SWSD009	PCB	Aroclor-1254	51.8	μg/kg	J	24.9		100	25,000	
SWSD009	РСВ	Aroclor-1260	74.9	μg/kg	U	24.9		100	25,000	
SWSD009	Pesticide	4,4'-DDD	30	μg/kg	U	30		3.3	180,000	
SWSD009	Pesticide	4,4'-DDE	30	μg/kg	U	30		3.3	120,000	8948208
SWSD009	Pesticide	4,4'-DDT	30	μg/kg	Ŭ	30		3.3	94,000	24.000
SWSD009	Pesticide	Aldrin	15	μg/kg	U			5	1,400	
SWSD009	Pesticide	alpha-BHC	15	μg/kg	U	15		20	6,800	
SWSD009	Pesticide	alpha-Chlordane	15	μg/kg	U			94	47,000	20000400
SWSD009	Pesticide	beta-BHC	15	μg/kg	U	15		36	14,000	
SWSD009	Pesticide	delta-BHC	15	μg/kg	U	15		40	1,000,000	100000
SWSD009	Pesticide	Dieldrin	30	μg/kg	U	30		5	2,800	
SWSD009	Pesticide	Endosulfan l	15	r-6767	U	15		2,400 ^d	920,000"	
SWSD009	Pesticide	Endosulfan II	30	μg/kg	U	30		2,400 ^d	920,000	
SWSD009	Pesticide	Endosulfan sulfate	30	μg/kg	U	30		2,400 ^d	920,000 ^d	
SWSD009	Pesticide	Endrin	30	μg/kg	Ū	30		14	410,000	
SWSD009	Pesticide	Endrin aldehyde	30	μg/kg	U	30		NE	NE	
SWSD009	Pesticide	Endrin ketone	30	μg/kg	U	30		NE	NE	
SWSD009	Pesticide	gamma-BHC (Lindane)	15	μg/kg	U	1.5		100	23,000	
SWSD009	Pesticide	gamma-Chlordane	15	µg/kg	U	15		NE	NE	
SWSD009	Pesticide	Heptachlor	15	μg/kg	U	15		42	29,000	
SWSD009	Pesticide	Heptachlor epoxide	15	μg/kg	U	15		NE	NE	
SWSD009	Pesticide	Methoxychlor	150	μg/kg	U	150		NE	NE	100000000000000000000000000000000000000
SWSD009	Pesticide	Toxaphene	749		U	749		NE	NE	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use***	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/11										
SWSD021	Radiological	Radium-226	1.120	pCi/g		0.188	0,246	NE	NE	
SWSD021	Radiological	Radium-228	1.450	pCi/g		0.360	0.377	NE	NE	5
		Total Radium"	2.570	pCi/g						5
SWSD021	Radiological	Thorium-228	1.380	pCi/g		0.240	0.416	NE	NE	
SWSD021	Radiological	Thorium-230	0.963	pCi/g	<u> </u>	0.183	0,340	NE NE	NE	5
SWSD021	Radiological	Thorium-232	1.290	pCi/g	⊢	0.152	0.390	NE NE	NE.	90 ^b
SWSD021	Radiological	Uranium-234	1.170	pCt/g	⊢	0.164	0.353	NE NE	NE NE	90 ^b
SWSD021	Radiological	Uranium-235	0.177	pCi/g	┝	0.168	0.159 0.393	NE NE	NE NE	90 ^b
SWSD021	Radiological	Uranium-238 Total Uranium b	1.460	pCi/g	┝╌	0.164	0.393	NE	NE.	90 ^b
SWSD021	Metal	Aluminum	2.807 25100	pCi/g mg/kg	\vdash	15.10		NE	NE	90
SWSD021	Metal	Antimony	0.46	mg/kg	U	0.46		NE	NE NE	
SWSD021	Metal	Arsenic	4.30	mg/kg	ì	0.45		13	16	
SWSD021	Metal	Barium	165.00	mg/kg	۳	0.15		350	10,000	
SWSD021	Metal	Beryllium	1.20	mg/kg	J	0,03		7	2,700	
SWSD021	Metal	Boron	21,10	mg/kg	j	1.20		NE	NE	
SWSD021	Metal	Cadmium	0.27	mg/kg	J	0.03		3	60	
SWSD021	Metal	Calcium	51900	mg/kg		90,30		NE	NE	
SWSD021	Metal	Chromium	38.10	mg/kg	J	0.30		NE	NE	
SWSD021	Mctal	Cobalt	12.40	mg/kg	J	0.03		NE	NE.	
SWSD021	Metal	Copper	30,60	mg/kg	J	0.06		50	10,000	
SWSD021	Metal	Iron	36000	mg/kg		30.10		NE	NE	
SWSD021	Metal	Lead	10.60	mg/kg	J	0.15		63	3,900	
SWSD021	Metal	Lithium	38.10	mg/kg	Щ	0,60		NE	NE	
SWSD021	Metal	Magnesium	13400	mg/kg		15.10		NE	NE	
SWSD021	Metal	Manganese	649.00	mg/kg		3.01		1,600	10,000	
SWSD021	Metal	Mercury	24.20	μg/kg		2,19		180°	5700°	
SWSD021	Metal	Nickel	30.90	mg/kg	J	0.15		30	10,000	
SWSD021	Metal	Potassium	5700	mg/kg		241.0		NE	NE COM	
SWSD021	Metal	Selenium	0.75	mg/kg	, -	0.75		4 2	6,800	
SWSD021	Metal Metal	Silver Sodium	0.69 308.00	mg/kg mg/kg	J Y	0,15 24,10		NE	6,800 NE	
SWSD021 SWSD021	Metal	Thalliam	0.26	mg/kg	J T	0.06		NE NE	NE	
SWSD021	Metal	Vanadium	56,90	mg/kg	_	6.02		NE.	NE.	
SWSD021	Metal	Zinc	78.10	mg/kg	\vdash	0.60		109	10,000	
SWSD021	VOC	1, 1, 1-Trich loroethane	1.51	μg/kg	U	1,51		680	1,000,000	
WSD021	VOC	1,1,2,2-Tetrachloroethane	1.51	μg/kg	U	1,51		NE	NE	
SWSD021	VOC	1,1,2-Trichlerocthane	1.51	μg/kg	U	1,51		NE	NE	
WSD021	VOC	1,1-Dichloroethane	1.51	μg/kg	U	1.51		270	480,000	
SWSD021	VOC	1,1-Dichloroethylene	1.51	μg/kg	υ	1.51		330	1,000,000	
SWSD021		1,2-Dichloroethane 1,2-Dichloropropane	1.51		U U	1.51 1.51		20 NE	60,000 NE	
WSD021		2-Butanone	7.53		U	7.53		120	1,000,000	
WSD021	VOC	2-Hexanone	7.53		Ü	7.53		NE	NE	
SWSD021	VOC	4-Methyl-2-pentanone	7.53	2 2	U	7.53		NE	NE	
WSD021	VOC	Acetone	7.53		U	7,53		50	1,000,000	
WSD021	VOC	Benzene	1.51		U	1.51		60	89,000	
WSD021	VOC	Bromodichloromethane	1.51	μg/kg	U	1.51	110000	NE	NE	
WSD021	VOC	Bromoform	1.51		U	1.51		NE	NE'	
SWSD021 SWSD021	VOC	Bromomethane Carbon disulfide	1.51 7.53	µg/kg µg/kg	U	1.51 7.53		NE NE	NE NE	
WSD021	VOC	Carbon distribute	1.51		υ	1,51		760	44,000	
WSD021	VOC	Chlorobenzene	1.51		U	1.51		1,100	1,000,000	district
WSD021	VOC	Chloroethane	1.51		Ū	1,51		NE	NE	
WSD021	VOC	Chloroform	1.51		U	1,51		370	700,000	
WSD021	VOC	Chloromethane	1.51	μg/kg	U	1,51	18 14 18	NE	NE	
WSD021	VOC	cis-1,2-Dichloroethylene	1.51		U	1.51		250	1,000,000	
WSD021	VOC	cis-1,3-Dichloropropylene	1.51		U	1,51		NE LOOO	700 000	
WSD021 WSD021		Ethylbenzene Methylene chloride	1.51 7.53		U U	1,51 7,53		1,000	780,000 1,000,000	
WSD021	VOC	Meinyiene caloride Styrene	1.51		U	1,53		NE	1,000,000 NE	
WSD021		Tetrachloroethylene	1.51		Ŭ	1.51		1,300	300,000	
WSD021		Toluene	1.51		Ŭ	1.51		700	1,000,000	
WSD021		frans-1,2-Dichloroethylene	1.51		U	1,51	2.00	190	1,000,000	
WSD021		trans-1,3-Dichloropropylene	1.51		U	1,51		NE	NE	
WSD021		Trichloroethylene	1.51		U	1,51		470	400,000 27,000	
WSD021	VOC	Vinyl chloride	1.51	μg/kg	υľ	1.51		20		

SEDIMEN'I'					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	١z	L Pe	Ray	Z Š	Z X	25
SWSD021	PAII	Acenaphthene	25.60	μg/kg	Ü	25.60		20,000	1,000,000	
SWSD021	PAH	Accnaphthylene	25.60	μg/kg	U	25.60		100,000	1,000,000	
SWSD021	PAH	Anthracene	25.60	μg/kg	U	25.60		100,000	1,000,000	
SWSD021	PAH	Benzo(a)anthracene	18.20	μg/kg	J	2.56		1,000	11,000	
SWSD021	PAH	Вепzо(а)ругепе	19.00	μg/kg	J	2.56		1,000	1,100	
SWSD021	PAH	Benzo(b)fluoranthene	40.70	μg/kg	J	2.56		1,000	11,000	
SWSD021	PAH	Benzo(ghi)perylene	2.56	µg∕kg	U	2.56		100,000	1,000,000	
SWSD021	PAH	Benzo(k)fluoranthene	1.28	μg/kg	U	1,28		800,000	110,000	
SWSD021	PAH	Chrysene	16.50	μg/kg	J	2,56		1,000	110,000	
SWSD021	PAH	Dibenzo(a,h)anthracene	2.56	μg/kg	U	2,56		330	1,100	
SWSD021	PAH	Fluoranthenc	26.50	µg/kg	J	2,56		100,000	1,000,000	
SWSD021	PAH	Fluorene	25.60	µg/kg	U .	25,60		30,000	1,000,000	
SWSD021	PAH	Indeno(1,2,3-cd)pyrene	2.56	μg/kg	U	2,56		500	11,000	
SWSD021	PAH	Naphthalene	25.60	μg/kg	U	25,60		12,000	1,000,000	
SWSD021	PAH	Phenanthrene	12.40	μg/kg	J	25,60		100,000	1,000,000	
SWSD021	PAH	Pyrene	23,50	μg/kg	J	2.56		100,000	1,000,000	
SWSD021	PCB	Arocler-1016	5.09	μg/kg	U	5,09		100	25,000	
SWSD021	PCB	Aroclor-1221	5.09	μg/kg	U .	5.09		100	25,000	
SWSD021	PCB	Aroclor-1232	5.09	μg/kg	U	5.09		100	25,000	
SWSD021	PCB	Aroclor-1242	4.00	μg/kg	J	5,09		100	25,000	
SWSD021	PCB	Aroclor-1248	5.09	μg/kg	U	5,09		100	25,000	
SWSD021	PCB	Aroclor-1254	2,80	μg/kg	J	5,09		100	25,000	0.00
SWSD021	PCB	Aroclor-1260	5.09	μg/kg	U	5,09		100	25,000	4.00
SWSD021	Pesticide	4,4'-DDD	2,04	μg/kg	υ	2,04		3.3	180,000	
SWSD021	Pesticide	4,4'-DDE	2,04	μg/kg	U	2,04		3.3	120,000	
SWSD021	Pesticide	4,4'-DDT	2,04	μg/kg	U	2,04		3.3	94,000	
SWSD021	Pesticide	Aldrin	1,02	μg/kg	U	1,02		5	1,400	
SWSD021	Pesticide	alpha-BHC	1,02	μg/kg	U	1,02		20	6,800	
SWSD021	Pesticide	alpha-Chlordane	1,02	μg/kg	U	1,02		94	47,000	
SWSD021	Pesticide	beta-BHC	1,02	μg/kg	U	1,02		36	14,000	
SWSD021	Pesticide	delta-BHC	1,02	μg/kg	IJ	1,02		40	1,000,000	
SWSD021	Pesticide	Dieldrin	2,04	μg/kg	U	2,04		. 5	2,800	
SWSD021	Pesticide	Endosulfan I	1,02	μg/kg	υ	1.02		2,400 ^d	920,000 ^d	
SWSD021	Pesticide	Endosulfan II	2.04	μg/kg	U	2,04		2,400 ^d	920,000 ^d	
SWSD021	Pesticide	Endosulfan sulfate	2.04	μg/kg	Ŭ	2.04		2,400 ^d	920,000 ^d	
SWSD021	Pesticide	Endrin	2.04	μg/kg	Ü	2.04		14	410,000	
SWSD021		Endrin aldehyde	2.04	μg/kg	ŭ	2.04		NE	NE NE	
SWSD021	Pesticide	Endrin ketone	2.04	μg/kg	U	2.04	e a company in the co	NE	NE	
SWSD021	Pesticide	gamma-BHC (Lindane)	1,02	μg/kg	Ŭ	1.02		100	23,000	
SWSD021	Pesticide	gamma-Chlordane	1.02	μg/kg	U	1.02		NE	25,000 NE	
SWSD021	Pesticide	Heptachlor	1.02	μg/kg	Ŭ	1.02		42	29,000	
SWSD021	Pesticide	Heptachlor epoxide	1,02	μg/kg	Ŭ	1.02		NE	NE	
SWSD021		Methoxychlor	10,20		Ŭ	10.20		NE	NE	
SWSD021	Pesticide	Toxanhene	51.00	, ,	Ŭ	51.00	100 200 000	NE.	NE	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)		NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/18/		[7.10.61.10					<u> </u>		L 2 P	HV
SWSD010	Radiological	Radium-226	1.330	pCi/g		0.225	0.307	NE	ΝE	
SWSD010	Radiological	Radium-228	0.236	pCi/g	U	0.497	0,299	NE	NE	5°
		Total Radium ^a	1.330	pCi/g	<u>_</u>				Γ	5ª
SWSD010 SWSD010	Radiological	Thorium-228 Thorium-230	1.530 1.230	pCi/g pCi/g	J_	0.365 0.184	0,461	NE NE	NE NE	5 5
SWSD010	Radiological Radiological	Thorium-232	1.230	pCi/g pCi/g	├─	0.184	0,383	NE NE	NE NE	5
SWSD010	Radiological	Uranium-234	1.330	pCi/g		0.232	0.450	NE	NE	90 ^h
SWSD010	Radiological	Uranium-235	0.182	pCi/g		0.124	0.182	NE	NE	90 ^h
SWSD010	Radiological	Uranium-238	1.670	pCi/g		0.215	0.501	NE	NE	90 ^h
-		Total Uranium ^b	3.182	pCi/g						90 ^h
SWSD010	Metal	Aluminum	19900	mg/kg	J	2,24		NE	NE	
SWSD010	Metal	Antimony	0.74	mg/kg	ì	0.694		NE	NE.	
SWSD010	Metal	Arsenic	7	mg/kg	J T	0.673		13	16	
SWSD010 SWSD010	Metal Metal	Barium Beryllium	148 0.97	mg/kg mg/kg	Ţ	1,12 0,0448		350	10,000 2,700	
SWSD010	Metal	Boron	36.4	mg/kg	1	1.79		, NE	2,700 NE	
SWSD010	Metal	Cadmium	0.78	mg/kg	J	0.0448		3	60	
SWSD010	Metal	Calcium	59300	mg/kg	J	67.3		NE	NE	
SWSD010	Metal	Chromium	49.7	mg/kg	J	2.24		NE	NE	
SWSD010	Metai	Cobalt	11.5	mg/kg	J	0.0448		NE	NE	
SWSD010	Metal	Соррсг	64.9	mg/kg	J	0.0897		50	10,000	
SWSD010	Metal	Iron	34500	mg/kg	J.	22.4		NE (2	NE 2 000	
SWSD010	Metal	Lead	67.6	mg/kg	,	1.12		63 NE	3,900	
SWSD010 SWSD010	Metal Metal	Lithium Magnesium	32.4 13800	mg/kg mg/kg	1	0,897 2.24		NE NE	NE NE	
SWSD010	Metal	Manganese	798	mg/kg	1	11.2		1,600	10,000	
SWSD010	Metal	Mercury	305	μg/kg	J	8.45		180°	5700°	
SWSD010	Metal	Nickel	28.4	mg/kg	J	0,224		30	10,000	
SWSD010	Metal	Potassium	5440	mg/kg	J	35.9		NE	NE	
SWSD010	Metal	Selenium	1.12	mg/kg_	Ü	1.12		4	6,800	
SWSD010	Metal	Silver	0.63	mg/kg	J	0,224		2	6,800	
SWSD010	Metal	Sodium	698	mg/kg	J	35.9	100000000000	NE	NE.	
SWSD010 SWSD010	Metal	Thallium Vanadium	0,25 36,1	mg/kg	j T	0.0897 0.897		NE NE	NE	
SWSD010	Metal Metal	Zinc	364	mg/kg mg/kg	,	0.897	990	109	10,000	
SWSD010	VOC	1,1,1-Trichloroethanc	2.27		U	2.27		680	1,000,000	
SWSD010		1,1,2,2-Tetrachloroethanc	2.27	μg/kg	Ų	2,27		NE	NE	
SWSD010		1,1,2-Trichleroethane	2.27	μg/kg	U	2.27		NE	NE	
SWSD010		1,1-Dichloroethaue 1,1-Dichloroethylene	2.27	μg/kg	U	2.27		270 330	480,000	
SWSD010 SWSD010	VOC VOC	1,1-Dichloroethylene	2.27 2.27	μg/kg μg/kg	Ŭ	2.27 2.27		20	1,000,000 60,000	
SWSD010		1,2-Dichloropropane	2.27	5	U	2.27		NE.	NE	
SWSD010		2-Butanone	12.00	μg/kg		11,40		120	1,000,000	
WSD010		2-Hexanone	11.40	μg/kg	Ü	11,40		NE	NE.	
SWSD010		4-Methyl-2-pentanone	11.40	μg/kg μg/kg	U	11.40		NE 50	NE 1,000,000	
SWSD010 SWSD010	VOC VOC	Acetone Benzene	38.20 2.27		U	11,40 2,27		60	89,000	
		Bromodichleromethanc	2.27		Ų	2.27		NE	NE	
		Bromoform	2.27	100	U	2.27		NE	NE	
		Bromomethane	2.27	μg/kg	U	2,27		NE	NE	
		Carbon disulfide Carbon tetrachloride	11.40 2.27	10.0	U U	11,40 2,27		NE 760	NE 44,000	
		Chlorobenzene	2.27	μg/kg μg/kg	U	2,27		1,100	1,000,000	
		Chloroethane	2,27	- CJ - CJ	U	2,27		NE NE	1,000,000 NE	
SWSD010	VOC	Chloroform	2,27	µg/kg	U	2.27		370	700,000	
		Chloromethane	2.27	μg/kg	U	2,27	4949	NE	NE	
		cis-1,2-Dichloroethylene cis-1,3-Dichloropropylene	2,27 2,27		U U	2.27 2.27		250 NE	1,000,000 NE	
		Ethylbenzene	2.27		U	2,27	44.00	1,000	780,000	30 (31) (30)
WSD010		Methylene chloride	11.40	1.67 13	Ŭ	11,40		50	1,000,000	
WSD010	VOC	Styrene	2,27	μg/kg	U	2.27		NE	NE	
		Tetrachloroethylene	2,27		U	2.27		1,300	300,000	
		Toluene	2.27		U U	2,27		700 190	1,000,000	
		trans-1,2-Dichloroethylene trans-1,3-Dichloropropylene	2.27 2.27		U	2,27 2,27		190 NE	1,000,000 NE	
		Trichloroethylene	2.27		U	2,27		470	400,000	
		Vinyl chloride	2.27		Ū	2,27		20	27,000	
		Xylenes (total)	2,27		U	2,27		260	1,000,000	

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SEDIMENT					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	Ö	ËĞ	Ra Un	N.Y. U.S.	Z. Usi	ΔÖ
SWSD010	PAH	Acenaphthene	37.90	μg/kg	U	37,90		20,000	1,000,000	
SWSD010	РАН	Accnaphthylene	37.90	μg/kg	U	37,90		100,000	1,000,000	
SWSD010	PAH	Anthracene	37.90	μg/kg	U	37,90		100,000	1,000,000	
SWSD010	PAH	Benzo(a)anthracene	88,60	μg/kg		3.79		1,000	11,000	
SWSD010	PAH	Benzo(a)pyrene	88.50	μg/kg		3,79		1,000	1,100	
SWSD010	PAH	Benzo(b)fluoranthene	176.00	μg/kg		3,79		1,000	11,000	
SWSD010	PAH	Benzo(ghi)perylene	55,10	μg/kg		3,79		100,000	1,000,000	
SWSD010	PAH	Benzo(k)fluoranthene	1.90	μg/kg	U	1.90		800,000	110,000	
SWSD010	PAU	Chrysene	76.00	μg/kg		3.79		1,000	110,000	
SWSD010	PAH	Dibenzo(a,h)anthracene	3.79	μg/kg	IJ	3.79		330	1,100	
SWSD010	PAH	Fluoranthene	124,00	μg/kg	П	3.79		100,000	1,000,000	
SWSD010	PAII	Fluorene	37.90	μg/kg	U	37,90		30,000	1,000,000	
SWSD010	PAH	Indeno(1,2,3-cd)pyrene	3.79	μg/kg	ŭ	3,79		500	11,000	
SWSD010	PAH	Naphthalene	37.90	μg/kg	Ū	37.90		12,000	1,000,000	
SWSD010	РАН	Phenanthrene	56.70	μg/kg	J	37.90		100,000	1,000,000	
SWSD010	PAH	Pyrene	136.00	μg/kg		3,79		100,000	1,000,000	
SWSD010	PCB	Aroclor-1016	75,3	μg/kg	U	25.1		100	25,000	
SWSD010	PCB	Aroclor-1221	75.3	µg/kg	U	25.1		100	25,000	
SWSD010	РСВ	Aroclor-1232	75.3	μg/kg	U	25,1		100	25,000	
SWSD010	PCB	Aroclor-1242	75,3	μg/kg	U	25,1		100	25,000	
SWSD010	РСВ	Aroclor-1248	75.3	μg/kg	Ū	25.1		100	25,000	
SWSD010	РСВ	Areclor-1254	51.3	μg/kg	J	25,1		100	25,000	
SWSD010	РСВ	Aroclor-1260	75.3	μg/kg	U	25.1		100	25,000	
SWSD010	Pesticide	4,4'-DDD	30.2		U	30.2		3.3	180,000	
SWSD010	Pesticide	4,4'-DDE	30.2	μg/kg	U	30.2		3,3	120,000	
SWSD010	l'esticide	4,4'-DDT	30,2	μg/kg	U	30.2		3.3	94,000	
SWSD010	Pesticide	Aldrin	15.1	μg/kg	U	15,1		5	1,400	
SWSD010	Pesticide	alpha-BHC	15.1	μg/kg	U	[5.1		20	6,800	
SWSD010	Pesticide	alpha-Chlordane	15,1	μg/kg	IJ	15.1		94	47,000	
SWSD010	Pesticide	beta-BHC	15,1		U	15.1		36	14,000	
SWSD010	Pesticide	delta-BHC	15.1	μg/kg	U	15.1		40	1,000,000	
SWSD010	Pesticide	Dieldrin	30.2		U	30.2		5	2,800	
SWSD010	Pesticide	Endosulfan I	`15.1		U	15.1		2,400 ^d	920,000 ^d	
SWSD010	Pesticide	Endosulfan II	30.2	μg/kg	บ	30.2		2,400 ^d	920,000 ^d	
SWSD010	Pesticide	Endosulfan sulfate	30.2	μg/kg	U	30.2		2,400 ^d	920,000 ^d	
SWSD010	Pesticide	Endrin	30.2	μg/kg	Ŭ	30.2		14	410,000	
SWSD010	Pesticide	Endrin aldehyde	30.2	,	Ū	30.2		NE	NE	
SWSD010	Pesticide	Endrin ketone	30.2		U	30,2		NE	NE	
SWSD010	Pesticide	gamma-BHC (Lindane)	. 15.1		U	15.1		100	23,000	
SWSD010	Pesticide	gamma-Chlordane	15.1	μg/kg	U	15.1		NE	NE	
SWSD010	Pesticide	Heptachlor	15.1	μg/kg	Ü	15.1		42	29,000	
SWSD010	Pesticide	Heptachlor epoxide	15.1	μg/kg	U	15.1		NE	NE	
SWSD010	Pesticide	Methoxychlor	151.0	μg/kg	Ü	151,0		NE	NE	
SWSD010	Pesticide -	Toxaphene	756	μg/kg	U	756		. NE	NE	

SEDIMENT LOCATION* Sample Date: 6/16.	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD011	Radiological	Radium-226	1.140	pCi/g	PROPERTY.	0.312	0.341	NE	NE	5ª
SWSD011	Radiological	Radium-228	1,640	pCi/g	Г	0.536	0.482	NE	NE	5ª
		Total Radium ^a	2,780	pCi/g						5ª
SWSD011	Radiological	Thorium-228	1,610	pCi/g	L	0,273	0.447	NE	NE	5
SWSD011 SWSD011	Radiological Radiological	Thorium-230 Thorium-232	1.780	pCi/g	⊢	0,220 0.149	0.458	NE NE	NE NE	5 5
SWSD011	Radiological	Uranium-234	1,160	pCi/g pCi/g	\vdash	0.149	0.340	NE NE	NE	90 ^b
SWSD011	Radiological	Uranium-235	0.144	pCi/g	\vdash	0.079	0.144	NE NE	NE NE	90 ^h
SWSD011	Radiological	Uranium-238	1,400	pCi/g	┢	0,079	0,403	NE	NE	90 ^h
		Total Uranium ^b	2.704	pCi/g	Г		L		-	90 ^h
SWSD011	Metal	Aluminum	16500	mg/kg		13.2		NE	NE	
SWSD011	Metal	Antimony	2,1	mg/kg	J	0.805		NE	NE	
SWSD011	Metal	Arsenic	4.3	mg/kg	Щ	0,789		13	16	
SWSD011	Metal	Barium	109	mg/kg	Щ.	0.263		350	10,000	
SWSD011	Metal	Beryllium	0.68	mg/kg_	┝	0.0526		7	2,700	
SWSD011 SWSD011	Metal Metal	Boron Cadmium	21.1 0.48	mg/kg mg/kg	├	2.11 0.0526		NE 3	NE 60	
SWSD011	Metal	Calcium	36500	mg/kg	۴	78.9		NE NE	NE.	
SWSD011	Metal	Chromium	39.4	mg/kg	┢	0,526		NE	NE.	
SWSD011	Metal	Cobalt	9.6	mg/kg	П	0.0526		NE	NE	
SWSD011	Metal	Copper	38.5	mg/kg		0.105		50	10,000	
SWSD011	Metal	Iron	22200	mg/kg	П	26,3		NE	NE	
SWSD011	Metal	Lead	27.4	mg/kg	Щ	0.263		63	3,900	
SWSD011	Metal	Lithium	24.5	mg/kg_		1,05		NE	NE	
SWSD011	Metal	Magnesium	9130	mg/kg	\vdash	2.63		NE	NE 10.000	
SWSD011 SWSD011	Metai	Manganese	792	mg/kg	-	2.63		1,600	10,000 5700°	
SWSD011	Metal Metal	Mercury Nickel	128 23.3	µg/kg mg/kg	-	3.58 0,263		180°	10,000	
SWSD011	Metal	Potassium	3420	mg/kg	_	42.1		NE	70,000 NE	
SWSD011	Metal	Sclenium	1.32	mg/kg	U	1.32		4	6,800	
SWSD011	Metal	Silver	1.2	mg/kg	J	0.26		2	6,800	
SWSD011	Metal	Sodium	455	mg/kg		42.1		NE	NE	
SWSD011	Metal	Thallium	0.18	mg/kg	J	0.105		. NE	NE	
SWSD011	Metal	Vanadium	28.4	mg/kg		1.05		NE	NE	
SWSD011 SWSD011	Metal VOC	Zinc 1,1,1-Trichloroethane	202 2,69	mg/kg ug/kg	U	1,05 2.69		109 680	000,000	
SWSD011	VOC	1,1,2,2-Tetrachioroethane	2,69	μg/kg μg/kg	U	2.69		NE	1,000,000 NE	
SWSD011	VOC	1,1,2-Trichloroethane	2.69	μg/kg	Ŭ	2,69		NE	NE	
SWSD011	VOC	1,1-Dichlorocthane	2,69	μg/kg	U	2,69		270	480,000	
SWSD011	VOC	1,1-Dichlorocthylene	2.69	μg/kg		2,69		330	1,000,000	
SWSD011	VOC VOC	1,2-Dichlorocthane 1,2-Dichloropropane	2,69 2,69		U U	2.69 2.69		20 NE	60,000 NE	
SWSD011	VOC	2-Butanone	12,2	μg/kg μg/kg	J	13.4		120	1,000,000	
SWSD011	VOC	2-Hexanone	13.4		U	13.4		NE	NE	
SWSD011	VOC	4-Methyl-2-pentanone	13.4	2.0	U	13.4		NE	NE	
SWSD011	VOC	Acetone	44.4	μg/kg		13.4		50	1,000,000	
SWSD011 SWSD011	VOC VOC	Benzene Bromodichloromethane	2.69	00	U U	2,69 2,69		60 NE	89,000 NE	
SWSD011	VOC	Bromoform	2.69	100	U	2,69		NE	NE	
SWSD011	VOC	Bromomethane	2.69		U	2,69		NE	NE	
SWSD011	VOC	Carbon disulfide	13.4		U	13.4		NE	NE	
SWSD011 SWSD011	VOC VOC	Carbon tetrachloride	2.69	10	U U	2,69		760	44,000 1,000,000	
SWSD011	VOC	Chlorobenzene Chloroethane	2.69		U	2,69 2,69		1,100 NE	1,000,000 NE	
SWSD011	VOC	Chloroform	2,69		Ū	2,69		370	700,000	
SWSD011	VOC	Chloromethane	2.69	μg/kg	Ū	2,69	0.00	NE	NE	
SWSD011	VOC	cis-1,2-Dichlorocthylene	2.69	- 0 0	U	2.69		250	1,000,000	
SWSD011	VOC	cis-1,3-Dichloropropylene	2.69	- 0 .0	U	2.69	6100.00	NE 1 000	790 000	
SWSD011 SWSD011	VOC VOC	Ethylbenzene Methylene chloride	2.69	- 0 0 -	U U	2,69 13,4		1,000	780,000 1,000,000	
SWSD011	VOC	Styrene	2.69	-0-0-	Ü	2.69		NE	1,000,000 NE	
SWSD011	VOC	Tetrachlorocthylene	2.69	- 0 0	Ü	2,69		1,300	300,000	
SWSD011	VOC	Toluene	2.69	μg/kg	U	2.69		700	1,000,000	
SWSD011	VOC	trans-1,2-Dichloroethylene	2.69		U	2.69		190	1,000,000	
SWSD011 SWSD011	VOC VOC	trans-1,3-Dichloropropylene Trichloroethylene	2.69	, , , , , , , ,	U U	2,69 2,69		NE 470	NE 400,000	
SWSD011	VOC	Vinyl chloride	2.69	100	U	2,69		20	27,000	
SWSD011		Xylenes (total)	2.69	, U U	U	2,69		260	1,000,000	
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SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use***	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD011	PAH	Accnaphthene	44.9	ng/kg	U	44.9	THE RESIDENCE OF THE PARTY OF THE PARTY.	20,000	1,000,000	ΩU
SWSD011	PAH	Acenaphthylene	44.9	μg/kg μg/kg	U	44.9		100,000	1,000,000	
SWSD011	PAH	Anthracene	44.9	μ <u>μ/kg</u> μg/kg	U	44.9		100,000	1,000,000	
SWSD011	PAH	Benzo(a)anthracene	34.1	μg/kg μg/kg	1	4.49		1,000	11,000	
SWSD011	PAH	Benzo(a)pyrene	38.1	μg/kg μg/kg	τ	4.49		1,000	1,100	
SWSD011	PAH	Benzo(b)fluoranthene	4,49	μg/kg μg/kg	U	4.49		1,000	11,000	
SWSD011	PAH	Benzo(ghi)perylene	4.49	µg/кд µg/kg	Ü	4.49		100,000	1,000,000	
SWSD011	PAH	Benzo(k)fluoranthene	2.24	μg/kg μg/kg	U	4,49 2.24		800,000	110,000	
SWSD011	PAH	Chrysene	28.9	μg/kg μg/kg	Ţ.	4.49		1,000	110,000	
SWSD011	PAH	Dibenzo(a,h)anthracene	4,49	1	Ω 1	4,49		330	1,100	
SWSD011	PAH	Fluoranthene	59.9	μg/kg	T	4.49 4.49		100,000	1,000,000	
SWSD011	PAH	Fluorene	39.9 44.9	μg/kg	J U	44.9		,		
SWSD011	PAH			μg/kg	U	4.49		30,000	1,000,000	
SWSD011	PAH	Indeno(1,2,3-cd)pyrene	4.49 44.9	μg/kg	U	44.9		500 12.000	11,000	
		Naphthalene		μg/kg	Ų	- Surfibed overfront No.			1,000,000	
SWSD011	PAH	Phenanthrene	27.4	μg/kg		44.9		100,000	1,000,000	
SWSD011	PAH	Pyrene	57.6	μg/kg	J	4.49		100,000	1,000,000	
SWSD011	PCB	Aroclor-1016	89,6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1221	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1232	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1242	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1248	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1254	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	PCB	Aroclor-1260	89.6	μg/kg	U	29.8		100	25,000	
SWSD011	Pesticide	4,4'-DDD	71.3	μg/kg	U	71.3		3,3	180,000	
SWSD011	Pesticide	4,4'-DDE	71.3	μg/kg	U	71.3	1010100	3.3	120,000	
SWSD011	Pesticide	4,4'-DDT	71,3	μg/kg	U	71,3		3.3	94,000	
SWSD011	Pesticide	Aldrin	35,6	μg/kg	U	35,6		5	1,400	
SWSD011	Pesticide	aipha-BHC	35.6	1.00	U	35.6		20	6,800	200
SWSD011	Pesticide	alpha-Chlordane	35.6	μg/kg	U	35,6		94	47,000	
SWSD011	Pesticide	beta-BHC	35.6	μg/kg	U	35,6		36	14,000	
SWSD011	Pesticide	delta-BHC	35.6	μg/kg	U	35.6	300.060.00	40	1,000,000	
SWSD011	Pesticide	Dieldrin	71.3	μg/kg	U	71.3		5	2,800	
SWSD011	Pesticide	Endosulfan I	35.6	μg/kg	U	35,6		2,400 ^d	920,000 ^d	
SWSD011	Pesticide	Endosulfan II	71.3	μg/kg	U	71.3		2,400 ^d	920,000 ^d	
SWSD011	Pesticide	Endosulfan sulfate	71.3	μg/kg	U	71,3		2,400 ^d	920,000 ^d	
SWSD011	Pesticide	Endrin	71.3	μg/kg	U	71.3		14	410,000	
SWSD011	Pesticide	Endrin aldehyde	71.3	, , ,	υ	71.3		NE	NE	
SWSD011	Pesticide	Endrin ketone	71.3		U	71.3		NE	NE 22.000	
SWSD011	Pesticide	gamma-BHC (Lindane)	35.6	μg/kg	U U	35.6		100	23,000	
SWSD011 SWSD011	Pesticide Pesticide	gamma-Chlordane Heptachlor	35.6 35.6	(-00	U I	35.6 35.6		NE 42	NE 29,000	
SWSD011	Pesticide	Heptachlor epoxide	35.6	μg/kg μg/kg	U	35.6 35.6	1620201650	NE	29,000 NE	
SWSD011	Pesticide	Methoxychlor	356		U	356		NE NE	NE NE	18 (18 (18 (18 (18 (18 (18 (18 (18 (18 (
SWSD011	Pesticide	Toxaphene	1780	, , , ,	Ŭ	1780	versenter er et e	NE	NE	pasi0450-ve8/

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)		NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/16/.	1	I					Shub is		I	
	Radiological Radiological	Radium-226	0.949	pCi/g	-	0.159	·	NE NE	NE NE	5
SED-DUT(SWSDIII)	Radiological	Radium-228 Total Radium ^a	0,918 1,867	pCi/g pCi/g	-	0.405	0.333	NE	IVE.	5
SED-DUP(swsD011)	Radiological	Thorium-228	1,360	pCi/g		0.264	0.407	NE	NE	
SED-DUP(swsd011)	Radiological	Thorium-230	1,340	pCi/g		0,173	0.388	NE	NE	4
SED-DUP(swsD011)	Radiological	Thorium-232	1,190	pCi/g	<u> </u>	0.195	0,369	NE	NE	
SED-DUP(swsb011)	Radiological	Uranium-234	1,110	pCi/g	,,	0.148		NE NE	NE NE	90 ¹
SED-DUP(swsd011) SED-DUP(swsd011)	Radiological Radiological	Uranium-235 Uranium-238	0,058	pCi/g pCi/g	U	0.079 0.124	0.082	NE NE	NE NE	90 90
SED-DOI (SWSD011)	Radiological	Total Uranium b	2,110	pCi/g	_	0.124	0,507	INE	[NE	90
SED-DUP(swsp011)	Metal	Aluminum	18800	mg/kg		13,4		NE	NE	
SED-DUP(swsd011)	Metal	Antimony	1.4	mg/kg	J	0.837		NE	NE	
	Metal	Arsenic	4.4	mg/kg		0.804		13	16	
	Metal	Barium	130	mg/kg		0,268		350	10,000	
SED-DUP(swsdott) SED-DUP(swsdott)	Metal Metal	Beryllium Boron	0.81 24	mg/kg mg/kg	 	0.0536 2.14		7 NE	2,700 NE	
	Metal	Cadmium	0,49	mg/kg	J	0,0536		3	60:	
	Metal	Calcium	54800	mg/kg		80.4		NE	NE	
	Metal	Chromium	46,3	mg/kg		0.536		NE	NE	
	Metal	Cobalt	11,3	mg/kg		0,0536		NE	NE.	
	Metal	Соррег	44.2	mg/kg		0.107		50	10,000	
	Metal Metal	Iron Lead	25000 33	mg/kg	_	26.8 0,268		NE 63	NE 3,900	
	Metal	Lead	29.3	mg/kg mg/kg		1.07		NE	3,900 NE	
	Metal	Magnesium	10500	mg/kg		2.68		NE	NE	
	Metal	Manganese	963	mg/kg		2.68		1,600	10,000	
SED-DUP(swsd011)	Metal	Mercury	125	μg/kg		4		180°	5700°	
	Metal	Nickel	27.3	mg/kg		0.268		30	10,000	
	Metal	Potassium	3610	mg/kg	11	42.9		NE 4	NE 4 900	
	Metal Metal	Selenium Silver	1,34 0.73	mg/kg mg/kg	ı U	1.34 0.27		4 2	6,800 6,800	
	Metal	Sodium	478	mg/kg	•	42.9		NE	NE	
	Metal	Thallium	0.21	mg/kg	J	0.107		NE	NE	
SED-DUP(swspa11)	Metal	Vanadium	31.7	mg/kg		1.07		NE	NE	
	Metal	Zinc	264	mg/kg		1.07		109	10,000	
	VOC VOC	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	2.63 2.63		U U	2,63 2,63		680 NE	1,000,000 NE	
	VOC	1,1,2-Trichloroethane	2.63	μg/kg	Ü	2.63		NE	NE	
,		1,i-Dichloroethane	2.63	μg/kg	U	2.63		270	480,000	
		1,i-Dichloroethylene	2,63		U	2.63		330	1,000,000	
		1,2-Dichloroethane 1,2-Dichloropropane	2.63 2.63		U U	2.63 2.63	100000	20 NE	60,000 NE	
		2-Butanone	11.8	μg/kg	J	13.2		120	1,000,000	
		2-Hexanone	13.2		U	13.2		NE	NE	
		4-Methyl-2-pentanone	13.2	μg/kg	U.	13.2		NE 50	NE 1 000 000	
		Acctone Benzene	47 2.63	μg/kg μg/kg	U ·	13.2 2.63		50 60	1,000,000 89,000	
		Bromodichloromethane	2.63		Ū	2,63		NE	NE	
		Bromoform	2.63	100	U	2.63		NE	NE.	
· · · · · · · · · · · · · · · · · · ·		Bromomethane Carbon disulfide	2.63 13.2		U	2.63 13.2		NE NE	NE NE	
		Carbon distinge Carbon tetrachloride	2.63	+00	U	2,63		760	44,000	
		Chlorobenzene	2.63	, , ,	U	2,63		1,100	1,000,000	
		Chloroethane	2.63		U	2,63		NE	NE	300
		Chloroform Chloromethane	2.63		U U	2,63 2,63		370 NE	700,000 NE	
		Chloromethane cis-1,2-Dichloroethylene	2.63		U	2,63		250	1,000,000	
ED-DUP(swsp011)		cis-1,3-Dichloropropylene	2.63		U	2,63		-NE	NE	
		Ethylbenzene	2.63		U	2,63		1,000	780,000	
·		Methylene chloride Styrene	13.2	700	U U	13.2 2.63	98003103	50 NE	1,000,000 NE	
		Styrene Tetrachioroethylene	2.63	1.0 0	U	2.63	2006 (200 (193) 200 (200 (193)	1,300	300,000	60.00
		Toluene	2.63		Ü	2,63		700	1,000,000	
		trans-1,2-Dichloroethylene	2.63		U	2,63	100 100 100	190	1,000,000	
		trans-1,3-Dichloropropylene	2.63		U I	2,63		NE 470	NE	
		Trichloroethylene Vinyl chloride	2.63	, , ,	U U	2.63 2.63		20	400,000 27,000	
		Xylenes (total)	2.63	100	U	2,63		260	1,000,000	

SEDIMENT					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	12	E &	Rad	NY Stz Use**	N. O. S. C.	Cr.
SED-DUP(swsperi)	PAH	Acenaphthene	45.5	μg/kg	U	45.5		20,000	1,000,000	
SED-DUP(swsport)	PAH	Acenaphthylene	45.5	μg/kg	U	45.5		100,000	1,000,000	
SED-DUP(swspoii)	PAH	Anthracene	45.5	μg/kg	U	45,5		100,000	1,000,000	
SED-DUP(swsport)	PAH	Benzo(a)anthracene	43.9	µg/kg	J	4,55		1,000	11,000	
SED-DUP(swsdell)	PAH	Benzo(a)pyrene	50.4	μg/kg	J	4.55		1,000	1,100	
SED-DUP(swsd011)	PAH	Benzo(b)fluoranthene	95.5	μg/kg	j	4,55		1,000	11,000	
SED-DUP(swspa11)	PAH	Benzo(ghi)perylene	4,55	μg/kg	U .	4.55		100,000	000,000,1	
SED-DUP(swsD011)	PAH	Benzo(k)fluoranthene	2.28	μg/kg	U	2.28		800,000	110,000	
SED-DUP(swsd011)	PAH	Chrysene	34.1	μg/kg	j	4,55		1,000	110,000	
SED-DUP(swsnor)	PAH	Dibenzo(a,h)anthracene	4,55	μg/kg	U	4.55		330	1,100	
SED-DUP(swsd011)	PAH	Fluoranthene	74.6	μg/kg	J	4,55		100,000	1,000,000	
SED-DUP(swsd011)	PAH	Fluorene	45.5	μg/kg	Ü	45.5		30,000	1,000,000	
SED-DUP(swsneii)	PAH	Indeno(1,2,3-cd)pyrene	4,55	μg/kg	U	4,55		500	11,000	
SED-DUP(swspoii)	PAH	Naphthalene	45.5	μg/kg	U	45.5		12,000	1,000,000	
SED-DUP(swsd011)	PAH	Phenanthrene	35.9	μg/kg	J	45.5		100,000	1,000,000	
SED-DUP(swsnoii)	PAH	Рутеле	76	μg/kg	j	4.55		100,000	1,000,000	
	РСВ	Aroelor-1016	91,2	μg/kg	Ū	30.4		100	25,000	
	PCB	Aroclor-1221	91.2	μg/kg	Ū	30.4		100	25,000	
SED-DUP(SWSD011)	РСВ	Aroclor-1232	91.2	цg/kg	IJ	30.4		100	25,000	
SED-DUP(SWSD011)	РСВ	Aroclor-1242	53,3	μg/kg	J	30.4		100	25,000	
SED-DUP(swsperi)	PCB	Aroclor-1248	91.2	μg/kg	U	30.4		100	25,000	
SED-DUP(swsp011)	PCB	Aroclor-1254	114	μg/kg	j	30,4		100	25,000	
SED-DUP(swspa11)	PCB	Aroclor-1260	91,2	μg/kg	U	30.4		100	25,000	
SED-DUP(swsD011)	Pesticide	4,4'-DDD	36.5	μg/kg	U	36.5		3.3	180,000	
	Pesticide	4,4'-DDE	36.5	μg/kg	Ü	36.5		3.3	120,000	
SED-DUP(swsport)	Pesticide	4,4'-DDT	36.5	μg/kg	U	36.5		3.3	94,000	
SED-DUP(swsD011)	Pesticide	Aldrin	18.2	µg/kg	U	18.2		5	1,400	
	Pesticide	alpha-BHC	18,2	μg/kg	U	18.2	50.000	20	6,800	
	Pesticide	alpha-Chlordane	18,2	μg/kg	υ	18,2		94	47,000	
SED-DUP(swsborn)	Pesticide	beta-BHC	18.2	μg/kg	U	18.2		36	14,000	
	Pesticide	delta-BHC	18,2	μg/kg	U	18.2		40	1,000,000	
SED-DUP(SWSD011)	Pesticide	Dieldrin	36,5	μg/kg	U	36.5		5	2,800	
	Pesticide	Endosulfan I	18,2	μg/kg	U	18.2		2,400 ^d	920,000 ^d	
SED-DUP(swsdell)	Pesticide	Endosulfan II	36.5	μg/kg	ŭ	36.5	0.00	2,400 ^d	920,000 ^d	
	Pesticide	Endosulfan sulfate	36.5	µg/kg	U	36.5		2,400 ^d	920,000 ^d	
	Pesticide	Endrin	36.5	µg/kg µg/kg	Ü	36,5		14	410,000	
	Pesticide	Endrin aldehyde	36.5	μg/kg	Ū	36.5		NE	NE	
	Pesticide	Endrin ketone	36.5	μg/kg	U	36.5		NE	NE	
	Pesticide	gamma-BHC (Lindanc)	18.2	μg/kg	U	18,2		100	23,000	
SED-DUP(swsd011)	Pesticide	gamma-Chlordane	18,2	μg/kg	U	18.2		NE	NE	
	Pesticide	Heptachlor	18.2	μg/kg	U	18,2		42	29,000	
		Heptachlor epoxide	18,2	μg/kg	U	18.2		NE	NE	4355
	Pesticide	Methoxychlor	182	μg/kg	U	182		NE	NE	
SED-DUP(swsd011)	Pesticide	Toxaphene	912	μg/kg	U	912		NE	NE	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/17/	1	D 1' 200	1,000	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		6045	0.262		, TE	T cal
SWSD022 SWSD022	Radiological Radiological	Radium-226 Radium-228	1.820	pCi/g pCi/g	U	0.245 0.917	0.353	NE NE	NE NE	5 ^a 5 ^a
SWSD022	кацююдка	Total Radium a	0.875 1.820	pCi/g	<u> -</u>	0.917	0.398	NE	NE	5 ^a
SWSD022	Radiological	Thorium-228	1.800	pCi/g	J	0.341	0.499	NE	NE	5
SWSD022	Radiological	Thorium-230	1.270	pCi/g		0.160	0.396	NE	NE	5
SWSD022	Radiological	Thorium-232	1.270	pCi/g		0.160	0.396	NE	NE	5
SWSD022	Radiological	Uranium-234	2.330	pCi/g	<u> </u>	0.158	0.531	NE	NE	90 ^b
SWSD022	Radiological	Uranium-235	0.149	pCi/g	<u> </u>	0.101	0.149	NE	NE	90 ^b
SWSD022	Radiological	Uranium-238	2.200	pCi/g	<u> </u>	0.175	0.518	NE	NE	90 ^b
SWSD022	Metal	Total Uranium ^b	4.679 14500	pCi/g mg/kg	├	12,1		NE	NE	90
SWSD022	Metal	Antimony	1.6	mg/kg	┢	0.767		NE NE	NE NE	
SWSD022	Metal	Arsenie	4,5	mg/kg	m	0,725		13	16	
SWSD022	Metal	Barium	127	mg/kg	Г	0.242		350	10,000	
SWSD022	Metal	Beryllium	0.71	mg/kg		0,0484		7	2,700	
SWSD022	Metal	Boron	20.2	mg/kg	<u> </u>	1.93		NE	NE	
SWSD022	Metal	Cadmium	0.41	mg/kg_	J	0.0484		3	60	
SWSD022 SWSD022	Metal	Calcium	29200 32	mg/kg	⊢	72.5		NE	NE NE	
SWSD022 SWSD022	Metal Metal	Chromium Cobalt	10	mg/kg mg/kg	Н	0.484 0.0484		NE NE	NE NE	
SWSD022	Metal	Copper	36.3	mg/kg		0.0967		50	10,000	
SWSD022	Metal	Iron	20900	mg/kg	\vdash	24.2		NE	NE.	
SWSD022	Metal	Lead	25.4	mg/kg		0,242		63	3,900	
SWSD022	Metal	Lithium	23,3	mg/kg		0,967		NE	NE	
SWSD022	Metal	Magnesium	8580	mg/kg		2.42		NE	NE	
SWSD022	Metal	Manganese	801	mg/kg	\vdash	2,42		1,600	10,000	
SWSD022	Metal	Mercury	72.5	ug/kg		3,69		180°	5700°	
SWSD022 SWSD022	Metal Metal	Nickel Potassium	23.8 2720	mg/kg mg/kg	H	0.242 38.7		30 NE	10,000 NE	
SWSD022	Metal	Selenium	1.3	mg/kg	T	1,21		4	6,800	
SWSD022	Metal	Silver	1.1	mg/kg	J	0.248		2	6,800	
SWSD022	Metal	Sodium	243	mg/kg		38.7		NE	NE	
SWSD022	Metal	Thallium	0.18	mg/kg_	J	0.0967		NE	NE	
SWSD022	Metal	Vanadium	27.3	mg/kg		0,967		NE	NE	
SWSD022 SWSD022	Metal	Zinc	135	mg/kg	.,	0.967		109	10,000	
SWSD022	VOC VOC	1,1,1-Trichleroethane 1,1,2,2-Tetrachleroethane	2.45 2.45	μg/kg μg/kg	U	2,45 2,45		680 NE	1,000,000 NE	30.000
SWSD022	VOC	1,1,2-Trichloroethane	2.45	μg/kg	U	2,45		NE	NE.	
SWSD022	VOC	1,1-Dichloroethane	2.45	μg/kg	U	2.45		270	480,000	00.000.000
SWSD022		1,1-Dichloroethylenc	2.45	μg/kg		2,45		330	1,000,000	
SWSD022 SWSD022	VOC VOC	1,2-Dichloroethane	2.45		U U	2,45 2,45		20 NE	60,000 NE	
SWSD022		1,2-Dichloropropane 2-Butanone	2.45 12.2	μg/kg μg/kg	U I	12.3		120	1,000,000	
SWSD022		2-Hexanone	12.3		U	12.3		NE	NE	
SWSD022		4-Methyl-2-pentanone	12.3	μg/kg	υ	12,3		NE	NE	
	VOC	Acetone	37.7	μg/kg		12.3		50	1,000,000	
SWSD022 SWSD022		Benzene Bromodichloromethane	2.45	μg/kg μg/kg	U U	2,45 2,45		60 NE	89,000 NE	
		Bromoform	2.45	μg/kg	υ	2.45		NE	NE	
SWSD022	VOC	Bromomethane	2.45	μg/kg	Ų	2.45		NE	ΝĒ	
		Carbon disulfide	12.3	μg/kg	U	12.3		NE	NE	
		Carbon tetrachloride Chlorobenzene	2.45	μg/kg μg/kg	U U	2,45 2,45		760 1,100	44,000 1,000,000	
		Chlorocthane	2.45	μg/kg μg/kg	U	2.45		1,100 NE	1,000,000 NE	
		Chloroform	2,45	μg/kg	U	2.45		370	700,000	
		Chloromethane	2.45	, , , , ,	U	2.45		NE	NE	
		cis-1,2-Dichtoroethylene	1.61	μg/kg	j	2,45		250	1,000,000	
		cis-1,3-Dichloropropylene Ethylbenzene	2,45	μg/kg μg/kg	U I	2.45 2.45		NE 1,000	NE 780,000	100 (00 00
		Methylone chloride	12.3		U	12.3		50	1,000,000	3000000
SWSD022	voc	Styrene	2.45		Ŭ	2,45		NE	NE	
		l'etrachlorocthylene	2.45	1.0.0	U	2.45		1,300	300,000	
		l'oluene	2,45	1.67 - 6	U	2,45		700	1,000,000	
		trans-1,2-Dichloroethylene trans-1,3-Dichloropropylene	2,45	μg/kg μg/kg	U U	2.45 2.45		190 NE	1,000,000 NE	
		Trichloroethylene	2,43	μg/kg μg/kg	U	2.45		470	400,000	
SWSD022	VOC	Vinyl chloride	2,45		U	2,45		20	27,000	
SWSD022	voc :	Xylenes (total)	2,45	μg/kg	υľ	2,45		260	1,000,000	

SEDIMENT					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State-Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULT		-		25			ă O
SWSD022	PAH	Acenaphthene	41.7	μ g/ kg	U	41.7		20,000	1,000,000	
SWSD022	PAH	Acenaphthylene	41.7	μg/kg	U	41,7		100,000	1,000,000	
SWSD022	PAH	Anthracene	41.7	μg/kg	U	41,7		100,000	1,000,000	
SWSD022	PAH	Benzo(a)anthracene	35.5	μg/kg	<u> </u>	4.17		1,000	11,000	
SWSD022	PAH	Benzo(a)pyrene	39.9	μg/kg	ļ	4.17		1,000	1,100	
SWSD022	PAH	Benzo(b)fluoranthene	4.17	μg/kg	U	4,17		1,000	11,000	
SWSD022	PAH	Benzo(ghi)perylene	4.17	μg/kg	U	4,17		100,000	1,000,000	
SWSD022	PAH	Benzo(k)fluoranthene	2.08	μg/kg	U	2.08		800,000	110,000	
SWSD022	PAH	Chrysene	34.7	μg/kg	Ц.	4.17		1,000	110,000	
SWSD022	PAH	Dibenzo(a,h)anthracene	4.17	μg/kg	U	4.17		330	1,100	
SWSD022	PAH	Fluoranthene	51.9	μg/kg	L	4.17		100,000	1,000,000	
SWSD022	PAH	Fluorene	41.7	μg/kg	U	41.7		30,000	1,000,000	
SWSD022	PAH	Indeno(1,2,3-cd)pyrene	4.17	μg/kg	U	4,17		500	11,000	
SWSD022	PAH	Naphthalene	41.7	μg/kg	U	41.7	18018	12,000	1,000,000	
SWSD022	PAH	Phenanthrene	32.1	μg/kg	J	41,7		100,000	1,000,000	
SWSD022	PAH	Pyrene	58.4	μg/kg		4.17		100,000	1,000,000	
SWSD022	PCB	Aroclor-1016	83.3	μg/kg	U	27.7	18641844193	100	25,000	0.00
SWSD022	PCB	Aroclor-1221	83.3	μg/kg	U	27.7		100	25,000	
SWSD022	PCB	Aroclor-1232	83,3	μg/kg	υ	27.7		100	25,000	60.000
SWSD022	PCB	Aroclor-1242	83.3	μg/kg	U	27.7	00000000000	100	25,000	
SWSD022	PCB	Aroclor-1248	83.3	μg/kg	U	27.7		100	25,000	100.000
SWSD022	PCB	Areclor-1254	83.3	μg/kg	U	27.7		100	25,000	
SWSD022	PCB	Aroclor-1260	83.3	μg/kg	U	27.7		100	25,000	
SWSD022	Pesticide	4,4'-DDD	33.2	μg/kg	U	33.2		3.3	180,000	
SWSD022	Pesticide	4,4'-DDE	33,2	μg/kg	Ú	33,2		3,3	120,000	
SWSD022	Pesticide	4,4'-DDT	33.2	μg/kg	U	33,2		3.3	94,000	
SWSD022	Pesticide	Aldrin	16.6	μg/kg	U	16.6		5	1,400	
SWSD022	Pesticide	aipha-BHC	16,6	μg/kg	Ü	16.6		20	6,800	
SWSD022	Pesticide	alpha-Chlordane	16.6	μg/kg	IJ	16.6		94	47,000	
SWSD022	Pesticide	beta-BHC	16.6	μg/kg	U	16,6		36	14,000	
SWSD022	Pesticide	delta-BHC	16.6	μg/kg	U	16.6		40	1,000,000	
SWSD022	Pesticide	Dieldrin	33,2	μg/kg	Ü	33.2		5	2,800	
SWSD022	Pesticide	Endosulfan I	16,6	μg/kg	U	16.6	1111111111	2,400 ^d	920,000 ^d	
SWSD022	Pesticide	Endosulfan II	33.2	μg/kg	U	33.2		2,400 ^d	920,000 ^d	
SWSD022	Pesticide	Endosulfan sulfate	33,2	μg/kg	U	33.2		2,400 ^d	920,000 ^d	
SWSD022	Pesticide	Endrin	33,2	μg/kg	υ	33.2		14	410,000	
SWSD022	Pesticide	Endrin aldchyde	33,2	μg/kg	U	33.2		NE	NE	
SWSD022	Pesticide	Endrin ketone	33,2	μg/kg	V	33.2		NE	NE	
SWSD022	Pesticide	gamma-BHC (Lindane)	16,6	μg/kg	υ	16,6		100	23,000	
SWSD022	Pesticide	gamma-Chlordane	16,6	μg/kg	U	16,6		NE	NE	
SWSD022	Pesticide	Heptachlor	16,6	μg/kg	U	16.6		42	29,000	
SWSD022	Pesticide	Heptachlor epoxide	16.6	μg/kg	U	16.6		NE	NE	
SWSD022	Pesticide	Methoxychlor	166	100	Ü	166		NE	NE	
SWSD022	Pesticide	Toxaphene	829	μg/kg	U	829	100000000000000000000000000000000000000	NE	NE	356883383

SEDIMENT LOCATION* Sample Date: 6/11/	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Cncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD023	Radiological	Radium-226	1.310	pCi/g		0.253	0,319	NE	NE	5ª
SWSD023	Radiological	Radium-228	0.964	pCi/g		0.641	0.449	NE	NE	
		Total Radium ^a	2.274	pCi/g	_					5ª
SWSD023	Radiological	Thorium-228	1.230	pCi/g	<u> </u>	0.180		NE	NE	
SWSD023 SWSD023	Radiological Radiological	Thorium-230 Thorium-232	0.881	pCi/g pCi/g	┢┉	0.146 0.146			NE NE	5
SWSD023	Radiological	Uranium-234	0.595	pCi/g	一	0.183	0.252	NE NE	NE.	90 ^b
SWSD023	Radiological	Uranium-235	0.039	pCi/g	υ	0.176		NE	NE	90 ^h
SWSD023	Radiological	Uranium-238	1.220	pCi/g		0.154	0.350	NE	NE	90 ^h
		Total Uranium ^b	1.815	pCi/g						90 ^h
SWSD023	Metal	Aluminum	12300	mg/kg		17		NE	NE.	
SWSD023	Metal	Antimony	1,00	mg/kg]	0.53		NE	NE.	
SWSD023 SWSD023	Metal	Arsenic	4.70	mg/kg	,	0.51		13	10,000	
SWSD023	Metal Metal	Barium Beryllium	115.00 0,59	mg/kg mg/kg	Ţ	0.17 0.03		350 7	2,700	
SWSD023	Metal	Boron	13.60	mg/kg	_	1.36		NE	2,700 NE	
SWSD023	Metal	Cadmium	0.58	mg/kg	J	0.03		3	60	
SWSD023	Metal	Calcium	45700	mg/kg		102		NE	NE	
SWSD023	Metal	Chromium	19.90	mg/kg	J	0.34		NE	NE	
SWSD023	Metal	Cobalt	7.80	mg/kg	,	0.03		NE	NE	
SWSD023	Metal	Соррег	54,40	mg/kg	J	0.07		50	10,000	
SWSD023	Metal	Iron	20900	mg/kg	<u>_</u>	34		NE (2	NE 2 000	
SWSD023 SWSD023	Metal Metal	Lead Lithium	63.70 20,50	mg/kg mg/kg	<u>, </u>	0.17		63 NE	3,900 NE	
SWSD023	Metal	Magnesium	18500	mg/kg	\vdash	17		NE	NE	
SWSD023	Metal	Manganese	568	mg/kg	\vdash	31		1,600	10,000	
SWSD023	Metai	Mercury	129.00	цg/kg		2.57		180°	5700°	
SWSD023	Mctal	Nickel	19.60	mg/kg	J	0.17		30	10,000	
SWSD023	Metal	Potassium	2550	mg/kg		272		NE	NE	
SWSD023	Metal	Selenium	0.85	mg/kg	Щ	0.85		4	6,800	
SWSD023	Metal	Silver	0.87	mg/kg	Щ	0.17		2	6,800	
SWSD023 SWSD023	Metal Metal	Sodium Thallium	267.00	mg/kg	J	27.20 0.07		NE NE	NE	
SWSD023	Metal	Vanadium	0.13 24.90	mg/kg mg/kg	J.	0.68		NE NE	NE NE	
SWSD023	Metal	Zinc	294.00	mg/kg		0.68		109	10,000	
SWSD023	VOC	1,1,1-Trichloroethanc	1.51	μg/kg	U	1,51		680	1,000,000	
SWSD023	VOC	1,1,2,2-Tetrachloroethane	1.51	μg/kg	U	1.51		NE	NE	
SWSD023 SWSD023	VOC VOC	1,1,2-Trichloroethane 1,1-Dichloroethane	1.51	μg/kg	U U	1,51		NE 270	NE 480,000	
SWSD023		1,1-Dichloroethylene	1.51 1.51	r.oo	U	1.51 1.51		270 330	1,000,000	
SWSD023	VOC	1,2-Dichlorcethane	1.51		Ū	1,51		20	60,000	
SWSD023	VOC	1,2-Dichloropropane	1.51		U	1.51		NE	NE	
SWSD023	VOC	2-Butanone	4.35	μg/kg	l l	7.57		120	1,000,000	
SWSD023 SWSD023		2-Hexanone 4-Methyl-2-pentanone	7.57 7.57	μg/kg μg/kg	U	7.57 7.57	100000000000000000000000000000000000000	NE NE	NE NE	
SWSD023	VOC	Acetone	7.57	µg/kg µg/kg	U	7.57		50	1,000,000	
SWSD023	VOC	Benzene	1.51	μg/kg	U	1,51		60	89,000	
SWSD023		Bromodichloromethane	1.51		U	1.51		NE	NE	
SWSD023 SWSD023		Bromoform Bromomethane	1.51 1.51	μg/kg μg/kg	U U	1.51 1.51		NE NE	NE NE	
SWSD023		Carbon disulfide	7.57	μg/kg μg/kg	U	7.57		NE NE	NE NE	
SWSD023		Carbon tetrachloride	1.51	μg/kg μg/kg	Ŭ	1,51		760	44,000	
SWSD023		Chlorobenzene	1.51	μg/kg	U	1,51		1,100	1,000,000	
SWSD023		Chlorocthane	1.51	_,	U [1,51		NE	NE 700 000	
SWSD023 SWSD023		Chioroform Chioromethane	1.51 1.51		U U	1.51		370 NE	700,000 NE	
SWSD023		cis-1,2-Dichloroethylene	1.51		U	1,51		250	1,000,000	
SWSD023	VOC	cis-1,3-Dichloropropylene	1,51	. 0 - 0	Ŭ	1,51		NE	NE	
SWSD023		Ethylbenzene	1.51	7-676	U	1,51		1,000	780,000	
SWSD023		Methylene chloride	7,57		U	7,57	98 (88)	50	1,000,000	
		Styrene Fetrachloroethylene	1.51 1.51		U	1,51 1,51	1650 283 153	NE 1,300	NE 300,000	
		Гописис Гописис	1.51		U	1.51		700	1,000,000	
SWSD023	VOC	rans-1,2-Dichloroethylene	1,51		U	1.51		190	1,000,000	
		rans-1,3-Dichloropropylene	1.51		U	1.51		NE	NE.	
		Frichloroethylene	1.51		U	1,51		470	400,000	
5 TY & D.U.Z.3	VOC	Vinyl chloride	1,51	μg/kg	Ü	1.51		20	27,000	

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SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULA	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD023	PAH	Acenaphthene	29,80	μg/kg	U	29,80		20,000	1,000,000	100
SWSD023	PAH	Acenaphthylene	29.80		U	29.80		100,000	1,000,000	
SWSD023	PAH	Anthracene	48.50		Ĭ,	29.80		100,000	1,000,000	
SWSD023	PAH	Benzo(a)anthracene	276,00		ľ	2.98		1,000	11,000	
SWSD023	РАН	Benzo(a)pyrene	298.00	ug/kg	ī	2.98		1,000	1,100	
SWSD023	PAH	Benzo(b)fluoranthene	1040.00	μg/kg	ī	2,97		1,000	11,000	
SWSD023	PAH	Benzo(ghi)perylene	247,00	μg/kg	1	2,98		100,000	1,000,000	
SWSD023	PAH	Benzo(k)flueranthene	1.49	μg/kg μg/kg	IJ	1.49		800,000	110,000	
SWSD023	PAH	Chrysene	237.00	μg/kg μg/kg	 -	2.98		1,000	110,000	
SWSD023	PAH	Dibenzo(a,h)anthracene	2.98	100	U	2.98		330	1,100	
SWSD023	PAH	Fluoranthene	482.00	µg/kg	1	2.98		100,000	1,000,000	
SWSD023	PAH			μg/kg	7.7	STILL STREET,				
		Fluorene	29.80	μg/kg	U	29.80	100000000000000000000000000000000000000	30,000	1,000,000	8063000
SWSD023	PAH	Indeno(1,2,3-cd)pyrene	2.98	μg/kg	U	2,98		500	11,000	
SWSD023	PAH	Naphthaiene	29.80	μg/kg	U	29,80	30.00	12,000	1,000,000	
SWSD023	PAH	Phenanthrene	227.00	μg/kg	J	29,80		100,000	1,000,000	10.00
SWSD023 '	PAH	Pyrene	371.00	μg/kg	J	2.98		100,000	1,000,000	
SWSD023	PCB	Aroclor-1016	59,2	μg/kg	U	19.7		100	25,000	
SWSD023	РСВ	Areclor-1221	59.2	μg/kg	U	19.7	100,450,500	100	25,000	interest
SWSD023	PCB	Aroclor-1232	59.2	μg/kg	U	19.7	100,000,000	100	25,000	60.000.000
SWSD023	PCB	Aroclor-1242	58,9	μg/kg	J	19,7		100	25,000	
SWSD023	PCB	Aroclor-1248	59.2	µg/kg	U	19.7		100	25,000	619616
SWSD023	PCB	Aroclor-1254	61.8	μg/kg		19.7		100	25,000	
SWSD023	PCB	Aroclor-1260	59.2	μg/kg	U	19.7		100	25,000	
SWSD023	Pesticide	4,4'-DDD	47.5	μg/kg	U	47,5		3.3	180,000	
SWSD023	Pesticide	4,4'-DDE	47.5	μg/kg	U	47.5	100100000000000000000000000000000000000	3.3	120,000	
SWSD023	Pesticide	4,4'-DDT	47.5	μg/kg	U	47,5		3.3	94,000	
SWSD023	Pesticide	Aldrin	23.8	μg/kg	U	23,8		5	1,400	
SWSD023	Pesticide	alpha-BHC	23.8	μg/kg	U	23,8		20	6,800	
SWSD023	Pesticide	alpha-Chlordane	23.8	μg/kg	U	23.8		94	47,000	
SWSD023	Pesticide	beta-BHC	23.8	μg/kg	U	23.8		36	14,000	
SWSD023	Pesticide	delta-BHC	23.8	μg/kg	U	23.8		40	1,000,000	
SWSD023	Pesticide	Dieldrin	47.5	μg/kg	U	47.5		5	2,800	64666
SWSD023	Pesticide	Endosulfan I	23.8	μg/kg	U	23,8		2,400 ^d	920,000 ^d	
SWSD023	Pesticide	Endosulfan II	47.5	μg/kg	U	47.5		2,400 ^d	920,000 ^d	
SWSD023	Pesticide	Endosulfan sulfate	47.5	µg/kg	υ	47.5		2,400 ^d	920,000 ^d	
SWSD023	Pesticide	Endrin	47.5	μg/kg μg/kg	U	47.5		2,400	410,000	
SWSD023	Pesticide	Endrin aldehyde	47.5	μg/kg	U	47.5		NE	NE	
SWSD023	Pesticide	Endrin ketone	47.5	μg/kg	Ŭ	47.5		NE	NE	
SWSD023	Pesticide	gamma-BHC (Lindane)	23.8	μg/kg	U	23.8		100	23,000	
SWSD023	Pesticide	gamına-Chlordane	23.8	μg/kg	Ü	23.8		NE	NE	
SWSD023	Pesticide	Heptachlor	23.8	μg/kg	U	23.8		42	29,000	
SWSD023	Pesticide	Heptachlor epoxide	23.8	μg/kg	Ü	23,8		NE	NE	
SWSD023	Pesticide	Methoxychlor	238.0	μg/kg	U	238.0		NE	NE	
SWSD023	Pesticide	Toxaphene	1190.0		U	1190.0		NE	NE	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NX State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/1 SWSD024	Radiological	Radium-226	0.966	pCi/g		0,185	0.247	NE	NE.	5
SWSD024	Radiological	Radium-228	0.498	pCi/g	\vdash	0.460	0.313	NE	NE.	5
	<u> </u>	Total Radium ^a	1.464	pCi/g	Г					5
SWSD024	Radiological	Thorium-228	1,350	pCi/g		0.279	0.374	NE	NE	.5
SWSD024	Radiological	Thorium-230	0,809	pCi/g	<u> </u>	0.148	0.272	NE	NE	5
SWSD024	Radiological	Thorium-232	0,810	pCi/g	 	0.148	0.273	NE.	NE.	90 ^t
SWSD024 SWSD024	Radiological Radiological	Uranium-234 Uranium-235	2,800 0,233	pCi/g pCi/g	-	0.217 0.163	0.538 0.177	NE NE	NE NE	90 ^t
SWSD024	Radiological	Uranium-238	2,590	pCi/g	-	0.187	0.516	NE.	NE.	90 ^t
BIIBDOZT	Radiological	Total Uranium b	5.623	pCi/g		0.707	0.510	,,,,,,,		90 ¹
SWSD024	Metal	Aluminum	26900	mg/kg		29.6		NE	NE	
SWSD024	Mctal	Antimony	2.60	mg/kg	J	0.93		NE	NE	
SWSD024	Metal	Arsenic	6,30	mg/kg	l	0.89		13	16	
SWSD024	Metal	Barium	195.00	mg/kg		0.30		350	10,000	
SWSD024	Metal	Beryllium	1.40	mg/kg	J	0.06		7	2,700	
SWSD024	Metal	Boron	40.10	mg/kg	H	2.37		NE 3	NE 60	
SWSD024 SWSD024	Metal Metal	Cadmium Calcium	1,10 40000	mg/kg mg/kg	Н	0.06 178		3 NE	NE	
SWSD024	Metal	Chromium	37,20	mg/kg	ī	0.59		NE NE	NE	
SWSD024	Metal	Cobalt	16,00	mg/kg	J	0.06		NE	NE.	
SWSD024	Metal	Copper	96.60	mg/kg	J	0.12		50	10,000	
SWSD024	Metal	Iron	40900	mg/kg		59.30		NE	NE	
SWSD024	Metal	Lead	43,10	mg/kg	J	0,30		63	3,900	
SWSD024	Mctal	Lithium	47.30	mg/kg		1.19		NE	NE	
SWSD024	Metal	Magnesium	17300	mg/kg		29,60		NE	NE	
SWSD024	Metal	Manganese	655.00	mg/kg		5,93		1,600	10,000	
SWSD024	Metal	Mercury	200.00	μg/kg	. T	4.06		180°	5700°	
SWSD024 SWSD024	Metal Metal	Nickel	40.60 6490	mg/kg mg/kg	7	0.30 474		30 NE	10,000 NE	
SWSD024	Metal	Potassium Selenium	1.48	mg/kg		1,48		4	6,800	
SWSD024	Metal	Silver	1.50	mg/kg		0.30		2	6,800	
SWSD024	Metal	Sodium	425.00	mg/kg	J	47.40		NE	NE	
SWSD024	Metal	Thallium	0,30	mg/kg	J	0.12		NE	NE	
SWSD024	Metal	Vanadium	50.90	mg/kg		1.19		NE	NE	
SWSD024	Mctal	Zinc	401.00	mg/kg		1.19		109	10,000	
SWSD024	VOC	1,1,1-Trichloroethane	3.05		U	3,05		680	1,000,000	
SWSD024 SWSD024	VOC	1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane	3.05	μg/kg μg/kg	U	3.05 3.05		NE NE	NE NE	
SWSD024	VOC	1,1-Dichlorocthane	3.05		Ū	3.05		270	480,000	
SWSD024	VOC	1,1-Dichlorocthylene .	3.05		U	3,05		330	1,000,000	
SWSD024	VOC	1,2-Dichlorocthane	3,05		U	3,05		20	60,000	
SWSD024	VOC	1,2-Dichloropropane	3.05	μg/kg	U	3,05		NE 120	NE 1.000,000	
SWSD024 SWSD024	VOC	2-Butanone 2-Hexanone	52,50 15,20	µg/kg µg/kg	U	15,20 15,20		120 NE	1,000,000 NE	
SWSD024	VOC	4-Methyl-2-pentanone	15.20	μg/kg	Ü	15.20		NE	NE	
SWSD024	VOC	Acetone	150.00	μg/kg	J	15,20		50	1,000,000	
WSD024	VOC	Benzene	3.05	μg/kg	U	3.05		. 60	89,000	
WSD024	VOC	Bromodichleromethane	3.05	μg/kg	U U	3.05		NE NE	NE NE	
WSD024 WSD024	VOC VOC	Bromoform Bromomethane	3,05 3,05	μg/kg μg/kg	U	3,05 3,05		NE NE	NE NE	
WSD024	voc	Carbon disulfide	15,20	μg/kg μg/kg	Ü	15.20		NE	NE NE	10 10 10 10
WSD024	VOC	Carbon tetrachloride	3.05	μg/kg	U	3.05		760	44,000	
WSD024	VOC	Chlorobenzene	3.05	μg/kg	U	3,05		1,100	1,000,000	
WSD024	VOC	Chloroethane	3.05		U	3.05		NE 270	700 000	
WSD024 WSD024	VOC	Chloroform Chloromethane	3.05 3.05	μg/kg μg/kg	U U	3,05 3,05		370 NE	700,000 NE	
WSD024	VOC	cis-1,2-Dichloroethylene	3.05		U	3,05		250	1,000,000	
WSD024	VOC	cis-1,3-Dichloropropylene	3.05	μg/kg	U	3,05		NE	NE	
WSD024	VOC	Ethylbenzene	3.05		U	3.05		1,000	780,000	100 (84) (8)
WSD024	VOC	Methylene chloride	15,20		U	15,20		50	1,000,000	148 (51 (51)
WSD024 WSD024	VOC	Styrene Tetrachloroethylene	3.05 3.05	-00	U U	3.05 3.05		NE 1,300	NE 300,000	149 188 198
WSD024	VOC	Toluene	3.05	- 0 - 0	U	3,05		700	1,000,000	
WSD024	VOC	trans-1,2-Dichloroethylene	3.05	100	Ŭ	3,05		190	1,000,000	
WSD024	VOC	trans-1,3-Dichloropropylene	3.05	μg/kg	U	3,05		NE	NE	
WSD024	VOC	Trichloroethylene	3.05	10 0	U	3,05		470	400,000	
WSD024	VOC	Vinyl chloride	3.05		U U	3,05		20 260	27,000	
WSD024 WSD024	PAH	Xylenes (total) Accnaphthene	3.05 50.60		U	3.05 50.60		20,000	1,000,000	
WSD024 WSD024	PAH	Acenaphthylene	50.60		U	50.60		100,000	1,000,000	

Table 8 - 15

SEDIMENT	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Cncertainty (±)	NY State- Unrestricted Use***	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD024	РАН	Anthracene	50,60	μg/kg	U	50,60	47	100,000	1,000,000	
SWSD024	PAH	Benzo(a)anthracene	33.30	μg/kg	<u>. </u>	5.06		1,000	11,000	
SWSD024	PAH	Benzo(a)pyrene	27.90	μg/kg μg/kg	7	5.06		1,000	1,100	
SWSD024	PAH	Benzo(b)fluoranthene	5.06	μg/kg μg/kg	U	5.06		1,000	11.000	
SWSD024	PAH	Benzo(ghi)perylene	5,06	μg/kg μg/kg	U	5.06		100,000	1,000,000	
SWSD024	PAH	Benzo(k)fluoranthene	2.53	μg/kg μg/kg	U	2.53		800,000	110,000	
SWSD024	PAH	Chrysene	32.90	μg/kg μg/kg	1	5.06		1,000	110,000	
SWSD024	PAH	Dibenzo(a,h)anthracene	5.06	μg/kg μg/kg	U	5.06		330	1.100	
SWSD024	PAH	Fluorantiene	41.90	100	ı	5.06		100,000	1,000,000	
SWSD024	PAH	Fluorene	50.60	μg/kg	n n	50.60				
SWSD024	PAH			μg/kg	_	5.06	350 (0)	30,000	1,000,000	
SWSD024		Indeno(1,2,3-cd)pyrene	5.06	μg/kg	U	INTERNATION OF THE STATE		500	11,000	
	PAH	Naphthalene	50.60	μg/kg	U	59,60		12,000	1,000,000	
SWSD024	PAH	Phenanthrene	29.70	μg/kg]	50,60		100,000	1,000,000	
SWSD024	PAH	Pyrene	50.10	μg/kg 	J	5.06		100,000	1,000,000	
SWSD024	PCB	Aroclor-1016	101.0	μg/kg	U	33.8		100	25,000	
SWSD024	РСВ	Aroclor-1221	101.0	μg/kg	U	33,8		100	25,000	acceptable.
SWSD024	PCB	Arocier-1232	101.0	μg/kg	U	33.8	1001482.00	100	25,000	
SWSD024	PCB	Aroclor-1242	101,0	μg/kg	3	33.8		100	25,000	
SWSD024	PCB	Aroclor-1248	101.0	μg/kg	U	33,8		100	25,000	
SWSD024	PCB	Aroclor-1254	45.6	μg/kg	J	33.8		100	25,000	
SWSD024	PCB	Aroclor-1260	101,0	μg/kg	U	33.8	188103	100	25,000	
SWSD024	Pesticide	4,4'-DDD	40.5	μg/kg	U	40,5		3.3	180,000	
SWSD024	Pesticide	4,4'-DDE	40.5	μg/kg	U	40.5	10.00	3,3	120,000	
SWSD024	Pesticide	4,4'-DDT	40.5	μg/kg	υ	40.5		3.3	94,000	
SWSD024	Pesticide	Aldrin	20.3	μg/kg	υ	20,3		5	1,400	
SWSD024	Pesticide	alpha-BHC	20.3	μg/kg	U	20.3		20	6,800	
SWSD024	Pesticide	alpha-Chlordane	20.3	μg/kg	U	20.3		94	47,000	
SWSD024	Pesticide	beta-BHC	20.3	μg/kg	U	20.3		36	14,000	
SWSD024	Pesticide	delta-BHC	20.3	μg/kg	U	20.3		40	1,000,000	
SWSD024	Pesticide	Dieldrin	40.5	μg/kg	U	40.5		5	2,800	
SWSD024	Pesticide	Endosulfan I	20.3	µg/kg	U	20,3		2,400 ^d	920,000 ^d	
SWSD024	Pesticide	Endosulfan II	40,5	μg/kg	U	40.5		2,400 ^d	920,000 ^d	
SWSD024	Pesticide	Endosulfan sulfate	40,5	μg/kg	U	40.5	B18888	2.400 ^d	920,000 ^d	
SWSD024	Pesticide	Endrin	40.5	μg/kg	Ū	40.5		14	410,000	100.000
SWSD024	Pesticide	Endrin aldehyde	40.5	μg/kg	U	40.5		NE	NE	
SWSD024	Pesticide	Endrin ketone	40.5		U	40.5		NE	NE	10 (0.00)
SWSD024	Pesticide	gamma-BHC (Lindane)	20.3		U	20,3		100	23,000	
SWSD024	Pesticide	gamma-Chlordane	20.3		U	20.3		NE	NE	
SWSD024	Pesticide	Heptachlor	20.3		Ū	20.3		42	29,000	
SWSD024	Pesticide	Heptachlor epoxide	20.3	μg/kg	Ū	20,3		NE	NE	
SWSD024		Methoxychlor	203.0		U	203,0	die	NE	NE	
SWSD024	Pesticide	Toxaphene	1010	μg/kg	U	1010	100100	NE	NE	

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SEDIMENT					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (+	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION* Sample Date: 6/11/	PARAMETER* 2008	ANALYTE	RESULT	UNITS*	10				<u>Zp</u>	IE O
WDDI	Radiological	Radium-226	1.070	pCi/g		0.197	0.249	NE	NE	
WDD1	Radiological	Radium-228	1.170	pCi/g	<u>L</u> .	0.485	0.420	NE.	NE	
WDD1	Radiological	Total Radium ^a Thorium-228	2.240 1.230	pCi/g pCi/g	├	0,325	0.393	NE.	NE	5ª 5
WDD1	Radiological	Thorium-230	1.070	pCi/g	 -	0.163	0.337	' NE	NE NE	
WDD1	Radiological	Thorium-232	1.360	pCi/g		0.193	0.382	. NE	NE	5
WDD1	Radiological	Uranium-234	1.040	pCi/g		0.160	0,330	NE	NE.	90 ^b
WDD1	Radiological	Uranium-235	0.024	pCi/g	U	0.141	0.065	NE NE	NE.	90 ^b
WDD1	Radiological	Uranium-238 Total Uranium b	1.010 2.050	pCi/g pCi/g	-	0.114	0.322	NE.	NE	90 ^b
WDD1	Metal	Aluminum	23700	mg/kg		27.10		NE	NE	90
WDD1	Metal	Antimony	0.84	mg/kg	Ü	0.84		NE	NE	
WDD1	Mctal	Arsenic	3.30	mg/kg	J	0.81		13	16	
WDD1	Metal	Barium	156,00	mg/kg	<u> </u>	0.27		350	10,000	9-MYC04313130306191
WDD1 WDD1	Metal Metal	Beryllium Boron	1.10 27.60	mg/kg mg/kg	H	0.05 2.17		7 NE	2,700 NE	
WDD1	Metal	Cadmium	0.37	mg/kg mg/kg	J	0,05		3	60	
WDD1	Metal	Calcium	33600	mg/kg		163		NE	NE	0.000
WDD1	Metal	Chromium	34.10	mg/kg	J	0.54		NE	NE	
WDD1	Metal	Cobalt	13.30	mg/kg	J	0,05		NE	NE.	
WDD1 WDD1	Metal Metal	Copper Iron	40,10 35100	mg/kg mg/kg	J	0.11 54.20		50 NE	10,000 NE	
WDD1	Metal	Lead	16,20	mg/kg	J	0,27		63	3,900	
WDD1	Metal	Lithium	43.60	mg/kg		1.08		NE	NE NE	
WDDI	Metal	Magnesium	14100	mg/kg		27.10		NE	NE	
WDD1	Metal	Manganese	834.00	mg/kg		5,42		1,600	10,000	
WDD1	Metal	Mercury	42,00	µg/kg		4.10		180°	5700°	
WDD1 WDD1	Metal Metal	Nickel Potassium	31,60 6270	mg/kg mg/kg	J	0.27 434		30 NE	10,000 NE	
WDD1	Metal	Selenium	1.35	mg/kg		1,35		4	6,800	
WDD1	Metal	Silver	1,40	mg/kg		0.27		2	6,800	
WDDI	Metal	Sodium	480	mg/kg	J	43.40		NE	NE.	
WDD1	Metal	Thallium	0.22	mg/kg	J	0,11		NE	NE NE	
WDD1 WDD1	Metai Metai	Vanadium Zinc	41.70 152	mg/kg mg/kg	_	1.08		NE 109	NE 10,000	
WDD!	VOC	1,1,1-Trichloroethane	2.67		U	2.67		680	1,000,000	
WDD1	VOC	1,1,2,2-Tetrachloroethane	2.67		U	2.67		NE	NE	
WDD1	VOC	1,1,2-Trichloroethane	2.67	μg/kg	U	2.67		NE	NE 490 000	
WDDI WDDI	VOC .	1,1-Dichloroethane 1,1-Dichloroethylene	2.67		Ü	2.67 2.67		270 330	480,000 1,000,000	
WDD1	VOC	1,2-Dichloroethane	2.67		Ü	2.67		20	60,000	
WDD1	VOC	1,2-Dichloropropane	2.67		IJ	2.67		NE	NE	
WDD1 WDD1	VOC VOC	2-Butanone 2-Hexanone	11.60 13.30	μg/kg μg/kg	j U	13.30		120 NE	1,000,000 NE	
WDD1	VOC	4-Mcthyl-2-pentanone	13.30		υ	13.30		NE NE	NE NE	
WDD1	VOC	Acetone	20,30	μg/kg	j	13.30		50	1,000,000	
WDD1	VOC	Beazene	2,67		U	2.67		60	89,000	
WDD1 WDD1	VOC VOC	Bromodichloromethane Bromoform	2.67 2.67	μg/kg μg/kg	U	2.67 2.67		NE NE	NE NE	
WDDI	VOC	Bromomethane	2.67	μg/kg μg/kg	υ	2.67		NE	· NE	90800000
WDD1	VOC	Carbon disulfide	13.30	μg/kg	U	13.30		NE	NE	
WDDI	VOC ·	Carbon tetrachloride	2.67		U.	2.67		760	44,000	
WDD1 WDD1	VOC :	Chlorobenzene Chloroethane	2,67 2,67		U U	2.67 2.67		1,100 NE	1,000,000 NE	
WDDI	VOC	Chloroform	2.67		U	2.67		370	700,000	
WDD1	VOC	Chloromethane	2,67	μg/kg	U	2.67		NE	NE	
WDD1 WDD1	VOC	cis-1,2-Dichloroethylene cis-1,3-Dichloropropylene	2,67 2,67		U U	2.67 2.67		250 NE	1,000,000 NE	
WDD1	VOC	Ethylbenzene	2.67		U	2.67		1,000	780,000	120 830 95
WDD1	VOC	Methylene chloride	13,30	μg/kg	Ŭ	13,30		50	1,000,000	
	VOC	Styrene	2.67		U	2,67		NE	NE	81800.00
	VOC VOC	Tetrachloroethylene Toluene	2.67 2.67		U U	2.67 2.67		1,300 700	300,000 1,000,000	
	VOC	trans-1,2-Dichloroethylene	2.67		U	2.67		190	1,000,000	
WDD1	VOC	trans-1,3-Dichloropropylene	2,67	μg/kg	U	2.67		NE	NE	
	VOC	Trichloroethylene	2.67		U	2,67		470	400,000	
	VOC VOC	Vinyl chloride Xylencs (total)	2.67		U I	2.67 2.67		20 260	27,000 1,000,000	
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Table 8

SEDIMENT					QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULT							PΥ
WDD1	PAH	Accnaphthene	46.10	μg/kg	U	46.10		20,000	1,000,000	
WDD1	PAH	Acenaphthylene	46,10	µg/kg	υ	46.10	Walter A. College A. College	100,000	1,000,000	
WDDI	PAH	Anthracene	46,10	μg/kg	U.	46.10		100,000	1,000,000	
WDDI	PAH	Benzo(a)anthracene	4.61	μg/kg	U	4,61		1,000	11,000	
WDD1	PAH	Benzo(a)pyrene	4.61	µg/kg	U	4.61		1,000	1,100	
WDDI	PAH	Benzo(b)fluoranthene	4,61	μg/kg	U	4.61		1,000	11,000	
WDD1	PAH	Benzo(ghi)perylene	4.61	μg/kg	U	4,61		100,000	1,000,000	
WDD1	PAH	Benzo(k)fluoranthene	2.31	μg/kg	U	2.31		800,000	110,000	
WDD1	PAH	Chrysene	4,61	μg/kg	U	4.61		1,000	110,000	
WDD1	PAH	Dibenzo(a,h)anthracene	4.61	µg/kg	U	4.61		330	1,100	
WDD1	PAH	Fluoranthene	20.00	μg/kg	J	4.61		100,000	1,000,000	
WDD1	PAH	Fluorene	46,10	μg/kg	U	46,10		30,000	1,000,000	
WDDI	PAH	Indeno(1,2,3-ed)pyrene	4.61	μg/kg	U	4.61		500	11,000	
WDD1	PAH	Naphthalene	46.10	μg/kg	U	46,10		12,000	1,000,000	
WDD1	PAH	Phenanthrene	12,50	μg/kg	l	46.10		100,000	1,000,000	
WDDI	PAH	Pyrenc	19,30	μg/kg	J	4.61		100,000	1,000,000	
WDD1	PCB	Aroclor-1016	92.3	μg/kg	U	30.7		100	25,000	
WDD1	РСВ	Aroclor-1221	92.3	μg/kg	U	30.7		100	25,000	
WDDI	PCB	Aroclor-1232	92.3	μg/kg	U	30.7		100	25,000	
WDD1	PCB	Arocior-1242	92.3	μg/kg	U	30.7		100	25,000	
WDD1	PCB	Arector-1248	92.3	μg/kg	U	30.7		100	25,000	
WDD1	PCB	Aroclor-1254	92.3	цg/kg	U	30.7		100	25,000	
WDD1	PCB	Aroclor-1260	92.3	µg/kg	U	30.7		100	25,000	
WDD1	Pesticide	4,4'-DDD	73.7	μg/kg	U	93.7		3.3	180,000	
WDD1	Pesticide	4,4'-DDE	73.7	μg/kg	υ	13.7		3.3	120,000	
WDDI	Pesticide	4,4'-DDT	73.7	μg/kg	U	73.7	A 100 (6)	3.3	94,000	
WDD1	Pesticide	Aldrin	36.9	μg/kg	U	36.9		5	1,400	0.000
WDDI	Pesticide	alpha-BHC	36,9	μg/kg	U	36.9		20	6,800	
WDD1	Pesticide	alpha-Chlordane	. 36.9	µg/kg	U	36.9	arana aran	94	47,000	
WDD1	Pesticide	beta-BHC	36.9	μg/kg	U	36.9		36	14,000	
WDDI	Pesticide	delta-BHC	36,9	μg/kg	Ü	36.9		40	1,000,000	
WDD1	Pesticide	Dieldrin	73.7	μg/kg	U	73.7		5	2,800	
WDD1	Pesticide	Endosulfan I	36,9	µg/kg	U	36.9		2,400 ^d	920,000 ^d	
WDDI	Pesticide	Endosulfan II	73.7	µg/kg	U	73.7		2,400 ^d	920,000 ^d	
WDDI	Pesticide	Endosulfan sulfate	73.7	μg/kg	IJ	73.7		2,400 ^d	920,000 ^d	
WDDI	Pesticide	Endrin	73.7	ид/kg	U	73.7		2,400	410,000	
WDD1	Pesticide	Endrin aldehyde	73.7	μg/kg	Ü	73.7		NE	NE	
WDD1	Pesticide	Endrin ketone	73.7	μg/kg	υ	73.7		NE	NE.	
WDD1	Pesticide	gamma-BHC (Lindane)	36.9	μg/kg	U	36.9		100	23,000	
WDD1	Pesticide	gamma-Chlordane	36,9	μg/kg	U	36.9		NE	NE	1000
WDD1	Pesticide	Heptachlor	36,9	μg/kg	Ü	36.9		42	29,000	
WDDI	Pesticide	Heptachlor epoxide	36.9	μg/kg	U	36,9		NE	NE	
WDDI	Pesticide	Methoxychlor	369	μg/kg	Ü	369		NE	NE	
WDDI	Pesticide	Toxaphene	1840	μg/kg	U.	1840		NE	NE	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULI	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
	/2008	T				0.100	0.107			- FB
WDD2 WDD2	Radiological Radiological	Radium-226 Radium-228	0,679	pCi/g pCi/g		0,183 0,439	0.197 0.350	NE NE	NE NE	5ª 5ª
WIDDZ	Kaulologicai	Total Radium ^a	1,627	pCi/g	H	0,439	0.330	IVE	INE.	5ª
WDD2	Radiological	Thorium-228	1,100	pCi/g		0,220	0.346	NE	NE	5
WDD2	Radiological	Thorium-230	0.831	pCi/g		0,130	0.290	NE	NE	. 5
WDD2	Radiological	Thorium-232	0.755	pCi/g		0,130	0.276	NE	NE	5 90 ^b
WDD2 WDD2	Radiological Radiological	Uranium-234 Uranium-235	0,855	pCi/g pCi/g	IJ	0,190 0,190	0.298 0.124	NE NE	NE NE	90 ^b
WDD2	Radiological	Uranium-238	0,866	pCi/g	U	0,128	0.124	NE NE	NE NE	90 ^b
11302	Radiological	Total Uranium b	1,721	pCi/g	H	0,125	0.273		112	90 _p
WDD2	Metal	Aluminum	17900	mg/kg		22.10		NE	NE	
WDD2	Metal	Antimony	1.10	mg/kg	J	0.67		NE	NE	
WDD2	Metal	Arsenie	2.70	mg/kg	J	0,66		13	16	
WDD2	Metal	Barium	130.00	mg/kg	Ш	0,22		350	10,000	
WDD2	Metal	Beryllium	0.82	mg/kg	J.	0.04		7	2,700	
WDD2 WDD2	Metal Metal	Boron Cadmium	18,80 0.24	mg/kg mg/kg	J	1.77 0.04		NE 3	NE 60	
WDD2 WDD2	Metal	Calcium	21500	mg/kg	1	132		NE NE	NE NE	
WDD2	Metal	Chromium	28,90	mg/kg	J	0.44		NE.	NE	
WDD2	Metal	Cobalt	9.10	mg/kg	J	0.04		NE	NE	
WDD2	Mctal	Соррег	35.20	mg/kg	ĺ	0.09		50	10,000	
WDD2	Metal	Iron	25200	mg/kg		44.10		NE	NE	
WDD2	Metal	Lead	13.50	mg/kg	1	0.22		63	3,900	
WDD2	Metal	Lithium	31.50	mg/kg		0.88		NE	NE	
WDD2 WDD2	Metal	Magnesium	8730 794	mg/kg		22,10 4,41		NE 1,600	NE 10,000	
WDD2	Metal Metal	Manganese Mercury	48.80	mg/kg μg/kg	\dashv	3.00		1,600 180°	5700°	100
WDD2	Metal	Nickel	21.80	mg/kg	j	0.22		30	10,000	
WDD2	Metal	Potassium	4330	mg/kg		353		NE	NE	
WDD2	Metal	Selenium	1.10	mg/kg		1,10		4	6,800	
WDD2	Metal	Silver	1.10	mg/kg	J	0.22		2	6,800	
WDD2	Metal	Sodium	276.0	mg/kg	J	35,3		NE	NE	
WDD2	Metal	Thallium	0.16	mg/kg	J	0.09		NE	NE	
WDD2 WDD2	Metal	Vanadium Zine	28.90 159.00	mg/kg mg/kg	\vdash	0.88 0.88		NE 109	NE 10,000	
WDD2	VOC	1.1.1-Trichloroethane	2,14	μg/kg	Ū	2,14		680	1,000,000	
WDD2	VOC	1,1,2,2-Tetrachloroethane	2.14		Ū	2,14		NE	NE	
WDD2	VOC	1,1,2-Trichloroethane	2.14	μg/kg	U	2.14		NE	NE	
WDD2	VOC	1,1-Dichloroethane	2,14	μg/kg	U	2,14		270	480,000	
VDD2 VDD2	VOC	1,1-Dichtoroethylene 1,2-Dichloroethane	2,14	μg/kg μg/kg	U	2,14		330 20	60,000	
WDD2	voc	1,2-Dichloropropane	2,14		Ŭ	2,14		NE	NE	
WDD2	VOC	2-Butanone	10,7		U	10,7		120	1,000,000	
VDD2		2-Hexanone	10.7		U	10.7		NE	NE	
VDD2 VDD2	VOC	4-Methyl-2-pentanone Acetone	10.7		U U	10.7 10.7		NE 50	NE 1,000,000	
VDD2	voc	Benzene	2.14		U	2.14		60	89,000	
VDD2	VOC	Bromodichloromethane	2.14		U	2.14		NE	NE	
VDD2	VOC	Bromoform	2.14		U	2.14		NE	NE	
VDD2	VOC	Bromomethane	2.14		U	2,14		NE	NE NE	
VDD2 VDD2	VOC VOC	Carbon disulfide Carbon tetrachloride	10.70 2.14		U U	10,70 2,14		NE 760	NE 44,000	
VDD2	VOC	Chlorobenzene	2.14		U	2.14	100000	1,100	1,000,000	
VDD2	VOC	Chlorocthane	2.14	μg/kg	U	2.14		NE	NE	
VDD2	VOC	Chloroform	2.14	, , ,	U	2,14		370	700,000	
VDD2 VDD2	VOC VOC	Chloromethane cis-1,2-Dichloroethylene	2.14		U U	2.14 2.14		NE 250	NE 1,000,000	
VDD2		cis-1,3-Dichloropropylene	2.14	F-6 6	U	2.14		NE	1,000,000 NE	
VDD2	VOC	Ethylbenzene	2.14		U	2.14	1100	1,000	780,000	
VDD2		Methylene chloride	10.70	100	U	19.70		50	1,000,000	
VDD2		Styrene	2.14	100	U	2,14		NE	NE	
VDD2 VDD2		Tetrachloroethylene Tolucne	2.14	F-00	U	2,14		1,300 700	300,000	
VDD2		trans-1,2-Dichloroethylene	2.14	100	U	2,14		190	1,000,000	
VDD2	VOC	trans-1,3-Dichloropropylene	2.14		υ	2,14		NE	NE	
VDD2		Trichloroethylene	2.14	μg/kg	υ	2,14		470	400,000	
/DD2	voc T	Vinyl chłoride	2.14	μg/kg	U	2.14	0.00 C C C C C C C C C C C C C C C C C C	20	27,000	26000000000000000000000000000000000000

SEDIMENT	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
WDD2	PAH	Acenaphthene	37,20	µg/kg	U	37,20		20,000	1,000,000	
WDD2	PAH	Acenaphthylene	37.20	μg/kg	U	37.20		100,000	1,000,000	
WDD2	PAH	Anthracene	37.20	μg/kg	Ŭ	37.20		100,000	1,000,000	
WDD2	PAH	Benzo(a)anthracene	18.40	де/kg	ī	3.72		1,000	11,000	
WDD2	PAH	Benzo(a)pyrene	15.10	µg/kg	Ī	3.72		1,000	1,100	
WDD2	PAH	Benzo(b)fluoranthene	3.72	μg/kg	U	3,72		1,000	11,000	
WDD2	PAH	Benzo(ghi)perylene	3,72	μg/kg	U	3.72		100,000	1,000,000	
WDD2	PAH	Benzo(k)fluoranthene	1.86	μg/kg	U	1.86		800,000	110,000	
WDD2	PAH	Chrysene	15.90	μg/kg μg/kg	ī	3.72		1,000	110,000	
WDD2	PAH	Dibenzo(a,h)anthracene	3,72	μg/kg μg/kg	U	3.72		330	1,100	
WDD2	PAH	Fhioranthene	23.10	μg/kg μg/kg	T	3.72	100000000	100,000	1,000,000	
WDD2	PAH	Fluorenc	37.20		U	37.20		30,000	1,000,000	
WDD2				μg/kg	U	3,72		500	11,000	
WDD2	PAH PAH	Indeno(1,2,3-cd)pyrene	3.72 37.20	μg/kg	IJ	37.20		12,000	1,000,000	
		Naphthalene	37.20	μg/kg	U	37.20		100,000	1,000,000	
WDD2	PAH	Phenanthrene		μg/kg		3,72			1,000,000	
WDD2 WDD2	PAH PCB	Pyrene	26.40 74	µg/kg	U			100,000 100	25,000	1000000000
		Aroclor-1016		μg/kg	U	24.6	100 100 100	100		
WDD2	PCB	Aroclor-1221	74	μg/kg	-	24.6			25,000	
WDD2	PCB	Aroclor-1232	74	μg/kg	U	24,6		100	25,000	
WDD2	PCB	Aroclor-1242	74	μg/kg	U	24.6	10011-005-000	100	25,000	
WDD2	PCB	Aroclor-1248	74	μg/kg	U	24.6	33.43	100	25,000	
WDD2	PCB	Aroclor-1254	74	μg/kg	U	24,6	0.000000	. 100	25,000	
WDD2	PCB	Aroclor-1260	74	μg/kg	U	24.6		100	25,000	
WDD2	Pesticide	4,4'-DDD	59.4	μg/kg	U	59,4		3.3	180,000	
WDD2	Pesticide	4,4'-DDE	59.4	μg/kg	U	59,4		3.3	120,000	
WDD2	Pesticide	4,4'-DDT	59,4	μg/kg	U	59,4		3.3	94,000	100 (27 (28)
WDD2	Pesticide	Aldrin	29.7	μg/kg	U	29.7			1,400	
WDD2	Pesticide	alpha-BHC	29.7	μg/kg	U	29,7		20	6,800	
WDD2	Pesticide	alpha-Chlordane	29.7	μg/kg	U .	29.7		94	47,000	
WDD2	Pesticide	beta-BHC	29.7	μg/kg	U	29.7		36	14,000	
WDD2	Pesticide	delta-BHC	29.7	μg/kg	U	29.7		40	1,000,000	1906
WDD2	Pesticide	Dietdrin	59.4	μg/kg	U	59.4		5	2,800	
WDD2	Pesticide	Endosulfan I	29.7	μg/kg	U	29.7		2,400 ^d	920,000 ^d	
WDD2	Pesticide	Endosulfan II	59.4	μg/kg	U	59.4		2,400 ^d	920,000 ^d	
WDD2	Pesticide	Endosulfan sulfate	59.4	μg/kg	U	59,4		2,400 ^d	920,000 ^a	
WDD2	Pesticide	Endrin	59.4	μg/kg	Ü	59.4		14	410,000	
WDD2	Pesticide	Endrin aldehyde	59.4	μg/kg	U	59.4		NE	NE	
WDD2	Pesticide	Endrin ketone	59.4	μg/kg	U	59,4		NE 100	NE 22 000	
WDD2	Pesticide	gamma-BHC (Lindanc)	29.7	μg/kg.	U	29,7		100	23,000	
WDD2	Pesticide	gamma-Chlordanc	29.7	μg/kg	υ	29.7 29.7		NE 42	NE 29,000	
WDD2 WDD2	Posticide Posticido	Heptachior	29.7	μg/kg	U U	29.7 29.7	100 100 100	NE	29,000 NE	
WDD2	Pesticide Pesticide	Heptachlor epoxide Methoxychlor	29.7 297	μg/kg μg/kg	U	29.7 297		NE NE	NE NE	1000 1000 1000
WDD2	Pesticide	Toxaphene	1480	μg/kg μg/kg	U	1480		NE NE	NE NE	
11 - 23,744	I cottotac	i complicate	1-100	14 F/ 12 F/	~	DESCRIPTION OF THE PROPERTY OF	contractors (CASA)	1117	1415	5-16-16-16-16-16-16-16-16-16-16-16-16-16-

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 6/12/ WDD3	1	D. J 026	1 220	-64		0.167	0.044	N.E.	NE	ДО (Д.) Са
WDD3	Radiological	Radium-226	1.230	pCi/g	⊢	0.157	 		NE	5 ^a
WDD3	Radiological	Radium-228 Total Radium a	0,828 2,058	pCi/g	一	0.418	0.336	NE	NE	5 ^a
WDD3	Radiological	Thorium-228	1,100	pCi/g pCi/g	一	0,259	0.374	NE	NE	5
WDD3	Radiological	Thorium-230	1.350	pCi/g	一	0,149		NE.	NE	5
WDD3	Radiological	Thorium-232	1,100		Г	0,077	0.353	NE	NE	
WDD3	Radiological	Uranium-234	0.960	pCi/g		0,219	0.321	NE	NE	90 ^b
WDD3	Radiological	Uranium-235	0,130	pCi/g	υ	0,176	0.138	NE	NE	90 ^b
WDD3	Radiological	Uranium-238	1,200	pCi/g	L	0,155	0.348	NE	NE	90 ^b
		Total Uranium ^b	2,160	pCi/g	L.					90 ^b
WDD3	Metal	Aluminum	30300	mg/kg	上	28.70		NE	NE.	
WDD3	Metal	Antimony	0.89	mg/kg	U	0.89		NE	NE	
WDD3	Metal	Arsenie	4,50	mg/kg	J_	0.86		13	16	
WDD3	Metal	Barium	191.00	mg/kg	<u>_</u>	0.29		350	10,000	
WDD3	Metal	Beryllium	1.40	mg/kg	٢	0.06	10000	7	2,700	
WDD3 WDD3	Metal Metal	Beron Cadmium	29,60 0.50	mg/kg mg/kg	1	2,30 0.06		NE 3	NE 60	
WDD3	Metal	Calcium	59100	mg/kg		172		NE	NE	
WDD3	Metal	Chromium	38,70	mg/kg	┰	0,58		NE.	NE.	
WDD3	Metal	Cobalt	17.00	mg/kg	٦	0.06		NE	NE	
WDD3	Metal	Copper	48.90	mg/kg	J	0.12		50	10,000	
WDD3	Metal	Iron	42100	mg/kg	Г	57.50		NE	NE	
WDD3	Metal	Lead	18.20	mg/kg	1	0.29		63	3,900	
WDD3	Metal	Lithium	49.60	mg/kg		1.15		NE	NE	
WDD3	Metal	Magnesium	18400	mg/kg		28.70		NE	NE	
WDD3	Metal	Manganese	1000	mg/kg		5.75		1,600	10,000	
WDD3	Metal	Mercury	48.20	μg/kg	L.	4.18		180°	5700°	
WDD3	Metal	Nickel	37.40	mg/kg	J	0.29		30	10,000	
WDD3	Metal	Potassium	7700	mg/kg	Ь.	460		NE	NE	
WDD3	Metal	Selenium	1.44	mg/kg	<u> </u>	1.44		4	6,800	
WDD3 WDD3	Metal	Silver	1.50	mg/kg	-	0.29		2	6,800	
WDD3	Metal Metal	Sodium Thallium	513 0.26	mg/kg mg/kg	1	46 0.12		NE NE	NE NE	
WDD3	Metal	Vanadium	51.20	mg/kg	3	1.15		NE NE	NE NE	
WDD3	Metal	Zinc	176,00	mg/kg	H	1.15		109	10,000	
WDD3	VOC	1,1,1-Trichloroethane	2,82	μg/kg	U	2.82		680	1,000,000	
WDD3	VOC	1,1,2,2-Tetrachioroethane	2,82	μg/kg	U	2,82		NE	NE	
WDD3	VOC	1,1,2-Trichloroethane	2.82	μg/kg	U	2.82		NE	NE	
WDD3	VOC	1,1-Dichloroethane	2,82	µg/kg	U	2,82	100000	270	480,000	
WDD3 WDD3	VOC VOC	1,1-Dichloroethylene 1,2-Dichloroethane	2,82		U	2,82 2,82		330 20	1,000,000	80215311
WDD3	VOC	1,2-Dichloropropane	2,82		U	2,82	100	NE.	NE	30000000
WDD3	VOC	2-Butanone	12.40	με/kg	J	14.10		120	1,000,000	200
WDD3	VOC .	2-Hexanone	14.10	μg/kg	U	14.10		NE	NE	
WDD3	VOC	4-Methyl-2-pentanone	14.10	μg/kg	U	14,10		NE	NE	
WDD3	VOC	Acctone	18,50	μg/kg	J	14,10		50	1,000,000	
WDD3 WDD3	VOC VOC	Benzene Bromodichloromethane	2.82	μg/kg	U U	2,82 2,82		60 NE	89,000 NE	
WDD3	VOC	Bromoform	2.82	μg/kg μg/kg	U	2,82		NE	NE	
WDD3	VOC	Bromomethane	2.82	. 00	Ŭ	2,82	10.000	NE	NE	
WDD3	VOC	Carbon disulfide	14.10	μg/kg	Ü	14.10	10010071	NE	NE	
	VOC	Carbon tetrachloride	2.82	μg/kg	U	2,82		760	44,000	
WDD3	VOC	Chlorobenzene	2.82	100	U	2,82		1,100	1,000,000	
	VOC	Chlorocthane	2,82		U	2,82		NE NE	700.000	
	VOC VOC	Chloroform Chloromethane	2,82		U U	2.82 2.82	49 (52 KH)	370 NE	700,000 NE	
	voc	cis-1,2-Dichloroethylene	2,82		U	2,82		250	1,000,000	
	VOC	cis-1,3-Dichloropropylene	2.82	1-0-0	Ŭ	2.82	80.80.88	NE	NE NE	
WDD3	VOC	Ethylbenzene	2.82	μg/kg	U	2,82		1,000	780,000	
		Methylene chloride	14.10	- 0 0	U	14,10	66.000	50	1,000,000	
		Styrene	2,82		U	2,82		NE	NE 200 000	
		Tetrachloroethylene Toluene	2.82		J J	2,82 2,82		1,300	300,000 1,000,000	
		trans-1,2-Dichloroethylene	2.82	- 0 0	U	2,82	300000000000000000000000000000000000000	190	1,000,000	200
		trans-1,3-Dichloropropylene	2.82	, 0 0	U	2,82	60000000	NE	1,000,000 NE	
VDD3	VOC	Trichlorocthylene	2.82		Ū	2,82		470	400,000	
		Vinyl chloride	2,82	µg/kg	U	2,82		20	27,000	
VDD3	VOC (Xylenes (total)	2.82	μg/kg	U	2.82		260	1,000,000	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
WDD3	PAH	Acenaphthene	48	μg/kg	υ	48	STATE OF THE PARTY	20,000	1,000,000	
WDD3	PAH	Acenaphthylene	48	μg/kg	U	48		100,000	1,000,000	
WDD3	PAH	Anthracene	48	μg/kg	Ŭ	48		100,000	1,000,000	
WDD3	PAH	Benzo(a)anthracene	4.8	μg/kg	U	4,8		1.000	11,000	
WDD3	PAH	Benzo(a)pyrene	4.8	μg/kg	U	4.8		1,000	1,100	
WDD3	PAH	Benzo(b)fluoranthene	4.8	μg/kg μg/kg	Ü	4.8	The property of the property of the party.	1,000	11,000	
WDD3	PAH	Benzo(ghi)perylene	4.8	μg/kg μg/kg	U	4.8		100,000	1,000,000	
WDD3	PAH	Benzo(k)fluoranthene	2.4	μg/kg μg/kg	U	2.4		800,000	110,000	
WDD3	PAH	Chrysene	4.8		U	4.8		1,000	110,000	
WDD3	PAH	Dibenzo(a,h)anthracene	4.8	μg/kg	U	4.8		330	1,100	
		1 11		μg/kg	U		200 2018 1000		1,000,000	
WDD3	PAH	Fluoranthene	4.8	μg/kg	_	4.8	62.55	100,000		20.000
WDD3	PAH	Fluorenc	48.0	μg/kg	U	48.0		30,000	1,000,000	
WDD3	PAH	Indeno(1,2,3-cd)pyrene	4.8	μg/kg	U	4.8		500	11,000	
WDD3	PAH	Naphthalene	48.0	μg/kg	U	48,0		12,000	1,000,000	
WDD3	PAH	Phenanthrene	48.0	μg/kg	U	48.0		100,000	1,000,000	
WDD3	PAH	Pyrene	4.8	μg/kg	U	.4.8		100,000	1,000,000	
WDD3	PCB	Aroclor-1016	95,6	μg/kg	U	31.8	80000000	100	25,000	
WDD3	PCB	Aroclor-1221	95.6	μg/kg	U	31.8	\$100 M	100	25,000	
WDD3	PCB	Aroclor-1232	95.6	μg/kg	U	31,8	186.54166	100	25,000	
WDD3	PCB	Aroclor-1242	95,6	μg/kg	U	31,8	18010184000	100	25,000	
WDD3	PCB	Aroclor-1248	95.6	μg/kg	U	31.8	186580.551	100	25,000	
WDD3	PCB	Aroclor-1254	95.6	μg/kg	U	31.8		100	25,000	
WDD3	PCB	Aroclor-1260	95.6	μg/kg	U	31,8		100	25,000	
WDD3	Pesticide	4,4'-DDD	76.3	μg/kg	U	76.3		3,3	180,000	
WDD3	Pesticide	4,4'-DDE	76.3	μg/kg	U	76.3		3.3	120,000	
WDD3	Pesticide	4,4'-DDT	76.3	μg/kg	U	76.3		3.3	94,000	
WDD3	Pesticide	Aldrin	38.2	μg/kg	U	38,2		5	1,400	
WDD3	Pesticide	alpha-BHC	38.2	μg/kg	U	38.2		20	6,800	
WDD3	Pesticide	alpha-Chlordane	38,2	μg/kg	U	38.2	430,000,000	94	47,000	
WDD3	Pesticide	beta-BHC	38.2	με/kg	U	38,2		36	14,000	
WDD3	Pesticide	delta-BHC	38.2	μg/kg	U	38.2		40	1,000,000	
WDD3	Pesticide	Dieldrin	76.3	μg/kg	U	76.3		5	2,800	
WDD3	Pesticide	Endosulfan I	38,2	μg/kg	U	38.2	460 (0.45)	2,400 ^d	920,000 ^d	
WDD3	Pesticide	Endosulfan II	76.3	μg/kg	IJ.	76,3		2,400 ^d	920,000 ^d	100
WDD3	Pesticide	Endosulfan sulfate	76.3	μg/kg	U .	76.3		2,400 ^d	920,000 ^d	
WDD3	Pesticide	Endrin	76.3	μg/kg μg/kg	IJ	76.3	200.000000	14	410,000	
WDD3	Pesticide	Endrin aldehyde	76.3	µg/kg µg/kg	U	76.3		NE.	410,000 NE	
WDD3	Pesticide	Endrin ketone	76.3	µg/kg µg/kg	υ	76.3		NE	NE	
WDD3	Pesticide	gamma-BHC (Lindane)	38.2	µg/kg	U	38.2		100	23,000	
WDD3	Pesticide	gamma-Chlordane	38.2	μg/kg	U	38.2		NE	NE	
WDD3	Pesticide	Heptachior	38.2	μg/kg	U	38.2		42	29,000	
WDD3	Pesticide	Heptachlor epoxide	38.2	μg/kg	Ų	38.2		NE	NE	
WDD3	Pesticide	Methoxychlor	382	μg/kg	U	382		NE	NE	
WDD3	l'esticide	Toxaphene	1910	μg/kg	U	1910		NE	NE	

SEDIMENT					ALIFIER*	stection or Reporting mit*	diological certainty (\pm)	State- Unrestricted	State- Restricted -Industrial** E Cleanup	teria**
	PARAMETER*	ANALYTE	RESULT	UNITS*	δΩ	in Set	Rad	J.se.	¥ % [Ö	ă.

* SEDIMENT LOCATION

SWSD009 - Site Background

SW-DUP (SWSD011) - Field Duplicate of surface water and sediment location SWSD011

*PARAMETER

VOC - Volatile Organic Compound PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

*UNITS

pCi/g - picocuries per gram

mg/kg - milligrams per kilograms (ppm) μg/kg - micrograms per kilogram (ppb)

*QUALIFIER

Validated Qualifier: J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

*Detection or Reporting Limit

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Mctal) - Method Detection Limit

Organic (VOC, PAH, PCB and Pesticides) - Reporting Limit (gray shading)

** Values are provided for comparative purposes only. ARARs and media-specific cleanup goals will be evaluated independently and presented in future CERCLA decision documents that will be available for public comment.

**US Dept of Energy;

DOE above-background surface soil cleanup criteria, averaged over topmost 6 in. (15 cm) of soil. Because there are no standards for radioactive constituents in sediment, these soil values (without background

**New York State;

6 NYCRR PART 375

NY State-Unrestricted Use Soil Cleanup Objectives Table 375-6.8(a)

NY State- Restricted Use Soil Cleanup Objectives Table 375-6.8(b) -Industrial

NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228 concentrations
- b. Sum of uranium isotope concentrations (pCi/g).
- c, Total Mercury
- d. Sum of endosulfan I, endosulfan II, and endosulfan sulfate

SEDIMENT LOCATION* Sample Date: 10/29/2	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD009	Radiological	Radium-226	1,180	SECTION	0,501	pCi/g	0.513	NE	NE	5ª
SWSD009	Radiological	Radium-228	1.870		0.648	pCi/g	0.563	NE NE	NH.	5 ^a
		Total Radium ^a	3.050	Г		pCi/g	3.000	1		5ª
SWSD009	Radiological	Thorium-228	0.633		0.348	pCi/g	0.348	NE	NE	5
SWSD009	Radiological	Thorium-230	0,982	J	0,221	pCi/g	0,407	NE	NE	. 5
SWSD009	Radiological	Thorium-232	1.060	_	0.196	pCi/g	0.423	NE	NE	5
SWSD009	Radiological	Uranium-234	1,100	_	0,052	pCi/g	0,329	NE	NE	90 ^b
SWSD009 SWSD009	Radiological	Uranium-235 Uranium-238	0.071		0.064	pCi/g	0.082	NE NE	NE NE	90 ^b
3 1 3 2 0 0 9	Radiological	Total Uranium b	1,130 2,301	\vdash	0.111	pCi/g pCi/g	0.335	NB	NO.	90 ^b
SWSD009	Metal	Aluminum	11500	Н	2.22	mg/kg		NB	NB	70
SWSD009	Metal	Antimony	2.9		0.662	mg/kg		NE	NE	
SWSD009	Metal	Arsenic	4.8		0,665	mg/kg		13	16	
SWSD009	Metal	Barium	93.6		0.222	mg/kg		350	10,000	
SWSD009	Metal	Beryllium	0,62	ļ	0.0443	mg/kg		7	2,700	
SWSD009 SWSD009	Metal Metal	Boron	18.8	\vdash	0.0443	mg/kg		NE 3	NE 60	
SWSD009	Metal	Cadmium Calcium	0.8 31900		0.0443	mg/kg mg/kg		NE	60 NE	
SWSD009	Metal	Chromium	31.1		0.443	mg/kg		NE	NE.	
SWSD009	Mctal	Cobalt	8.4		0.0443	mg/kg		NE	NE	
SWSD009	Metal	Соррег	79.6	J	0,0886	mg/kg		50	10,000	
SWSD009	Metal	Iron	18100		4.43	mg/kg		NB	NE	
SWSD009	Metal	Lead	36.8		0.222	mg/kg		63	3,900	
SWSD009 SWSD009	Metal Metal	Lithium Magnesium	21 10200	\vdash	0.886 2.22	mg/kg		NE NE	NE NE	
SWSD009	Metal	Manganese	387		0.443	mg/kg mg/kg		1,600	10,000	
SWSD009	Metal	Мегешту	190		8,26	μg/kg		180°	5700°	
SWSD009	Metal	Nickel	20.8		0.222	mg/kg		30	10,000	
SWSD009	Metal	Potassium	2550	J.	35,4	mg/kg		NE	NE	
SWSD009	Metal	Selenium	1.11	υ	1.11	mg/kg		4	6,800	
SWSD009	Metal	Silver		U	0.213	mg/kg		2	6,800	
SWSD009 SWSD009	Metal Metal	Sodium Thallium	425 0.18		35,4 0.0886	mg/kg		NE NE	NE NE	
SWSD009	Metal	Vanadium	26.4	J	0.0886	mg/kg mg/kg		NE NE	NE NE	
SWSD009	Metal	Zinc	217		0.886	mg/kg		109	10,000	
SWSD009	VOC	1,1,1-Trichloroethane	2.22	U	2.22	μg/kg		680	1,000,000	
SWSD009	VOC	1,1,2,2-Tetrachioroethane		U	2.22	μg/kg		NE	NE	
SWSD009	VOC	1,1,2-Trichloroethanc	2,22		2,22	μg/kg	and a	NE	NE	
SWSD009	VOC	1,1-Dichloroethane	2.22	U	2,22	µg/kg	8.00	270	480,000	
SWSD009 SWSD009	VOC VOC	1,1-Dichloroethylene 1,2-Dichloroethane	2.22	U	2,22 2,22	μg/kg μg/kg		330 20	1,000,000 60,000	
SWSD009	voc	1,2-Dichleropropane	2.22	I)	2.22	μg/kg		NE	00,000 NE	
SWSD009	VOC	2-Butanone	11,1		11.1	μg/kg		120	1,000,000	100
SWSD009	VOC	2-Нехаполе	11.1	U	11.1	μg/kg		NE	NE	
SWSD009	VOC	4-Methyl-2-pentanone	11.1		11,1	μg/kg		NE	NE	300000
SWSD009	VOC	Acetone	11,1	_	11.1	μg/kg		50	1,000,000	raykasan kasa
SWSD009 SWSD009	VOC VOC	Benzene Bromodichloromethane	2.22 2.22	$\overline{}$	2.22 2.22	μg/kg	100 May 1	60 NE	89,000 NE	0.0000
SWSD009		Bromoform	2,22		2.22	μυ/kg μg/kg		NE NE	NE NE	200
SWSD009		Bromomethane		Ü	2.22	μg/kg		NE	NE	
SWSD009	VOC	Carbon disulfide	11.1	$\overline{}$	11.1	μg/kg	(F) (6) (6)	NE	NE	je gjarden
SWSD009	VOC	Carbon tetrachloride	2,22	U	2.22	μg/kg		760	44,000	
SWSD009		Chlorobenzene	2.22	_	2.22	µg/kg		1,100	1,000,000	
SWSD009		Chloroethane		U	2,22	μg/kg	Kingan da	NE	NE	
SWSD009 SWSD009	VOC VOC	Chloroform Chloromethane		U U	2.22	μg/kg		370 NE	700,000 NE	
SWSD009		cis-1,2-Dichloroethylene		U	2,22 2,22	μg/kg μg/kg		250	1,000,000	
SWSD009	voc	cis-1,3-Dichloropropylene		U	2.22	μg/kg μg/kg	50 SA-50	NE NE	1,000,000 NE	
SWSD009		Ethylbenzene .	2.22		2,22	μg/kg		1,000	780,000	
SWSD009	VOC	Methylene chloride	22,2		22.2	µg/kg		50	1,000,000	
SWSD009		Styrene		U	2,22	μg/kg	de la constitución	NE	NE	
SWSD009		Tetrachioroethylene	2.22		2,22	ng/kg		1,300	300,000	
SWSD009		Toluene		U	2.22	μg/kg	Singasia	700	1,000,000	the state of
SWSD009 SWSD009	***************************************	trans-1,2-Dichloroethylene trans-1,3-Dichloropropylene	2.22	U I	2.22 2.22	μg/kg		190 NE	1,000,000 NE	
SWSD009		Trichloroethylene	2.22		2,22	μg/kg μg/kg	gesenti dist	NE 470	400,000	ANNOPASIÁS SALESTAS
SWSD009		Vinyl chloride		U	2.22	μg/kg μg/kg		20	27,000	
SWSD009		Xylenes (total)	2,22	U	2.22	μg/kg		260	1,000,000	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD009	PAH	Accnaphthene	147	ŭ	147	μg/kg	A COLUMN	20,000	1,000,000	
SWSD009	PAH	Acenaphthylene	147	Ū	147	με/kg	334 632	100,000	1,000,000	49.00
SWSD009	PAH	Anthracene	79.8	ī	147	µg/kg	198	100,000	1,000,000	
SWSD009	PAH	Benzo(a)anthracene	463		14.7	μg/kg		1,000	11,000	
SWSD009	PAH	Венго(а)рутеле	477		14.7	μμ/kg		1,000	1,100	
SWSD009	PAII	Benzo(b)fluoranthene	499	1	14.7	μg/kg	Name of the last	1,000	11,000	160
SWSD009	PAH	Benzo(ghi)perylene	207		14.7	μg/kg	200	100,000	1,000,000	
SWSD009	РАН	Benzo(k)fluoranthene	7,36	τī	7,36	μg/kg		800,000	110,000	
SWSD009	PAH	Chrysene	352	-	14.7	μg/kg		1,000	110,000	
SWSD009	PAH	Dibenzo(a,h)anthracene		u	14.7	μg/kg		330	1,100	
SWSD009	PAH	Fluoranthene	572	-	14.7	μg/kg		100,000	1,000,000	
SWSD009	PAII	Fluorene	147	11	147	μg/kg		30,000	1,000,000	
SWSD009	PAH	Indeno(1,2,3-ed)pyrene	14.7		14.7	µg/kg		500	11,000	
SWSD009	PAH	Naphthalene		U	147	μg/kg		12,000	1,000,000	
SWSD009	PAII	Phenanthrene	271	-	147	μg/kg	200000000000000000000000000000000000000	100,000	1,000,000	
SWSD009	PAH	Pyrene	620		14.7	μg/kg	10.000000000000000000000000000000000000	100,000	1,000,000	100000000000000000000000000000000000000
SWSD009	PCB	Aroclor-1016	36.7	ΕĪ	12.2	μg/kg		100,000	25,000	0.000
SWSD009	PCB	Arocior-1221	36.7		12.2	μg/kg μg/kg		100	25,000	
SWSD009	PCB	Aroclor-1232	36.7	-	12.2			100	25,000	
SWSD009	PCB	Arocior-1232 Arocior-1242	36.7	_	12.2	μg/kg μμ/kg		100	25,000	
SWSD009	PCB	Aroclor-1248	29,6		12.2	,		100	25,000	
SWSD009	РСВ	Aroclor-1254		-	12.2	μg/kg		100		
SWSD009	PCB	Aroclor-1254 Aroclor-1260	23.5 36.7	7.7	12.2	μg/kg		100	25,000 25,000	
	Pesticide			U	29.4	μg/kg		3.3		
SWSD009		4,4'-DDD		~	400004000000000000000000000000000000000	μg/kg		3.3	180,000	
SWSD009	Pesticide	4,4'-DDE	1	U	29,4	μg/kg			120,000	
SWSD009		4,4'-DD'I'		U_	29,4	μg/kg		3.3		
SWSD009	Pesticide	Aldrin	14.7	_	14.7	μg/kg	Inches Programme	5	1,400	
SWSD009		alpha-BHC	14.7	\rightarrow	14.7	μg/kg	Day (State of Control	20	6,800	
SWSD009		alpha-Chlordane	14.7		14.7	μg/kg		94	47,000	
SWSD009		beta-BHC	14.7	_	14.7	μg/kg		36	14,000	
SWSD009		delta-BHC	·	U	14.7	μg/kg		40	1,000,000	
SWSD009		Dieldrin	29,4		29,4	μg/kg		5	2,800	
SWSD009		Endosulfan I	14.7		14.7	μg/kg		2,400 ^d	920,000°	
SWSD009	Pesticide	Endosulfan II	29.4	_	29.4	μg/kg		2,400 ^d	920,000 ^d	
SWSD009	Pesticide	Endosulfan sulfate	29,4		29.4	μg/kg		2,400 ^d	920,000 ^d	
SWSD009		Endrin	29.4	$\overline{}$	29.4	μg/kg		14	410,000	
SWSD009		Endrin aldehyde	29.4	_	29.4	μg/kg		NE	NE	
SWSD009		Endrin ketone	29,4		29,4	μg/kg		NE	NE	1075611500
SWSD009		gamma-BHC (Lindane)	14.7	-	14,7	μg/kg		100	23,000	
WSD009	Pesticide	gamma-Chlordane	14,7	U	14.7	µg/kg		NE	NE	200714
SWSD009	Pesticide	Heptachlor	14.7	u]	14,7	μg/kg		42	29,000	
SWSD009	Pesticide	Heptachlor epoxide	14.7	υ	14.7	μg/kg		NE	NE	
SWSD009	Pesticide	Methoxychlor	147	U	147	μg/kg		NE	NE	7.98
WSD009	Pesticido	Toxaphene	734	υĪ	734	μg/kg		NE	NE	

SEDIMENT LOCATION* Sample Date: 10/30,	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD021	Radiological	Radium-226	1,000		0,427	pCi/g	0,442	NE	NE	. 5ª
SWSD021	Radiological	Radium-228	1.030	Т	0.499	pCi/g	0.408	NB.	NE NE	
		Total Radium ^a	2.030			pCi/g				5ª
SWSD021	Radiological	Thorium-228	1.690		0.360	pCi/g	0.575	NE	NH	5
SWSD021	Radiological	Thorium-230	1,160	<u> </u>	0.132	pCi/g	0,430	NE	NE	=
SWSD021	Radiological	Thorium-232	1.250	⊢	0.132	pCi/g	0.450	NE	NE	5 90 ⁵
SWSD021 SWSD021	Radiological Radiological	Uranium-234 Uranium-235	1,170 0,081	-	0.101 0.697	pCi/g pCi/g	0,329	NE NE	NE NE	90 ^b
SWSD021	Radiological	Uranium-238	1.190	<u> </u>	0.101	pCi/g	0.332	NE NE	NE NE	90 ^b
J. Coboo	Addiological	Total Uranium h	2,360		0.101	pCi/g	0.552	1113	112	90 ^b
SWSD021	Metal	Aluminum	19000	j	8.62	mg/kg		NE	NE	
SWSD021	Metal	Antimony	1.1		0.537	mg/kg		NE	NE	
SWSD021	Metal	Arsenie	3.3		0.517	mg/kg		13	16	
SWSD021	Metal	Barium	119	\vdash	0.172	mg/kg		350	10,000	
SWSD021 SWSD021	Metal Metal	Beryllium	0,86 15.8	\vdash	0.0345	mg/kg		7 NE	2,700 NE	
SWSD021 SWSD021	Metal Metal	Boron Cadmium	0.27	1	1.38 0.0345	mg/kg mg/kg		NE 3	60	
SWSD021	Metal	Calcium	37000		51.7	mg/kg		NE	NE	0.0000014600
SWSD021	Metal	Chromium	47.7		0.345	mg/kg		NE	NE	
SWSD021	Metal	Cobalt	11.7		0,0345	mg/kg	SUDDENIES IN STATE	NE	NE	1 45 40
SWSD021	Metal	Copper	28.9		0.0689	mg/kg		50	10,000	
SWSD021	Metal	Iron	26400		17.2	mg/kg		NE	NE	
SWSD021 SWSD021	Metal	Lead Lithium	10.5 30,6	J	0.172	mg/kg		63- NE	3,900 NE	
SWSD021	Metal Metal	Magnesium	10000	1	0,689 1.72	mg/kg mg/kg		NE NE	NE NE	
SWSD021	Metal	Manganese	507	ř	1.72	mg/kg		1,600	10,000	5.06
SWSD021	Metal	Mercury	26.8		6.55	µg/kg		180°	5700°	
SWSD021	Metal	Nickel	27,4		0.172	mg/kg		30	10,000	0.000
SWSD021	Metal	Potassium	4280		27.6	mg/kg		NE	NE	
SWSD021	Metal	Selenium	0.862	U	0.862	mg/kg		4	6,800	
SWSD021	Metal	Silver	0,173		0,173	mg/kg	160	2	6,800	
SWSD021 SWSD021	Metal Metal	Sodium Thallium	190		27.6 0.0689	nig/kg mg/kg		NE NB	NE NE	
SWSD021	Metal	Vanadium	34,1]	3,45	mg/kg		NE NE	NE.	
SWSD021	Metal	Zine	68		0.689	mg/kg		109	10,000	
SWSD021	VOC	1,1,1-Trichloroethane	1.79		1,79	ug/kg		680	1,000,000	10000
SWSD021	voc	1,1,2,2-Tetrachloroethane			1.79	μg/kg		NE	NE	
SWSD021	VOC	1,1,2-Trichloroethane		U	1,79	μg/kg		NE oge	NE 100 000	
SWSD021 SWSD021	VOC VOC	1,1-Dichloroethaue 1,1-Dichloroethylene	1.79 1.79	U U	1.79	μg/kg μg/kg		270 330	480,000 1,000,000	
SWSD021	voc	1,2-Dichloroethane		υ	1.79	μg/kg		20	60,000	
SWSD021	VOC	1,2-Dichloropropane	1.79	U	1.79			NE	NB	
SWSD021	VOC	2-Butanone	8,93	U	8.93	μg/kg		120	1,000,000	50.00
SWSD021	VOC	2-Hexanone		U	8.93	hrk/kg		NE	NE	
SWSD021 SWSD021	VOC	4-Methyl-2-ревінпопе	8,93		8.93	μg/kg		NE 50	1,000,000	100000
SWSD021	VOC VOC	Acetone Benzene	8,93 1.79		8,93 1.79	μg/kg μg/kg	9100 Sept	50 60	89,000	10000000
SWSD021	voc	Bromodichloromethane	1.79		1.79	μg/kg	137 (120)	NE	02,000 NE	U1(2) (124)
SWSD021	VOC	Bromoform	1.79		1,79	μg/kg	SUATILITIES	NE	NE	120010
SWSD021	VOC	Bromomethane	1.79		1,79	μg/kg	15.60.51	NE	NE	
SWSD021	VOC	Carbon disulfide	8.93	$\overline{}$	8.93	μg/kg		NE	NE	
SWSD021	VOC	Carbon tetrachloride	1.79		1.79	μg/kg		760	44,000	
SWSD021 SWSD021	VOC VOC	Chiorobenzene Chioroethane	1.79 1.79		1.79 1.79	μg/kg μg/kg		1,100 NE	1,000,000 NE	15 (35 (16 pc)
SWSD021	voc	Chloroform	1.79		1.79	μg/kg μg/kg		370	700,000	3.012.199
SWSD021	VOC	Chloromethane	1.79	_	1.79	μg/kg		NE	NE.	
SWSD021	VOC	cis-1,2-Dichloroethylenc	1.79	U	1,79	μg/kg		250	1,000,000	
SWSD021	VOC	cis-1,3-Dichloropropylene	1.79		1.79	μg/kg		NE	NE	8-88-88
SWSD021		Ethylbenzene	1,79		1.79	µg/kg ^		1,000	780,000	
SWSD021	VOC VOC	Methylene chloride	17.9 1.79		17.9	μg/kg		50	1,000,000	
SWSD021 SWSD021	VOC	Styrene Tetrachloroethylene	1.79		1.79 1.79	μg/kg μg/kg		NE 1,300	NB 300,000	15 (15)
SWSD021		Toluene	1.79		1,79	μg/kg μg/kg		700	1,000,000	2010S125
SWSD021		trans-1,2-Dichloroethylene	1.79	$\overline{}$	1.79	μg/kg		190	1,000,000	SILIGIS ISS
SWSD021		trans-1,3-Dichloropropylene	1.79	U	1,79	μg/kg		NE	NE	Sagaria.
SWSD021		Trichloroethylene	1.79	$\overline{}$	1.79	μg/kg		470	400,000	e de la composição
SWSD021	+ + +	Vinyl chloride	1.79		1.79	μg/kg		260	1,000,000	
SWSD021	VOC	Xylenes (totai)	1.79	U	1.79	μg/kg		20,000	1,000,000	

SEDIMENT			DESCRIPTION	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION* SWSD021	PARAMETER*	Acenaphthene	RESULTS 29.7	0	29.7			100,000	1,000,000	AU
SWSD021	PAH PAH	Accnaphthylene	29.7	U	29.7	μg/kg μg/kg		100,000	1,000,000	
SWSD021	PAH	Anthracene	29.7	u	29.7	ng/kg	5 33 33 5	1,000	11,000	
SWSD021	PAH	Benzo(a)anthracene	2,97	U	2.97	нд/кд нд/кд		1,000	1,100	
SWSD021	PAH	Benzo(a)pyrene		U	2.97	µg/kg		1,000	11,000	
SWSD021	PAH	Benzo(b)fluoranthene		U	2.97	иg/kg		100,000	1,000,000	
SWSD021	PAH	Benzo(ghi)perylene	2.97	U	2.97	µц/кд пц/кд		800,000	110,000	
SWSD021	PAH	Benzo(k)fluoranthene	1.49	_	1.49	ид/kg		1,000	110,000	
SWSD021	PAH	Chrysene	9.86	_	2.97	ug/kg		330	1,100	
SWSD021	PAH	Dibenzo(a,h)anthracene		U	2.97			100,000	1,000,000	
SWSD021	PAH	Fluoranthene	21.8	<u>-</u>	2.97	µg/kg		30,000	1,000,000	-
SWSD021	PAH	Fluorene	29.7	f I	29.7	μg/kg ug/kg		50,000	11,000	
SWSD021	PAH			U	2.97			12,000	1,000,000	
SWSD021		Indeno(1,2,3-cd)pyrene Naphthalene		U .	29.7	μg/kg μg/kg		100,000	1,000,000	
SWSD021	РАН	Phenanthrene		Ţ.	29,7			100,000	1,000,000	
SWSD021	PAH		13.9	J	2,97	μg/kg		100,000	25,000	100000000000000000000000000000000000000
	PCB	Pyrene	19.7	7.1	1403800224240011694	µg/kg			25,000	
SWSD021		Aroclor-1016	29.7	$\overline{}$	9.9	μg/kg		100		10000000
SWSD021	РСВ	Aroclor-1221	29.7	-	9.9	µg/kg	NIANTAL PROPERTY.	100	25,000	
SWSD021	PCB	Aroclor-1232		U	9.9	µg/kg	100	100	25,000	100
SWSD021	PCB	Aroclor-1242	29.7	_	9.9	μg/kg	H 150 155 0	100	25,000	200
SWSD021	PCB	Aroclor-1248		U	9.9	µg/kg	CHARLEST CO.	100	25,000	100
SWSD021	PCB	Aroclor-1254	29.7		9.9	μg/kg		100	25,000	
SWSD021	PCB	Aroclor-1260	29.7	_	9.9	μg/kg		3.3	180,000	
SWSD021		4,4°-DDD		U	23,7	μg/kg		3.3	120,000	
SWSD021	Pesticide	4,4'-DDE		U	23.7	μg/kg		3.3	94,000	
SWSD021		4,4'-DDT	23.7	U	23,7	μg/kg		5	1,400	
SWSD021	Pesticide	Aldrin		U	11.8	μg/kg		20	6,800	
SWSD021		alpha-BHC	11,8		11.8	µg/kg		94	47,000	
SWSD021		alpha-Chlordane	11.8		11.8	μg/kg		36	14,000	
SWSD021		beta-BHC	11.8	_	11.8	μg/kg		40	1,000,000	
SWSD021		delta-BHC		U	11.8	μg/kg		5	2,800	
SWSD021	Pesticide	Dieldrin	23.7	U	23.7	μg/kg		2,400 ^d	920,000 ^d	
SWSD021	Pesticide	Endosulfan I	11.8	U	11.8	μg/kg		2,400 ^d	920,000 ^d	
SWSD021	Pesticide	Endosulfan II	23.7	U	23.7	μg/kg		2,400 ^d	920,000 ^d	100
SWSD021	Pesticide	Endosulfan sulfate	23.7	Ū	23.7	μg/kg		14	410,000	
SWSD021	Pesticide	Endris	23.7	υ	23.7	μg/kg		NE	NE	
SWSD021	Pesticide	Endrin aldehyde	23.7	U	23.7	μg/kg	in the last	NE	NE	
SWSD021	Pesticide	Endrin ketone	23.7	υ	23,7	μg/kg	F 682-9872	100	23,000	1000
SWSD021		gamma-BHC (Lindane)	11.8		11.8	µg/kg		NE	NE	0.00000
SWSD021		gamma-Chlordane	11.8		11.8	дg/kg	A SHEW	42	29,000	YEVAL
SWSD021		Heptachlor	11.8		11.8	ng/kg		NE	NE	
SWSD021		Heptachlor epoxide	11.8		11.8	μg/kg		NE	NE	
SWSD021		Methoxychior		U	118	μg/kg	3230 3300	NE	NE	12000
SWSD021		Toxaphene	592		592	μg/kg	2.000	NE	NE.	E SAME

SEDIMENT	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	*SIND	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NX State-Restricted Cse -Industrial**	DOE Cleanup Criteria**
Sample Date: 10/29/2		JANALITE.	KESULIS	10				ZD		A O
SWSD010	Radiological	Radium-226	0.948	<u> </u>	0.547	pCi/g	0.487	NE	NE	5ª
SWSD010	Radiological	Radium-228 Total Radium	0,915 1.863	H	0,668	pCi/g	0,482	NE	NE	5°
SWSD010	Radiological	Thorium-228	1,260		0.328	pCi/g pCi/g	0,482	NE	NE	5
SWSD010	Radiological	Thorium-230	1.310		0.242	pCi/g	0.477	NE	NE	5
SWSD010	Radiological	Thorium-232	1,190		0.188	pCi/g	0.445	NE	NE	5
SWSD010 SWSD010	Radiological	Uranium-234 Uranium-235	2.960		0.139	pCi/g	0.677 0.120	NE NE	NE NE	90 ^b
SWSD010	Radiological Radiological	Uranium-238	0.111 2,760		0.133 0.107	pCi/g pCi/g	0,120	NE NE	NE NE	90
01100010	Rudiological	Total Uranium b	5.831	<u> </u>	0,10,	pCi/g				90 ^b
SWSD010	Metal	Aluminum	13500		3,77	mg/kg		NE	NE	
SWSD010	Metal	Antimony	2.7	Ĵ	1.15	mg/kg		NE	NE	
SWSD010 SWSD010	Metal Metal	Arsenic Barium	5.6 98.7		1.13 0,377	mg/kg mg/kg	Section and the section of	13 350	16 10,000	
SWSD010	Metal	Beryllium	0.71	Н	0.0754	mg/kg		7	2,700	
SWSD010	Metal	Boron	27.1		3.02	mg/kg		NE	NE	
SWSD010 SWSD010	Metal	Cadmium	0,51	J	0,0754	mg/kg		3	60	
SWSD010 SWSD010	Metal Metal	Calcium Chromium	18600 46.5		22.6 0.754	mg/kg mg/kg		NE NE	NE NE	
SWSD010	Metal	Cobalt	9.2		0.0754	nig/kg	500500000	NE	NE NE	
SWSD010	Metal	Copper	124	J	0.147	mg/kg	90.00	50	10,000	
SWSD010	Metal	kon	19000		7.54	mg/kg		NE	NE	
SWSD010 SWSD010	Metal Metal	Lead Lithium	46.6 23.3		0.377 1.51	mg/kg mg/kg		63 NE	3,900 NE	
SWSD010	Metal	Magnesium	9480		3,77	mg/kg		NE	NE NE	
SWSD010	Metal	Manganese	287		0.754	mg/kg		1,600	10,000	
SWSD010	Metal	Mercury	313		14.5	μg/kg		180°	5700°	
SWSD010 SWSD010	Metal	Nickel Potossium	23.6 3720		0.377	mg/kg		30 NE	10,000	
SWSD010	Metal Metal	Potassium Selenium	1.89	U	60.4 1,89	mg/kg mg/kg		NE 4	NE 6,800	
SWSD010	Metal	Silver	0.372	Ū	0.372	mg/kg		2	6,800	
SWSD010	Metal	Sodium	591		60.4	mg/kg		NE	NE	
SWSD010 SWSD010	Metal Metal	Thallium Vanadium	0,22 28.1	J	0.151 1.51	mg/kg		NE NE	NE NE	
SWSD010	Metal	Zinc	236		1.51	mg/kg mg/kg		109	10,000	
SWSD010	VOC	1,1,1-Trichloroethane		U	3,82	μg/kg		680	1,000,000	
SWSD010	VOC	1,1,2,2-Tetrachloroethane		υ	3,82	μg/kg		NE	NE	1,30,100
SWSD010 SWSD010		1,1,2-Trichforoethane 1,1-Dichloroethane		U	3,82	μg/kg		NE 270	NE 480,000	
SWSD010		1,1-Dichloroethylene		U	3.82 3.82	µg/kg µg/kg		270 330	1,000,000	0.51.46
SWSD010	VOC	1,2-Dichloroethane		U	3.82	μg/kg		20	60,000	
SWSD010	VOC	1,2-Dichleropropanc	3,82	_	3.82	μg/kg		NE	NE	
SWSD010 SWSD010	VOC VOC	2-Butanone	19.1 19.1	U U	19.1 19.1	μg/kg		120 NE	1,000,000 NE	
SWSD010	VOC	2-Hexanone 4-Methyl-2-pentanone		Ü	19.1	μg/kg μg/kg		NE NE	NE NE	
SWSD010	VOC	Acetone		Ŭ	19.1	μg/kg		50	1,000,000	
SWSD010		Benzene		U	3,82	μg/kg		60	89,000	
SWSD010		Bromodichloromethane	3.82	_	3.82	μg/kg		NE NE	NE NE	
SWSD010 SWSD010		Bromoform Bromomethane	3.82 3,82		3.82 3.82	μg/kg μg/kg		NE NE	NE NE	
SWSD010		Carbon disulfide		Ū	19.1	μg/kg		NE	NE	
SWSD010		Carbon tetrachloride	3.82		3,82	µg/kg		760	44,000	1000000000
SWSD010		Chlorobenzene		U	3,82	μg/kg		1,100	1,000,000	ESTERNAL.
SWSD010 SWSD010		Chlorocthane Chloroform		U U	3.82 3.82	μg/kg μg/kg		NE 370	700,000	4858644
SWSD010		Chloromethane		U	3.82	μg/kg μg/kg		NE	750,500 NE	
SWSD010		cis-1,2-Dichtoroethylene		U	3.82	μg/kg		250	1,000,000	ASSIS:
SWSD010		cis-1,3-Dichloropropylene	3.82		3.82	μg/kg		NE 1 000	NE 790 000	
SWSD010 SWSD010		Ethylbenzene Methylene chloride	3,82 38,2	U	3,82 38,2	μg/kg μg/kg		1,000	780,000	
SWSD010		Styrene	3,82	_	3,82	μg/kg μg/kg		NE	1,000,000 NE	
SWSD010	VOC .	Tetrachlorocthylenc	3.82	U	3.82	μg/kg	6.75.95	1,300	300,000	1.55
		Toluene	3.82		3,82	μg/kg		700	1,000,000	
		trans-1,2-Dichloroethylene trans-1,3-Dichloropropylene	3,82		3.82 3.82	μg/kg	500,040	190 NE	1,000,000 NE	
		trans-1,3-Dichloropropylene Trichloroethylene	3.82	_	3,82	μg/kg μg/kg	00000000	470	400,000	10000000
		Vinyl chloride	3,82	- 17	3.82	μg/kg		20	27,000	energy of the first
SWSD010	VOC	Xylenes (total)	3.82	U	3,82	µg/kg		260	1,000,000	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	CNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD010	PAII	Acenaphthene	63,6	U	63.6	μg/kg		20,000	1,000,000	
SWSD010	PAH	Acenaphthylene	63.6	U	63,6	μg/kg		100,000	1,000,000	
SWSD010	PAH	Anthracene	63.6	U	63.6	μg/kg		100,000	1,000,000	
SWSD010	PAH	Benzo(a)anthracene	117		6.36	μg/kg		1,000	11,000	
SWSD010	PAH	Benzo(a)pyrene	129		6.36	μg/kg		1,000	1,100	
SWSD010	PAH	Benzo(b)fluoranthene	160		6.36	μg/kg		1,000	11,000	
SWSD010	PAH	Benzo(ghi)perylene	88.7	J	6,36	μg/kg		100,000	1,000,000	100000
SWSD010	PAH	Benzo(k)fluoranthene	71.5		3,18	μg/kg	100	800,000	110,000	
SWSD010	PAH	Chrysene	94.7		6.36	μg/kg		1,000	110,000	
SWSD010	PAH	Dibenzo(a,h)anthracene	6,36	U	6.36	μg/kg	100	330	1,100	
SWSD010	РАН	Fluoranthene	170		6.36	μg/kg		100,000	1,000,000	
SWSD010	PAH	Fluorene	63.6	U.	63.6	μg/kg	1132.024	30,000	1,000,000	100
SWSD010	PAH	Indeno(1,2,3-cd)pyrene	91.4	J	6.36	μg/kg		500	11,000	
SWSD010	PAH	Naphthalene	63.6	U	63.6	μg/kg		12,000	1,000,000	
SWSD010	PAH	Phenanthrene	86.8		63.6	μg/kg		100,000	1,000,000	
SWSD010	PAH	Ругеле	172		6.36	μg/kg	100	100,000	1,000,000	
SWSD010	РСВ	Aroclor-1016	63,4	IJ	21,1	μg/kg		100	25,000	
SWSD010	РСВ	Aroclor-1221	63,4		21.1	μg/kg		100	25,000	
SWSD010	РСВ	Aroclor-1232		Ū	21.1	μg/kg		100	25,000	
SWSD010 .	РСВ	Aroclor-1242	63.4	Ū	21.1	μg/kg		100	25,000	
SWSD010	PCB	Aroclor-I248	42.1	<u>.</u>	21.1	μg/kg		100	25,000	
SWSD010	РСВ	Areclor-1254	40.2	J	21.1	μg/kg		100	25,000	
SWSD010	PCB	Aroclor-1260	28.5	J	21.1	μg/kg		100	25,000	
SWSD010	Pesticide	4,4'-DDD	50,6	_	50.6	μg/kg		3,3	180,000	
SWSD010	Pesticide	4,4'-DDE	50.6		50,6	μg/kg		3.3	120,000	
SWSD010	Pesticide	4.4'-DDT		Ù	50,6	μg/kg		3,3	94,000	
SWSD010	Pesticide	Aldrin	25,3	_	25.3	μg/kg		5	1,400	
SWSD010	Pesticide	alpha-BHC		Ŭ	25.3	μg/kg		20	6,800	
SWSD010	Pesticido	alpha-Chlordanc		Ū	25.3	jıg/kg		94	47,000	
SWSD010	Pesticide	bcta-BHC		Ŭ	25.3	μg/kg		36	14,000	
SWSD010	Pesticide	delta-BHC		Ŭ	25,3	µg/kg		40	1,000,000	100000
SWSD010	Pesticide	Dieldrin	50.6	_	50.6	μg/kg		5	2,800	5 (04) 1852
SWSD010	Pesticide	Endosulfan I		Ŭ	25.3	μg/kg		2,400 ^d	920,000 ^d	
SWSD010	Pesticide	Endosulfan II	50,6	-	50,6	μg/kg		2,400 ^d	920,000 ^d	
SWSD010		Endosulfan sulfate		ŭ	50.6	μg/kg		2,400 ^d	920,000 ^d	
SWSD010	Pesticide	Endrin	50.6	_	50.6	μg/kg		14	410,000	100
SWSD010		Endrin aldehyde	50.6		50.6	µg/kg µg/kg	er (100 et 0)	NE	410,000 NE	101 Same
SWSD010	Pesticide	Endrin ketone		U	50.6	μg/kg	X-Turk STATE	NE.	NE.	110000000
SWSD010	Pesticide	gamma-BHC (Lindanc)		U	25.3	μg/kg		100	23,000	
SWSD010		gamma-Chlordane		U	25.3	μg/кg μg/kg	ny hatri watsaw	NE	23,000 NE	10000000
SWSD010		Heptachlor		U	25.3	μg/kg μg/kg	200000000000000000000000000000000000000	42	29,000	
SWSD010		Heptachlor epoxide		U	25.3	μg/kg μg/kg	18.0010.0000	NE NE	29,000 NE	
SWSD010		Methoxychlor		Ü	253	μg/kg μg/kg		NE NE	NE NE	
SWSD010		Toxaphene		0	1260	μg/kg μg/kg	30.0502363.0	NE NE	NE NE	100

SEDIMENT LOCATION*	PARAMETER*		RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State-Unrestricted Use***	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 10/30 SWSD011	Radiological	Radium-226	0,880		0.465	-04	0.434	l ne	NE.	5ª
SWSD011	Radiological	Radium-228	1.880		0.604	pCi/g pCi/g	0.434	NE NE	NE NE	5ª
		Total Radium ^a	2.760		0.001	pCi/g				5ª
SWSD011	Radiological	Thorium-228	1.210		0.333	pCi/g	0,483	NE	NE	5
SWSD011	Radiological	Thorium-230	1,320		0,256	pCi/g	0.492	NE	NE	5
SWSD011 SWSD011	Radiological Radiological	Thorium-232 Uranium-234	1.450 1.370		0.199	pCi/g	0.516	NE NE	NE NE	5 90 ^b
SWSD011	Radiological	Uranium-235	0.023	E 1	0.063	pCi/g pCi/g	0.377 0.047	NE NE	NE NE	90 ^b
SWSD011	Radiological	Uranium-238	1.220	_	0.118	pCi/g	0.351	NE	NE	90 ^b
		Total Uranium ^b	2.590			pCi/g				90 ^b
SWSD011	Metal	Aluminum	20500	J	2.69	mg/kg		NE	NE NE	
SWSD011 SWSD011	Metal Metal	Antimony Arsenic	2.8		0,808	mg/kg		NE 12	NE	
SWSD011	Metal	Barium	6.5 154	-	0.808 0.269	mg/kg mg/kg		13 350	16 10,000	apul535AH456,4+
SWSD011	Metal	Beryllium	0,97		0,0539	mg/kg		7	2,700	
SWSD011	Metal	Boron	28.9		2.15	mg/kg		NE.	NE	
SWSD011	Metal	Cadmium	0.81		0.0539	mg/kg		3	60	
SWSD011 SWSD011	Metal Metal	Calcium Chromium	61600 59,2	3	80,8 0.539	mg/kg		NE NE	NE NE	
SWSD011	Metal	Cobalt	14.6	\dashv	0.539	mg/kg mg/kg		NE NE	NE NE	
SWSD011	Metal	Copper	57.9		0.108	mg/kg		50	10,000	
SWSD011	Metal	Iron	34000		26.9	mg/kg		NE	NE	
SWSD011	Metal	Lçad	42.6	J	0.269	mg/kg		63	3,900	
SWSD011 SWSD011	Metal Metal	Lithium Magnesium	36,3 12000	.	1.08 2.69	mg/kg		NE NE	NE NE	
SWSD011	Metal	Manganese	1380	•	2.69	mg/kg mg/kg		1,600	10,000	1000
SWSD011	Metal	Mercury	146		10.8	μg/kg		180°	5700°	14030400
SWSD011	Metal	Nickel	35.6		0,269	mg/kg	000000000000000000000000000000000000000	30	10,000	EASTERNATION
SWSD011	Metal	Potassium	4710	_	43.1	mg/kg		NE	NE	
SWSD011 SWSD011	Metal Metal	Selenîum Silver	1.35 0.261	U	1.35 0.261	mg/kg		4	6,800 6,800	
SWSD011	Metal	Sodium	512	\dashv	43.1	mg/kg mg/kg	1000	NE	0,800 NE:	
SWSD011	Metal	Thallium	0.27	,	0.108	mg/kg		NE.	NE	
SWSD011	Metal	Vanadium	39.1	J	1.08	mg/kg		NE	NE	
SWSD011	Metal	Zinc	332		1.08	mg/kg	a dende	109	10,000	
SWSD011 SWSD011	VOC VOC	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	2.73 2.73	U U	2,73 2,73	μg/kg		680 NE	1,000,000 NB	
SWSD011	voc	1,1,2-Trichloroethane	2.73	Ü	2.73	μg/kg μg/kg		NE NE	NE NE	
SWSD011	VOC	I,I-Dichloroethane		U	2.73	μg/kg		270	480,000	
SWSD011	VOC	1,1-Dichloroethylene		U	2,73	μg/kg	6010 8000	330	1,000,000	
SWSD011 SWSD011	VOC VOC	1,2-Dichloroethane		Ü	2,73	μg/kg	Sign States	20	60,000	100
SWSD011	VOC	1,2-Dichloropropane 2-Butanone	2.73 13.7		2,73 13.7	μg/kg μg/kg		NE 120	NE 1,000,000	
SWSD011	voc	2-Hexanone	13.7	_	13.7	μg/kg	ilevos pientino	NE	1,000,000 NE	
SWSD011	VOC	4-Methyl-2-pentanone	13.7	_	13,7	μg/kg		NE	NE	
SWSD011	YOC	Acctone	13.7	_	13.7	μg/kg		50	1,000,000	
SWSD011 SWSD011	VOC	Benzene Bromodichloromethane	2.73	_	2.73	μg/kg		60 NE	89,000	
SWSD011	voc	Bromoform	2.73	U	2,73 2,73	μg/kg μg/kg		NE NE	NE NE	
SWSD011	VOC	Bromomethane	2.73		2,73	μg/kg		NE	NE	
SWSD011	VOC	Carbon disulfide	13.7	IJ	13.7	μg/kg		NE	NE	C LCDE LDVI
SWSD011	VOC	Carbon tetrachloride	2.73	- 13	2.73	μg/kg		760	44,000	
SWSD011 SWSD011	VOC VOC	Chlorobenzene Chloroethane	2.73	U .	2.73 2.73	μg/kg μα/kα		1,100 NE	1,000,000 NE	COLLABORATION
SWSD011	voc	Chloroform	2.73		2.73	μg/kg μg/kg		370	700,000	
SWSD011	VOC	Chloromethane	2.73	-	2.73	μg/kg		NE	NE	
SWSD011	VOC	cis-1,2-Dichloroethylene		J	2,73	µg/kg		250	1,000,000	
SWSD011 SWSD011	VOC	cis-1,3-Dichloropropylene		J	2.73	μg/kg		NE 1 000	NE TEO COO	
SWSD011	VOC VOC	Ethylbenzene Methylene chloride	2.73	j ģ	2,73 27.3	μg/kg μg/kg		1,000	780,000	
SWSD011		Styrene		l s	2.73	μg/kg μg/kg		NE	1,000,000 NE	
SWSD011	+ +	Tetrachloroethylene		J	2,73	μg/kg		1,300	300,000	
SWSD011	-1	Toluene	2.73	-	2.73	μg/kg		700	1,000,000	8038831
SWSD011 SWSD011		trans-1,2-Dichloroethylene		J	2.73	μg/kg	66.00	190	1,000,000	62865
SWSD011		trans-1,3-Dichloropropylene Trichloroethylene	2.73 t	_	2.73 2.73	μg/kg μg/kg	NE 1881 SAL	NE 470	NE 400,000	
SWSD011	+	Vinyl chloride	2.73 U	_	2.73	μg/kg	as established	20	27,000	e e e e e e e e e e e e e e e e e e e
WSD011		Xylenes (total)	2.73		2.73	μg/kg		260	1,000,000	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	ńnits*	Radiological Uncertainty (±)	NY State- Unrestricted 'Ese**	NY State-Restricted Use -Industrial**	DOE Cleanup Critería**
SWSD011	PAH	Accnaphthene		U U	45.4	µg/kg		20,000	1,000,000	
SWSD011	PAH	Acenaphthylene	45.4	u	45,4	ug/kg	5NS3 - 12	100,000	1,000,000	
SWSD011	PAH	Anthracene	45.4		45.4	μg/kg	100000000000000000000000000000000000000	100,000	1,000,000	925 (635)
SWSD011	PAII	Benzo(a)anthracene	101	۴-	4.54	μg/kg μg/kg	0.0000000000000000000000000000000000000	1,000	11,000	torsings:
SWSD011	РАН	Benzo(a)pyrene	99.8	⊢	4.54	ug/kg		1,000	1,100	3538315041
SWSD011	PAH	Benzo(b)fluoranthene	126	⊢	4.54	µg/kg µg/kg	5.425.050.00	1,000	11,000	20121650
SWSD011	PAH	Benzo(ghi)pervlene	69.3	 	4.54	ие/kg		100,000	1.000,000	
SWSD011	PAH	Benzo(k)fluoranthene	2,27	U	2.27			800,000	110,000	2000000000
SWSD011				u_		μg/kg	3 A S S S S S S S S S S S S S S S S S S			
	PAH	Chrysene	80.8		4,54 4,54	μg/kg		1,000 330	110,000	
SWSD011	PAH	Dibenzo(a,h)anthrucene	****	U	33350000000000000000000000000000000000	μg/kg				
SWSD011	PAH	Fluoranthene	142		4,54	μg/kg		100,000	1,000,000	
SWSD011	РАН	Fluorene		D.	45.4	μg/kg		30,000	1,000,000	
SWSD011	PAII	Indeno(1,2,3-cd)pyrene		Ü	4,54	μg/kg		500	11,000	
SWSD011		Naphthalene	45,4	U	45.4	μg/kg		12,000	1,000,000	
SWSD011		Phenanthrene	58.2	Ш	45,4	μg/kg		100,000	1,000,000	
SWSD011		Pyrene	141		4,54	μg/kg		100,000	1,000,000	
SWSD011	РСВ	Azoclor-1016	45,4	U	15.1	μg/kg		100	25,000	
SWSD011_	PCB	Aroclor-1221		U	15.1	μg/kg		100	25,000	0.000
SWSD011	PCB	Arocler-1232	45.4	υ	15,1	μg/kg		100	25,000	1000
SWSD011	PCB	Aroclor-1242		U	15.1	μg/kg	Section (Section	100	25,000	
SWSD011	PCB	Aroclor-1248	45.4	U	15.1	μg/kg		100	25,000	
SWSD011	PCB	Aroclor-1254	36.1	U	15,1	μg/kg		100	25,000	5.55
SWSD011	PCB	Aroclor-1260	20	U	15.1	μg/kg		100	25,000	66 (A) (A)
SWSD011	Pesticide	4,4'-DDD	36.3	Ų	36.3	μg/kg		3,3	180,000	
SWSD011	Pesticide	4,4'-DDE	36.3	U	36,3	μg/kg		3.3	120,000	
SWSD011	Pesticide	4,4'-DDT	36.3	U	36,3	μg/kg_		3.3	94,000	
SWSD011	Pesticide	Aldrin	18.2	U	18,2	μg/kg		5	1,400	
SWSD011	Pesticide	atpha-BHC	18.2	U	18,2	μg/kg		20	6,800	
SWSD011	Pesticide	alpha-Chlordane	18.2	U	18.2	μg/kg		94	47,000	
SWSD011	Pesticide	beta-BHC	18.2	U	18.2	μg/kg		36	14,000	
SWSD011	Pesticide	delta-BHC	18.2	U	18.2	μg/kg		40	1,000,000	
SWSD011	Pesticide	Dieldrin	36,3	U	36.3	μg/kg			2,800	
SWSD011	Pesticide	Endosulfan I	18.2	υ	18,2	µg/kg		2,400 ^d	920,000 ^d	
SWSD011	Pesticide	Endosulfan II	36.3	U	36.3	µg/kg		2,400 ^d	920,000 ^d	
SWSD011		Endosulfan sulfate		Ū	36.3	цд/kg		2,400 ^d	920,000	
SWSD011	 -	Endrin	36.3		36.3	μg/kg		14	410,000	
SWSD011		Endrin aldehyde	$\overline{}$	U	36.3	με/kg		NE	NE.	
SWSD011		Endrin acceryac Endrin ketone		U	36.3	μg/kg		NE NE	NE NE	7860 NO.
SWSD011	 -	gamma-BHC (Lindane)		υ	18.2	μg/kg μg/kg		100	23,000	
SWSD011		gamma-Bric (Linding)		U	18,2	μg/kg μg/kg		NE	23,000 NE	
SWSD011		Heptachlor		U	18.2			42	29,000	
SWSD011		Heptachlor epoxide		ŏ l	18.2	μg/kg μg/kg	SACRES I RECOVE	NE NE	29,000 NE	400-405
SWSD011				<u>' </u>	18.2		000000000000000000000000000000000000000	NE NE	NE NE	2000 to 200
SWSD011		Methoxychlor Toxaphene	182 908	<u>. </u>	182 908	µg/kg µg/kg		NE NE	NE NE	

SEDIMENT LOCATION*	PARAMETER*		RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 10/30/20	1	D. U. 202	1		T 225	SINGRA	0.401	N.E.		24 41 S
SED-DUP(swsport)	Radiological	Radium-226	1.020	_	0.375	pCi/g	0.421	NE	NE NE	5ª
SED-DUP(swsdell)	Radiological	Radium-228	2.400	H	0.654	pCi/g	0.604	NE	NE	2°
SED-DUP(swsdoil)	Radiological	Total Radium ^a Thorium-228	3.420 0,754		0.351	pCi/g pCi/g	0.381	NE	NE	5
SED-DUP(SWSD011)	Radiological	Thorium-230	1.440		0.331	pCi/g	0.516	NE	NE	5
SED-DUP(swsdoii)	Radiological	Thorium-232	0,686		0.168	pCi/g	0.328	NE	NE	5
SED-DUP(SWSD011)	Radiological	Uranium-234	1.200		0.137	pCi/g	0,356	NE	NE	90 ^b
SED-DUP(swsdott)	Radiological	Uranium-235	0.126		0.068	pCi/g	0.114	NE	NE	90 ^t
SED-DUP(swsd011)	Radiological	Uranium-238	0,946		0.107	pCi/g	0.308	NE	NB	90 ^b
		Total Uranium ^b	2.272			pCi/g				90 ^b
SED-DUP(swsf011)	Metal	Aluminum	18200	J	2.55	mg/kg		NB	NE	
SED-DUP(swsdoii)	Metal	Antimony	3.3		0.818	mg/kg		NE	NE	
SED-DUP(SWSD011)	Metal	Arsenic	6.4		0.764	mg/kg		13	16	
	Metal	Barium	137		0,255	mg/kg		350	10,000	
SED-DUP(SWSD011)	Metal	Beryllium	0.9	_	0.0509	mg/kg		7	2,700	
SED-DUP(swspott)	Metal	Boron	27	-	2.04	mg/kg		NE 2	NE	
SED-DUP(swsdott)	Metal Metal	Cadmium Calcium	0.75 51900	.	0.0509	mg/kg mg/kg		3 NE	60 NE	
	Metal	Chromium	51900	-	76.4 0,509	mg/kg mg/kg		NE NE	NE NE	
SED-DUP(swspo11)	Metal	Cobalt	12.8		0.0509	mg/kg		NE	NE	EX X
	Metal	Copper	51.1		0.102	mg/kg		50	10,000	
SED-DUP(swsD011)		Iron	29600		25.5	mg/kg		NE	NE	
SED-DUP(swsd011)	Metal	Lead	35.6	j	0.255	mg/kg		63	3,900	
SED-DUP(swsp011)	Metal	Lithium	31.3		1.02	mg/kg		NE	NE	
SED-DUP(swsdett)	Metai	Magnesium	11500	J	2,55	mg/kg		NE	NB	
SED-DUP(swsdett)	Metal	Manganese	1140		2.55	ng/kg		1,600	10,000	
	Metal	Mercury	115		9,14	μg/kg		180°	5700°	
	Metal	Nickel	30.9		0.255	mg/kg		30	10,000	
		Potassium	4260		40.8	mg/kg		NE	NE.	
***************************************	Metal	Sefenium	1,27	U	1.27	mg/kg		4	6,800	
	Metal Metal	Silver Sodium	0.264 496		0.264 40.8	mg/kg		2 NE	6,800 NE	
		Thattium	0.26	T	0,102	mg/kg mg/kg		NE NE	NB NB	100
SED-DUP(swspott)		Vanadium	35.5	j	1.02	mg/kg		NE:	NE.	
		Zînc	285		1,02	nıg/kg		109	10,000	
	VOC	1,1,1-Trichloroethane		U	2.66	µg/kg		680	1,000,000	
SED-DUP(swsdell)	VOC	1,1,2,2-Tetrachloroethanc	2.66	U	2.66	μg/kg		NE	NE	
SED-DUP(sws2011)	VOC	1,1,2-Trichlorocthanc	2.66	U	2.66	μg/kg		NE	NE	
		1,1-Dichloroethane	2,66	-	2.66	μg/kg		270	480,000	
	voc	1,1-Dichloroethylene		U	2.66	μg/kg		330	1,000,000	
	VOC	1,2-Dichloroethane	2.66		2,66	µg/kg		20	60,000	
		1,2-Dichloropropane	2.66	_	2.66	μg/kg		NE 120	NE Laga pag	
		2-Butanone 2-Hexanone	13.3 13.3	-	13.3 13.3	μg/kg μg/kg		120 NE	1,000,000 NE	
		4-Mcthyl-2-pentanone	13.3		13,3	μg/kg μg/kg		NE	NE	\$6.881A20
		Acetone	[3,3	\rightarrow	13.3	μg/kg		50	1,000,000	a de de de de de
		Benzene	2,66	$\overline{}$	2,66	μg/kg		60	89,000	100000
		Bromodichloromethane	2.66		2.66	μg/kg		NE	NE	2-65-65
SED-DUP(SWSD011)	VOC	Bromoform	2.66	U	2.66	μg/kg		NE	NE	
SED-DUP(swsport)	VOC	Bromomethane	2,66	U	2,66	μg/kg	Ne regimes	NE	NE	maarki
	VOC (Carbon disulfide	13.3	υ	13.3	μg/kg	等 製 頭	NE	NE	u anti
		Carbon tetrachloride	2.66		2.66	μg/kg		760	44,000	
		Chlorobenzene		U	2.66	μg/kg		1,100	1,000,000	100
		Chloroethane	2.66	-	2.66	μg/kg		NE	NE TOO OOO	
		Chloroform	2.66		2.66	μg/kg	8-9-50	370	700,000	
		Chloromethane cis-1,2-Dichloroethylene	2.66	_	2.66 2.66	μg/kg μg/kg		NE 250	NE 1,000,000	423244
		cis-1,3-Dichloropropylene	2,66	$\overline{}$	2.66	μg/kg μg/kg	i serio de	NE.	1,000,000 NB	20020166
		Ethylbenzene	2,66		2,66	μg/kg		1,000	780,000	See of the sec
		Methylene chloride	26.6	$\overline{}$	26.6	μg/kg		50	1,000,000	
		Styrene	2,66	- 1	2,66	μg/kg	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	NE	NE	
EED-DUP(swsD011)	voc	Petrachloroethylene		U	2.66	μg/kg	Santasi	1,300	300,000	100
		Foluene	2.66	U	2.66	μg/kg	155 - 21 (65	700	1,000,000	a 12.0
		rans-1,2-Dichloroethylene		Ŭ	2,66	μ g/kg	6.24.12	190	1,000,000	
		rans-1,3-Dichleropropylene	2.66	_	2.66	μg/kg	450.000.000	NE	NE	(a. 44, 45
		Frichtoroethylene	2.66		2,66	μg/kg	651000.60	470	400,000	
		Vinyl chloride	2,66	_	2,66	μg/kg		20	27,000	isic Great
ED-DUP(swsperi)	voc þ	(ylenes (total)	2,66	U	2.66	μg/kg		260	1,000,000	\$14 8 0.5

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
SED-DUP(SWSD011)	PAH	Accnaphthene	44.3	Ū	44.3	μg/kg		20,000	1,000,000	
SED-DUP(swsperi)	PAH	Acenaphthylene	44.3	U	44,3	μg/kg		100,000	1,000,000	
SED-DUP(swsperi)	PAH	Anthracene	44.3	U	44.3	μμ/kg		100,000	1,000,000	
SED-DUP(swsperi)	PAH	Benzo(a)anthracene	95,8		4.43	μg/kg		1,000	11,000	
SED-DUP(swsperi)	PAH	Benzo(a)pyrene	96.3		4.43	μg/kg	110000000000000000000000000000000000000	1,000	1,100	
SED-DUP(SWSD011)	PAH	Benzo(b)fluoranthene	107		4.43	μg/kg		1,000	11,000	
SED-DUP(swsner)	PAH	Benzo(ghi)perylene	61,9		4,43	μg/kg		100,000	1,000,000	
SED-DUP(SWSD011)	PAH	Benzo(k)fluoranthene	2,21	U	2.21	μg/kg		800,000	110,000	
SED-DUP(SWSD011)	PAH	Chrysene	84,6		4.43	цg/kg		1,000	110,000	800
SED-DUP(SWSD011)	PAII	Dibenzo(a,h)anthracene	4.43	U	4,43	μg/kg		330	1,100	
SED-DUP(swsport)	PAH	Fluoranthene	137	H	4,43	μg/kg		100,000	1,000,000	
SED-DUP(SWSD011)	PAH	Fluorene	44.3	U	44.3	μμ/kg	1000	30,000	1,000,000	
SED-DUP(swsp011)	PAH	Indeno(1,2,3-cd)pyrene		IJ	4,43	μg/kg		500	11,000	
SED-DUP(swsport)	PAH	Naphthalenc	44.3	_	44.3	μg/kg		12,000	1,000,000	
SED-DUP(swspott)	PAH	Phenanthrene	57.5	Ť	44.3	μg/kg		100,000	1,000,000	
SED-DUP(SWSD011)	PAII	Pyrene	131		4,43	µg/kg		100,000	1,000,000	
SED-DUP(swsport)	PCB	Aroclor-1016		U	15.1	µg/kg		100	25,000	
SED-DUP(swspott)	PCB	Aroclor-1221		U	15.1	μg/kg		100	25,000	
SED-DUP(swspo(1)	PCB	Aroclor-1232		U	15.1	μg/kg		100	25,000	
SED-DUP(swsport)	РСВ	Aroclor-1242		U	15,1	μg/kg		100	25,000	
SED-DUP(swsport)	PCB	Aroclor-1248	44,2		15.1	μg/kg		100	25,000	
SED-DUP(swspott)	PCB	Aroclor-1254		Ŭ	15.1	μg/kg	#1.000000000000000000000000000000000000	100	25,000	
SED-DUP(swsporm)	PCB	Araclor-1260	23.3		15,1	μg/kg	200000000000000000000000000000000000000	100	25,000	
SED-DUP(swsperi)	Pesticide	4,4'-DDD	35,4	$\overline{}$	35.4	μg/kg		3.3	180,000	
SED-DUP(swsperi)	Pesticide	4,4'-DDE	35,4		35.4	μg/kg		3.3	120,000	
SED-DUP(swsperi)		4,4'-DDT'	35.4		35.4	µg/kg		3,3	94,000	
SED-DUP(swspett)	Pesticide	Aldrin	17.7	-	17.7	μg/kg		5.5	1,400	
SED-DUP(swsnerr)		alpha-BHC	17.7		17.7	μg/kg		20	6,800,	
SED-DUP(swsport)		alpha-Chiordane		U	17.7	μg/kg		94	47,000	
SED-DUP(swsp011)		beta-BHC	17.7	_	17.7	μg/kg		36	14,000	
SED-DUP(swsport)	Pesticide	delta-BHC		Ŭ	17.7	μg/kg		40	1,000,000	
SED-DUP(swsport)	Pesticide	Dieldrin	35.4	_	35,4	μg/kg		5	2,800	
SED-DUP(swsport)	Pesticide	Endosulfan I	17.7	$\overline{}$	17.7	μg/kg		2,400 ^d	920,000 ^d	
SED-DUP(swsport)		Endosulfan II	35.4	— ₽	35.4	μg/кg μg/kg		2,400 ^d	920,000 ^d	
SED-DUP(swsbott)		Endosulfan salfate	35.4	_	35,4	· · · · · · · · · · · · · · · · · · ·		2,400 ^d	920,000 ^d	CONSTRUCTOR
SED-DUP(swsport)		Endosurian suriane Endrin	35.4	\rightarrow	35.4	μg/kg		2,400	410,000	
SED-DUP(swsport)		Endrin aldchyde	35.4		35.4	μg/kg		NE	410,000 NE	
SED-DUP(swsport)		Endrin ketone		u	35,4	μg/kg		NE NE	NE NE	
SED-DUP(swsport)			17.7		33, 4 1 17,7	μg/kg		100		
SED-DUP(swsport)		gamma-BHC (Lindane) gamma-Chlordane	17.7		17.7	μg/kg		NE	23,000 NE	10000000
SED-DUP(swsp011)		Heptachlor	17.7	$\overline{}$	17.7	μg/kg		42	29,000	
SED-DUP(swsport)		Heptachlor epoxide	17.7		17.7	μg/kg		NE		
SED-DUP(swsport)		Methoxychlor		U	177	μg/kg		NE NE	NE NE	1086244005
SED-DUP(swspott)		Toxaphene	885		885	μg/kg μg/kg		NE NE	NE NE	485.000
~~~ DOLIBRIDOLI)	I CONVICTOR	TOMPHONE	0031	v i	TO PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	ME/NE	2AAA CSARGARCH 2	1122	1417	11 CAN TO THE R. P. LEWIS CO. L. P. L.

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 10/30/2	T		1							
SWSD022	Radiological	Radium-226	1,140	L.,	0.419	pCi/g	0.462	NE	NE	
SWSD022	Radiological	Radium-228  Total Radium ^a	1.880	لـــا	0,544	pCi/g	0.520	NE	NE	5* 5°
SWSD022	Radiological	Thorium-228	3.020 1,520		0.364	pCi/g pCi/g	0.590	NE	NE	5
SWSD022	Radiological	Thorium-230	1,250	$\vdash$	0.166	pCî/g	0.500	NE	NE	5
SWSD022	Radiological	Thorium-232	1.210		0.100	pCi/g	0.489	NE	NE	
SWSD022	Radiological	Uranium-234	1.990		0.131	pCi/g	0,506	NE	NE	90 ⁶
SWSD022	Radiological	Uranium-235	0.126	U	0.146	pCi/g	0.127	NE	NE.	90 ^b
SWSD022	Radiological	Uranium-238	1.970	<u> </u>	101.0	pCi/g	0.503	NB	NE	90°
OW/ODAGO		Total Uranium b	3,960		1 400	pCi/g	FEED SOLE HEADS IN	, In		90 ^b
SWSD022 SWSD022	Metal Metal	Aluminum Antimony	21000 5,5	J	4,33 1.34	mg/kg mg/kg		NE NE	NE NE	
SWSD022	Metal	Arsenie	9.4	Н	1.34	mg/kg		13	16	
SWSD022	Metal	Barium	183		0,433	mg/kg		350	10,000	
SWSD022	Metal	Beryllium	1		0.0867	mg/kg		7	2,700	
SWSD022	Metal	Boron	36.5		3.47	mg/kg		NE	NB	
SWSD022	Metal	Cadmium	0,99		0.0867	mg/kg		3	60	
SWSD022	Metal	Calcium	30500	J	26	mg/kg		NE NE	NE	
SWSD022 SWSD022	Metal Metal	Chromium Cobalt	64.6 15.2		0.867 0.0867	mg/kg mg/kg		NE NE	NE NE	
SWSD022	Metal	Copper	67.4		0.0867	mg/kg		50	10,000	
SWSD022	Mctal	Iron	32800		8,67	mg/kg		NE	NE	
SWSD022	Metal	Lead	51,8	J	0.433	mg/kg		63	3,900	100
SWSD022	Metal	Lithiam	34.2		1.73	mg/kg		NE	NE	100
SWSD022	Metal	Magnesium	12700	J	4.33	mg/kg		NB	NE	Lista in
SWSD022	Metal	Manganesc	819		0.867	nig/kg		1,600	10,000	
SWSD022	Metal	Mercury	159		17.5	μg/kg	1000000	180°	5700°	0.80.00
SWSD022 SWSD022	Metal Metal	Nickel Potassium	36.7 5660		0.433 69.3	mg/kg mg/kg		30 NE	10,000 NE	80 SPH 458
SWSD022	Metal	Selenium	2.17	Ιī	2.17	mg/kg		4	6,800	10000
SWSD022	Metal	Silver	0,432	_	0.432	mg/kg		2	6,800	101.000311.440.0
SWSD022	Metal	Sodium	582	$\Box$	69.3	mg/kg		NE	NE	
SWSD022	Metal	Thallium	0.28	J	0,173	mg/kg		NE	NE	
SWSD022	Metal	Vanadium	42.9	J	1.73	mg/kg		NE	NE	
SWSD022	Metal	Zinc	291		1.73	nig/kg		109	10,000	
SWSD022 SWSD022	VOC	1,1,1-Trichloreethanc 1,1,2,2-Tetrackloreethane	4.51 4,51	U	4,51 4,51	μg/kg μg/kg		680 NE	1,000,000 NE	
SWSD022	voc	1.1.2-Trichloroethane		U	4.51	μg/kg		NE NE	NE NE	
SWSD022	VOC	1,1-Dichteroethane		Ü	4.51	μg/kg		270	480,000	0.000
SWSD022	VOC	1,1-Dichloroethylene	4,51	U	4.51	μg/kg		330	1,000,000	
SWSD022	VOC	1,2-Dichloroethane	4.51	U	4,51	μg/kg		20	60,000	
SWSD022	VOC	1,2-Dichloropropane	4,51		4.51	μg/kg		NE	NE	
SWSD022 SWSD022	VOC VOC	2-Butanone	22.5	_	22.5	μg/kg		120	1,000,000	
SWSD022		2-Hexanone 4-Methyl-2-pentanone	22.5 22.5		22.5 22.5	_μg/kg μg/kg		NE NE	NE NE	01.130.000
SWSD022	VOC	Acetone		U	22.5	μg/kg		50	1,000,000	
SWSD022		Benzene	4.51	_	4,51	<u>н</u> g/kg	e oraș	60	89,000	11.00
SWSD022	VOC	Bromodichloremethane	4.51	U	4,51	μg/kg		NE	NE	
SWSD022	VOC	Bromoform	4.51		4,51	μg/kg		NE	NB	
SWSD022	VOC	Bromomethane	4.51		4,51	μg/kg		NE	NE	
SWSD022	VOC	Carbon disulfide	22,5	_	22.5	μg/kg	120-140	NE TCO	NE 44.000	
SWSD022 SWSD022	VOC VOC	Carbon tetrachioride Chlorobenzene	4.51 4.51	U	4.51 4.51	μg/kg μg/kg		760 1,100	44,000 1,000,000	
SWSD022	VOC	Chloroethane		U	4.51	μg/kg μg/kg		1,100 NE	1,000,000 NE	
SWSD022	voc	Chloroform	4.51	_	4.51	μg/kg	2.356	370	700,000	
SWSD022	voc	Chloromethanc		U	4,51	μg/kg	SCHOOL SE	NE	NE	10.000198
		cis-1,2-Dichloroethylene		U	4,51	μg/kg	a grand straight	250	1,000,000	
		cis-1,3-Dichloropropylene		U	4,51	μg/kg		NE	NE	ensemen
		Ethylbenzene	4.51	_	4,51	µg/kg	ATOMAK.	1,000	780,000	11/2/20
		Methylene chloride	45.1		45,1	μg/kg σ/kg	151.000.00	50	1,000,000	
		Styrene Tetrachloroethylene	4.5 <b>i</b> 4.51	_	4,51 4,51	μg/kg μg/kg	10001016	1,300	NE 300,000	
		Toluene	4.51	_	4.51	μg/kg μg/kg		700	1,000,000	
	~~	trans-1,2-Dichloroethylene	4.51	_	4.51	μg/kg	20 PA GEORGE (1981)	190	1,000,000	CONTRACTOR OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE
		trans-1,3-Dichloropropylene	4,51		4.51	μg/kg		NE	NE.	A 10 40 184
		Trichloroethylene	4.51	U	4,51	μg/kg		470	400,000	n de la colo
		Vinyl chloride		U	4,51	μg/kg	55000000000	20	27,000	20.570.00
SWSD022	VOC :	Xylenes (total)	4.51	J [	4,51	jtg/kg		260	1,000,000	

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD022	PAH	Acenaphthene	74.9	U	74.9	μg/kg		20,000	1,000,000	
SWSD022	PAH	Acenaphthylene	74.9	U	74,9	μg/kg		100,000	1,000,000	
SWSD022	PAH	Anthracene	74.9	U	74,9	μg/kg		100,000	1,000,000	
SWSD022	PAH	Benzo(a)anthracene	76.4		7,49	μg/kg		1,000	11,000	
SWSD022	PAH	Benzo(a)pyrene	68.4		7,49	μg/kg		1,000	1,100	
SWSD022	PAH	Benzo(b)fluoranthene	79.3		7,49	μg/kg		1,000	11,000	100
SWSD022	PAH	Benzo(ghi)pcrylene	52.9		7.49	μg/kg		100,000	1,000,000	
SWSD022	PAH	Benzo(k)fluoranthene	3.74	U	3,74	μg/kg		800,000	110,000	
SWSD022	PAH	Chrysene	54.1		7,49	μg/kg		1,000	110,000	
SWSD022	PAH	Dibenzo(a,h)anthracene	7,49	U	7.49	μg/kg		330	1,100	
SWSD022	PAH	Fluoranthene	84.2		7.49	μg/kg		100,000	1,000,000	TO THE
SWSD022	РАН	Fluorene	74.9	U	74.9	μg/kg		30,000	1,000,000	10100
SWSD022	PAH	Indeno(1,2,3-cd)pyrene	7.49	U	7.49	μg/kg		500	11,000	
SWSD022	PAH	Naphthalenc	74.9	U	74.9	μg/kg		12,000	1,000,000	1001
SWSD022	PAH	Phenanthrene	41.2	j	74.9	μg/kg		100,000	1,000,000	
SWSD022	PAH	Pyrene	84,4		7,49	μg/kg		100,000	1,000,000	
SWSD022	PCB	Aroclor-1016	74.7	U	24.9	μg/kg		100	25,000	
SWSD022	РСВ	Aroclor-1221	74.7		24.9	μg/kg		100	25,000	
SWSD022	PCB	Areclor-1232	74.7	U	24.9	μg/kg		100	25,000	
SWSD022	PCB	Aroclor-1242	74.7	Ū	24.9	μg/kg		100	25,000	
SWSD022	PCB	Aroclor-1248	74.7	U	24.9	μg/kg		100	25,000	
SWSD022	PCB	Arocior-1254	48,5	J	24.9	μg/kg		100	25,000	
SWSD022	PCB	Aroclor-1260	30.1	j	24.9	μg/kg		100	25,000	
SWSD022	Pesticide	4,4'-DDD	59,8	υ	59.8	μg/kg		3.3	180,000	
SWSD022		4,4'-DDE		U	59,8	μg/kg		3,3	120,000	
SWSD022		4,4'-DDT		Ū	59.8	μg/kg		3.3	94,000	
SWSD022		Aldrin	29.9		29.9	μg/kg		5	1,400	
SWSD022		alpha-BHC		ĩ	29.9	μg/kg		20	6,800	
SWSD022		alpha-Chiordane		Ū	29.9	μg/kg		94	47,000	
SWSD022		beta-BHC	29,9	υ	29.9	μg/kg		36	14,000	
SWSD022	Pesticide	delta-BHC	29.9	_	29.9	ng/kg		40	1,000,000	
SWSD022	Pesticide	Dieldrin	59,8	Ū	59,8	µg/kg		5	2,800	100
SWSD022	Pesticide	Endosulfan I		U	29.9	μg/kg		2,400 ^d	920,000 ^d	
SWSD022		Endosulfan II		ŭ	59.8	µg/kg		2,400 ^d	920,000 ^d	0.02
SWSD022		Endosulfan sulfate		U	59.8	µg/kg цg/kg	PAGE 1531	2,400 ^d	920,000 ^d	
SWSD022		Endrin		U	59.8	µg/kg µg/kg	Marie Constitution	2,400	410,000	
SWSD022	Pesticide Pesticide	Endrin aldchyde		U	59.8	μg/kg μg/kg	200000000000000000000000000000000000000	NE	410,000 NE	
SWSD022	Pesticide	Endrin ketone		i I	59.8	μg/kg μg/kg		NE	NE	-
SWSD022		gamma-BHC (Lindane)		U	29.9	μg/kg μg/kg	0.000	100	23,000	
SWSD022	·	gamma-Chlordane		U	29.9	μg/kg μg/kg		NE.	23,000 NE	14314.00
SWSD022	<del></del>	Heptachlor		บ็	29.9			42	29,000	A SERVER
				U U	29.9	μg/kg		NE	29,000 NE	
SWSD022		Heptachlor epoxide	29.9	<u>''</u>	AV C-9-11 1-1-1-1	μg/kg		NE NE	NE NE	150 E
SWSD022	Pesticide	Methoxychlor	299	U	299	µg/kg	376	NE NE	NE.	

SEDIMENT LOCATION* Sample Date: 10/29/	PARAMETER ²	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State- Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD023	Radiological	Radium-226	0.975	3269982	0.463	pCi/g	0.450	NE	NE	5 ^a
SWSD023	Radiological	Radium-228	1,850	T	0,453	pCi/g	0.481	NE.		. 5ª
		Total Radium 4	2.825			pCi/g				5ª
SWSD023	Radiological	Thorium-228	0.759		0,622	pCi/g	0.516	NE	NE	5
SWSD023	Radiological	Thorium-230	0.519	l	0.251	pCi/g	0.344	NE	NI:	5
SWSD023 SWSD023	Radiological Radiological	Thorium-232 Uranium-234	0,908		0,130	pCi/g	0,464	NE NE	NH.	90 ^b
SWSD023	Radiological	Uranium-235	0.903	H	0.146	pCi/g pCi/g	0.320	NE NE	NE NE	90 ⁸
SWSD023	Radiological	Uranium-238	0,880		0,146	pCi/g	0.315	NE	NE NE	90 ^b
		Total Uranium ^b	1.805		•	pCi/g				90 ^b
SWSD023	Mctal	Aluminum	5960		1.79	mg/kg		NE	NB	
SWSD023	Metal	Antimony	2,1		0.563	mg/kg	610000	NE	NE	
SWSD023 SWSD023	Metal Metal	Arsenic Barium	2.5 54,5		0.536	mg/kg		13 350	16 200	1.000
SWSD023	Metal	Bervilium	0.27		0.179	mg/kg mg/kg		7	10,000 2,700	a de la companya de l
SWSD023	Metal	Вогоп	9.5	Н	1.43	mg/kg	G0000000000000000000000000000000000000	NE	2,700 NE	
SWSD023	Metal	Cadmium	0,35	J	0.0357	mg/kg		3	60	
SWSD023	Metal	Calcium	21300		53.6	mg/kg		NE	NE	
SWSD023	Metal	Chromium	11		0.357	mg/kg		NE	NE	
SWSD023 SWSD023	Metal Metal	Cobalt	3.8 72	,	0.0357 0.0736	mg/kg		NE 50	NE 10,000	
SWSD023	Metal	Copper Iron	8310	J	3.57	mg/kg mg/kg		NE	10,000 NB	
SWSD023	Metal	Lead ÷	39.8		0.179	mg/kg	10.00	63	3,900	
SWSD023	Metal	Lithium	9.5		0.715	mg/kg		NE	NE	
SWSD023	Metal	Magnesium	9260		1,79	mg/kg		NE	NE	
SWSD023	Metal	Manganese	234		0.357	mg/kg		1,600	10,000	
SWSD023 SWSD023	Metal Metal	Mcreury Nickel	191 10,2		6.6 0.179	μg/kg		180°	5700°	
SWSD023	Metal	Potassium	1460	1	28.6	mg/kg mg/kg		NE	10,000 NE	
SWSD023	Metal	Selenium	-	U	0.893	mg/kg		4	6,800	
SWSD023	Metal	Silver	0.26	J	0.181	mg/kg		2	6,800	
SWSD023	Metal	Sođium	251		28.6	mg/kg		NE	NE	
SWSD023 SWSD023	Metal	Thallium	0.15	J	0.0715	mg/kg		NE	NE.	
SWSD023	Metal Metal	Vanadium Zinc	13.2 163	-	0.715	mg/kg mg/kg		NE 109	NE 10,000	
SWSD023	VOC	1,1,1-Trichloroethane		U	1,72	μg/kg		680	1,000,000	
SWSD023	VOC	1,1,2,2-Tetrachloroethane		υ	1.72	μg/kg		NE	NE.	A SALES
SWSD023	VOC	1,1,2-Trichloroethane		U	1.72	μg/kg		NE	NE	in especie
SWSD023	VOC	1,1-Dichloroethane		U	1.72	μg/kg		270	480,000	8.46/195
SWSD023 SWSD023	VOC	1,1-Dichloroethylene 1,2-Dichloroethane	<del></del>	U	1.72 1.72	μg/kg		330	1,000,000	0.000.00
SWSD023	VOC	1,2-Dichloropropane	1.72		1.72	μg/kg μg/kg		20 NE	60,000 NE	
SWSD023 ·	VOC	2-Butanone	8.6	$\rightarrow$	8.6	µg/kg		120	000,000,1	
SWSD023	VOC	2-Hexanone	8,6	U	8.6	μg/kg		NE	. NE	
SWSD023	VOC	4-Methyl-2-pentanone	8,6	U	8,6	μg/kg		NE	NE	in sandis
SWSD023 SWSD023	VOC.	Accione	12.7		8,6	μg/kg		50	1,000,000	0.00
SWSD023	VOC VOC	Benzene Bromodichloromethane	1.72		1,72 1,72	μg/kg μg/kg		60 NE	89,000 NE	
SWSD023	voc	Bromoform	1.72	$\rightarrow$	1.72	ng/kg		NE	NE NE	
SWSD023	VOC	Bromomethane	1.72		1,72	μg/kg		NE	NE	
SWSD023	VOC	Carbon disulfide	8.6		8.6	μg/kg	SOUTH DESIGNATION	NE	NE	
SWSD023	VOC	Carbon tetrachloride	1.72		1,72	μg/kg		760	44,000	
SWSD023 SWSD023	VOC VOC	Chlorobenzene Chloroethane	1.72	_	1.72 1.72	μg/kg		1,100 NE	1,000,000 NE	
SWSD023	VOC.	Chloroform		U	1,72	μg/kg μg/kg	2000	370	700,000	
SWSD023	VOC	Chloromethane	1.72		1.72	μg/kg	5028032	NE	NE.	Si sentes:
SWSD023		cis-1,2-Dichloroethylene	11.9	2000	1.72	μg/kg		250	1,000,000	
SWSD023		cis-1,3-Dichloropropylene	1.72		1.72	μg/kg		NE	NE	
SWSD023 SWSD023		Ethylbenzene Mathylana aklasida	1.72	_	1,72	μg/kg		1,000	780,000	
SWSD023 SWSD023		Methylene chloride Styrene	17.2 U	_	17,2	μg/kg μg/kg		50 NE	1,000,000 NE	92 95 151 S. 160 181
SWSD023	voc	Tetrachloroethylene	28.9	<u> </u>	1.72	µg/kg µg/kg		1,300	300,000	
SWSD023 .	-	Toluene -	1.72	J	1.72	μg/kg		700	1,000,000	
SWSD023	<del></del>	trans-1,2-Dichloroethylene	1,72 (	J	1.72	μg/kg	0.384	190	1,000,000	
SWSD023	<del> </del>	rans-1,3-Dichleropropylene	1.72 U	J	1.72	μg/kg	Englis	NE	NE	
SWSD023 SWSD023		Frichloroethylene Vinyl chloride	14.1	7	1.72	μg/kg		470 20	400,000	division to the
SWSD023	<del> </del>	Vinyi chioride Xylenes (total)	1.72 U		1,72 1,72	μg/kg μg/kg		260	27,000 1,000,000	
	1.00	-,	1./4	- 13	(1985年) · 中国	PEAR :	esergagera (Prior)	200	1,000,000	2010/04/25/25/25/25

SEDIMENT	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial***	DOE Cleanup Criteria**
SWSD023	PAH	Acenaphthene		υ	61.8	μg/kg		20,000	1,000,000	
SWSD023	PAH	Accaphthylene	61,8	U	61.8	дg/kg		100,000	1,000,000	
SWSD023	PAH	Anthracene	57.3	j -	61.8	µg/kg		100,000	1,000,000	
SWSD023	PAH	Benzo(a)anthracenc	323	İ	6.18	µg/kg		1,000	11,000	
SWSD023	PAH	Вспло(а)ругеле	351		6.18	μg/kg		1,000	1,100	
SWSD023	PAH	Benzo(b)fluoranthene	408		6.18	µg/kg		1,000	11,000	(0) (0)
SWSD023	PAH	Benzo(ghi)perylene	251		6.18	ng/kg		100,000	1,000,000	10000000
SWSD023	PAH	Benzo(k)fluoranthene	3,09	IJ	3.09	дg/kg		800,000	110,000	314633888
SWSD023	PAH	Chrysene	256		6.18	ng/kg		1,000	110,000	
SWSD023	PAH	Dibenzo(a,h)anthracene	6.18	Εl	6.18	μg/kg		330	1,100	100000
SWSD023	PAII	Fluoranthene	492	Ť	6.18	µg/kg		100.000	1,000,000	
SWSD023	PAH	Fluorenc	61.8	U.	61.8	μg/kg		30,000	1,000,000	10500000
SWSD023	PAH	Indeno(1,2,3-cd)pyrene	6,18		6,18	μg/kg		500	11,000	
SWSD023	PAH	Naphthalene		U	61.8	<u>гр∕к</u> g		12,000	1,000,000	
SWSD023	РАН	Phenanthrene	275	_	61,8	µg/kg		100,000	1,000,000	
SWSD023	PAH	Pyrene	444		6.18	μg/kg		100,000	1,000,000	
SWSD023	PCB	Aroclor-1016	30,9	ΙI	10.3	µg/kg		100,000	25,000	
SWSD023	PCB	Aroclor-1221	30.9		10.3	μg/kg		100	25,000	
SWSD023	PCB	Aroclor-1232		U	10.3	μg/kg μμ/kg		100	25,000	
SWSD023	PCB	Aroclor-1242	30.9	_	10.3	μg/kg		100	25,000	
SWSD023	PCB	Arocior-1248	33.6	-	10.3	ик/ка пк/ка		100	25,000	200 E 0 15 2 2
SWSD023	PCB	Aroclor-1254	33,4	-	10,3	μg/kg		100	25,000	4.03
SWSD023	PCB	Aroclor-1260	38.3	īΗ	10.3	ug/kg	300000000000000000000000000000000000000	100	25,000	
SWSD023		4.4'-DDD		IJ	24.6	μg/kg		3,3	180,000	
SWSD023		4,4'-DDE	24.6	_	24.6	μg/kg μg/kg		3,3	120,000	
SWSD023		4.4'-DDT		U U	24.6	μg/kg μg/kg	200	3.3	94,000	S-116
SWSD023	Pesticide	Aldrin	<del></del>	U	12.3	μg/kg		5.5	1,400	
SWSD023		aipha-BHC	12.3	-	12.3	μg/kg μg/kg		20	6,800	11000
SWSD023		alpha-Chlordane	12,3	$\overline{}$	12.3	μg/kg		94	47,000	
SWSD023		beta-BHC	12.3		12.3	µg/kg µg/kg		36	14,000	
SWSD023		delta-BHC	12.3	-	12.3	μg/kg μg/kg		40	1,000,000	
SWSD023		Dieldrin	24,6	$\overline{}$	24.6	μg/kg μg/kg		5	2,800	
SWSD023	<del></del>	Endosulfan i	12,3	_	12.3	μg/kg		2,400 ^d	920,000 ^d	
SWSD023	<del></del>	Endosulfan II	24,6	$\overline{}$	24.6			2,400 ^d	920,000 g	
SWSD023				$\rightarrow$	A 2 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	μg/kg				
SWSD023		Endosulfan sulfate Endrin	24.6	_	24.6 24.6	μg/kg		2,400 ^d	920,000 ^d	
			24.6	_	AAAAAAAAAAAAAAA	μg/kg			410,000	
SWSD023		Endrin aldehyde Endrin ketone	24,6 24,6		24,6 24,6	μg/kg		NE NE	NE NE	
SWSD023					77.7.7.6.60	μg/kg				
SWSD023		gamma-BHC (Lindane)	12.3	-	12,3	µg/kg		100	23,000	
SWSD023		gamma-Chlordane		U.	12.3	μg/kg	2000	NE 42	NB an ana	Minter Library
SWSD023		Heptachlor	12.3	_	12.3	μg/kg		42	29,000	
SWSD023		Heptachlor epoxide	12.3	-	12.3	μg/kg	SIN USE A MARCH	NE	_ NE	
SWSD023	<del></del> _	Methoxychlor		U	123	μg/kg		NE	NE.	
SWSD023	Pesticide '	l'oxaphene	616	U	.616	µg/kg		NE	NE	

SEDIMENT LOCATION* Sample Date: 10/2	PARAMETER*	* ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWSD024	Radiological	Radium-226	0.659	Lincoln	0,368	pCi/g	0,352	NE	NE	5ª
SWSD024	Radiological	Radium-228	1.100		0.544	pCi/g	0.433	NE	NE	5ª
		Total Radium ^a	1.759	<u> </u>		pCi/g				5*
SWSD024 SWSD024	Radiological Radiological	Thorium-228 Thorium-230	0.884	<del> ,-</del>	0.349 0.187	pCi/g	0.402	NE NE	NE NE	5
SWSD024	Radiological	Thorium-232	1.220	1	0.187	pCi/g pCi/g	0.379	NB NB	NE NE	5
SWSD024	Radiological	Uranium-234	3.060		0.153	pCi/g	0.727	NE	NE	90 ^h
SWSD024	Radiological	Uranium-235	0,212		0.170	pCi/g	0,176	NE	NE	90 ^b
SWSD024	Radiological	Uranium-238	3.020		0.071	pCi/g	0.719	NE	NE	90 ^b
		Total Uranium ^b	6.292			pCi/g				90 ^b
SWSD024	Metal	Aluminum	21500	_	15.3	mg/kg		NE	NE	
SWSD024 SWSD024	Metal	Antimony	1,5		0,934	mg/kg		NE 12	NE NE	
SWSD024	Metal Metai	Arsenic Barium	6.1	_	0.307	mg/kg mg/kg		13 350	16 10,000	
SWSD024	Metal	Berylfium	0.9	-	0.0613	mg/kg		7	2,700	
SWSD024	Metal	Boron	38.7	ı	2.45	mg/kg		NE.	NE NE	
SWSD024	Metal	Cadmium	0.92		0.0613	mg/kg		3	60	
SWSD024	Metal	Calcium	22700		18,4	mg/kg		NE	NE	
SWSD024	Metal	Chromium	27.4	J	0.613	mg/kg		NE	NE	
SWSD024 SWSD024	Metal	Cobalt	11.9	J	0,0613	mg/kg		NE	NE 10 000	
SWSD024	Metal Metal	Copper	65,3 29000	j J	0.123 30.7	mg/kg mg/kg		50 NE	10,000 NE	
SWSD024	Metal	Lead	32.7	J	0.307	mg/kg		63	3,900	
SWSD024	Metal	Lithium	29.3	J	1,23	mg/kg		NE	NE NE	
SWSD024	Metal	Magnesium	11600	l	3.07	mg/kg		NE	NE	
SWSD024	Metal	Manganese	375	J	0.613	mg/kg		1,600	10,000	
SWSD024	Metal	Мегенгу	153	1	11.7	μg/kg		180°	5700°	
SWSD024	Metal	Nickel	29.2	J	0.307	mg/kg		30	10,000	
SWSD024 SWSD024	Metal Metal	Potassium Selenium	4030 1.53	J • ·	49,1 1,53	mg/kg mg/kg		NE 4	NE 6,800	
SWSD024	Metal	Silver		U	0,301	mg/kg		2	6,800	410 (1989)
SWSD024	Metal	Sodium	220	J	49.1	mg/kg		NE	NE.	
SWSD024	Metal	Thallium	0.25	j	0.123	mg/kg		NE	NE	
SWSD024	Metal	Vanadium	43.2	J	1,23	mg/kg	S. Havis	NE	NE	
SWSD024 SWSD024	Metal	Zinc	426	J	1.23	mg/kg		109	10,000	
SWSD024 SWSD024	VOC VOC	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	2.95 2,95	U	2.95 2.95	μg/kg μg/kg		680 NE	1,000,000 NE	
SWSD024 SWSD024	voc	1,1,2,2-Tetrachiorocthane		U	2,95	μg/kg μg/kg		NE NE	NE NE	
SWSD024	VOC	1,1-Dichloroethane		U	2,95	μg/kg		270	480,000	
SWSD024	VOC	1,1-Dichloroethylene	2.95	U	2.95	μg/kg		330	1,000,000	
SWSD024	VOC	1,2-Dichloroethane	-10-0	U	2.95	μg/kg		20	60,000	
SWSD024	VOC	1,2-Dichloropropane	2.95		2.95	μ <u>u</u> /kg	de decemb	NE	NE	and the same
SWSD024 SWSD024	VOC	2-Butanone 2-Hexanone	14.7 14.7	-	14,7 14.7	µg/kg µg/kg	0.06(0.00)	120 NE	1,000,000 NE	
SWSD024	voc	4-Methyl-2-pentanone	14.7	$\overline{}$	14.7	μg/kg μg/kg	listostinos:	NE NE	NE.	5.4657.51856
SWSD024	VOC	Acetone	14.7		14.7	μg/kg	English Sept.	50	1,000,000	m42-91-455-55
SWSD024	voc	Benzene	2.95	_	2.95	μg/kg		60	89,000	23
SWSD024	VOC	Bromodichloromethane	2,95		2.95	μg/kg		NE	NE	
SWSD024	VOC	Вготобогт	2.95	$\rightarrow$	2,95	μg/kg		NE	NB	
SWSD024 SWSD024	VOC VOC	Bromomethane	2.95	$\rightarrow$	2.95	μg/kg		NE	NE	
SWSD024	VOC	Carbon disulfide Carbon tetrachloride	14.7 2.95	U	14.7 2.95	μg/kg μg/kg		NE 760	NE 44,000	100000000000000000000000000000000000000
SWSD024	voc	Chlorobenzene	2.95	_	2.95	μg/kg		1,100	1,000,000	0.0000000000000000000000000000000000000
SWSD024	VOC	Chloroethane	2,95	$\overline{}$	2,95	µg/kg		NE	NE	
SWSD024	VOC	Chloroform	2.95	$\overline{}$	2,95	ug/kg		370	700,000	
SWSD024	VOC	Chloromethane	2.95	U [	2,95	μg/kg		NE	NE	
SWSD024 SWSD024	VOC	cis-1,2-Dichloroethylene	6.18	,	2.95	μg/kg		250	1,000,000	10000000000000000000000000000000000000
SWSD024	VOC VOC	cis-1,3-Dichloropropylenc : Ethylbenzene	2.95	_	2.95 2.95	μg/kg μg/kg		NE 1,000	NE 780,000	
SWSD024	voc	Methylene chloride	2.93		29.5	μg/kg μg/kg		1,000	1,000,000	
SWSD024	voc	Styrene	-	U	2.95	μg/kg		NE.	NE	
SWSD024	VOC	Tetrachloroethylene	16.1		2.95	μg/kg		1,300	300,000	
SWSD024	VOC	Toluene		J	2,95	μg/kg		700	1,000,000	
SWSD024	VOC	frans-1,2-Dichloroethylene		J I	2.95	μg/kg		190	1,000,000	
SWSD024 SWSD024	<del></del>	trans-1,3-Dichloropropylene	2.95	J	2,95	μg/kg		NE 470	NE	
SWSD024		Trichloroethylene Vinyl chloride	7.07 2.95	1	2.95 2.95	μg/kg μg/kg		470 20	400,000 27,000	0.61036303166
SWSD024		Xylenes (total)	2.95 1		2.95	μg/kg μg/kg		260	1,000,000	65/14/5/14/5/5/5/5/5/5/5/5/5/5/5/5/5/5/5/
<u> </u>	1	,,	2,,2		or the grade of the Table	0.0	00 THE RESIDENCE	200	. ,000,000	granically MRSS.

SEDIMENT LOCATION*	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
SWS1)024	РАН	Accnaphthene	51.1	υ	51,1	μg/kg		20,000	1,000,000	
SWSD024	PAH	Accuaphthylene	51.1	U	51,1	μg/kg		100,000	1,000,000	
SWSD024	PAH	Anthracene	51.1	U	51.1	μg/kg		100,000	1,000,000	
SWSD024	РАН	Benze(a)anthracene	8,88		5,11	μg/kg		1,000	11,000	
SWSD024	PAH	Венго(а)ругене	93.7		5.11	μυ/kg		1,000	1,100	
SWSD024	PAH	Benzo(b)fluoranthene	5.11	υ	5.11	μg/kg		1,000	11,000	
SWSD024	PAH	Benzo(ghi)perylene	116	J	5,11	μg/kg		100,000	1,000,000	
SWSD024	PAH	Benzo(k)fluoranthenc	2.56	U	2.56	μg/kg		800,000	110,000	
SWSD024	PAH	Chrysene	5,11	U	5,11	μg/kg		1,000	110,000	
SWSD024	PAH	Dibenzo(a,h)anthracene	5,11	U	5,11	μg/kg		330	1,100	
SWSD024	PAH	Fluoranthene	104		5.11	μg/kg		100,000	1,000,000	
SWSD024	PAH	Fluorene	51.1	U	51.1	μg/kg	0.0000000000000000000000000000000000000	30,000	1,000,000	
SWSD024	PAH	Indeno(1,2,3-cd)pyrene	5.11	U	5,11	ug/kg	in the	500	11,000	
SWSD024	PAH	Naphthalene	51.1	U	51.1	μg/kg	100	12,000	1,000,000	6.15
SWSD024	PAH	Phenanthrene	60.8		51.1	μg/kg		100,000	1,000,000	
SWSD024	РАН	Pyrene	106		5,11	μg/kg		100,000	1,000,000	
SWSD024	PCB	Aroclor-1016	10.1	U	3.36	μg/kg	in spiral	100	25,000	NA SE
SWSD024	PCB	Aroclor-1221	10.1	U	3,36	μg/kg		100	25,000	100
SWSD024	РСВ	Aroclor-1232	10,1	U	3.36	μg/kg		100	25,000	
SWSD024	PCB	Aroclor-1242	10.1	Ū	3.36	µg/kg		1001	25,000	
SWSD024	РСВ	Aroclor-1248	29.1		3,36	μg/kg		100	25,000	
SWSD024	РСВ	Aroclor-1254	22,2		3.36	μg/kg		100	25,000	
SWSD024	PCB	Aroclor-1260	12.2		3.36	µg/kg		100	25,000	
SWSID024	Pesticide	4.4'-DDD		U	40.9	µg/kg		3.3	180,000	
SWSD024	Pesticide	4,4'-DDE	40.9	U	40.9	μg/kg		3.3	120,000	
SWSD024	Pesticido	4,4'-DDT	40.9	Ū	40,9	μg/kg		3.3	94,000	
SWSD024		Aldrin	20.4	U	20.4	μg/kg		5	1,400	
SWSD024		alpha-BHC		Ū	20.4	με/kg		20	6,800	
SWSD024	Pesticide	alpha-Chlordane	20.4	Ū	20.4	μg/kg		94	47,000	
SWSD024	Pesticide	beta-BHC	20.4	Ù	20.4	μg/kg		36	14,000	
SWSD024		delta-BHC	20,4	U	20.4	μg/kg		40	1,000,000	
SWSD024		Dieldrin	1	Ū	40.9	µg/kg		5	2,800	
SWSD024	Pesticide	Endosulfan I	20,4	U	20.4	цу/ка		2,400 ^d	920,000 ^d	
SWSD024		Endosulfan II	40.9		40.9	μg/kg	1.0	2,400 ^d	920,000 ^d	
SWSD024		Endosulfan sulfate		U	40.9	μg/kg		2,400 ^d	920,000 ^d	
SWSD024		Endrin		υ l	40.9	μg/kg		2,400	410,000	NOTE OF
SWSD024		Endrin aldehyde		U	40.9	μg/kg μg/kg		NB	430,000 NE	
WSD024		Endrin ketone		U U	40.9	μg/kg μg/kg	20 (15 (15 (15 (15 (15 (15 (15 (15 (15 (15	NE NE	NE NE	
SWSD024	Pesticide	gamma-BHC (Lindane)		U	20,4	μg/kg μg/kg		100	23,000	
WSD024	Pesticide	gamma-Erlo (Emdane)		Ŭ	20.4	μg/kg μg/kg		NE.	25,000 NB	
WSD024		Heptachlor	20.4		20,4	μg/kg μg/kg	0.000 (1.000)	42	29,000	20075-0080
WSD024		Heptachlor epoxide	20.4	<u>:  </u>	20,4	μg/kg μg/kg		NE	29,000 NE	40 SERIOLS
SWSD024		Methoxychlor	20.4	U	20,4	μg/kg μg/kg	al color Gran	NE NE	NE NE	
SWSD024		Toxaphene	1020		1020	μg/kg μg/kg	9185.000	NE NE	NE NE	trendendak

SEDIMENT LOCATION* Sample Date: 10/27/2	PARAMETER ⁴	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
WDD1	Radiological	Radium-226	0.834		0.412	pCi/g	0.397	NE	NE	. 5ª
WDDI	Radiological	Radium-228	2,420	H	0.551	pCi/g	0.575	NE.	NE	
		Total Radium ^a	3.254	Г		pCi/g				5ª
WDD1	Radiological	Thorium-228	1,380		0,440	pCi/g	0.546	NE	NE	
WDD1	Radiological	Thorium-230	1.570		0.186	pCi/g	0.545	NE VE	NE	
WDD1 WDD1	Radiological Radiological	Thorium-232 Uranium-234	1.230 1.410	}—	0,167 0,141	pCi/g pCi/g	0,465 0,421	NE NE	NH NE	-
WDD1	Radiological	Uranium-235	0,060	-	0.141	pCi/g	0.421	NE NE	NE	
WDD1	Radiological	Uranium-238	1.900		0,109	pCi/g	0.506	NE	NH.	<del> </del>
		Total Uranium ^b	3.310			pCi/g				90 ^b
WDD1	Metal	Aluminum	12100.00	J	12	mg/kg		NE	NE	
WDD1	Metal	Antimony	1.20	_	0.753	nig/kg		NE	NE	
WDD1 WDD1	Metal	Arsenic Barium	2.10	_	0.719	mg/kg		13 350	10,000	
WDDI	Metal Metal	Beryllium	88,10 0.57	3	0,24 0,0479	mg/kg mg/kg		.330	2,700	
WDD1	Metal	Boron	13.80	П	1.92	mg/kg		NE	2,700 NE	
WDD1	Metal	Cadmium	0,19	J	0.0479	mg/kg		3	60	
WDD1	Metal	Calcium	15700.00	J	14.4	mg/kg		NE	NE.	
WDD1	Metal	Chromium	19.90		0.479	mg/kg		NE	NE	
WDDI	Metal Metal	Cobalt Copper	7.70 18.00		0.0479	mg/kg mg/kg	E810159-9938	NE 50	NE 10,000	
WDD1	Metal	Iron	14600.00	j	4.79	mg/kg		NE.	NE	
WDD1	Metal	Lead	8,60		0.24	mg/kg		63	3,900	
WDD1	Metal	Lithium	20.80		0.959	mg/kg		NE	NE	
WDD1	Metal	Magnesium	7370.00	J	12	mg/kg		NE	NB.	
WDD1	Metal	Manganese Mereury	382,00	J	0.479	mg/kg		1,600 180°	10,000 5700°	
WDDI	Metal Metal	Nickel	19.00 17.20		9.99 0,24	μg/kg mg/kg		30	10,000	
WDDI	Metal	Potassium	3120.00	J	38.4	mg/kg		NE	NE	
WDD1	Metal	Selenium	1.20	U	1.2	mg/kg		4	6,800	
WDD1	Metal	Silver	5,2.	U	0,243	mg/kg		2	6,800	
WDD1	Metal	Sodium	268.00		38.4	mg/kg		NE NE	NE	
WDD1 WDD1	Metal Metal	Thallium Vanadium	0.13 20,10	)	0,0959 0.959	mg/kg mg/kg		NE NE	NE NE	
WDD1	Metal	Zinc	90.70	J	0.959	mg/kg		109	10,000	
WDD1	voc	1,1,1-Trichloroethane	2.47	U	2,47	μg/kg		680	1,000,000	
WDD1	VOC	1,1,2,2-Tetrachloroethane		U	2.47	μg/kg		NE	NE.	
WDDI	VOC	1,1,2-Trichloroethane		U U	2.47	μg/kg		NE	NE too noo	
WDD1 WDD1	VOC	1,1-Dichloroethane 1,1-Dichloroethylenc		U	2.47 2.47	μg/kg μg/kg		270 330	480,000 1,000,000	3000
WDD1	voc	1,2-Dichloroethane		U	2.47	μg/kg		20	60,000	
WDD1	VOC	1,2-Dichloropropane	2,47		2.47	μg/kg		NE	NE	
WDD1	VOC	2-Butanone	12.40	$\overline{}$	12.4	µg/kg		120	1,000,000	
WDD1	VOC	2-Hexanone	12.40		- 12.4	μg/kg		NE	NE.	1613 (313 (323)
WDD1 .	VOC	4-Methyl-2-pentanone Acetone	12,40 12.40	_	12.4 12.4	μg/kg μg/kg		NE 50	1,000,000	(A)
WDDI	voc	Benzene	2.47	$\dashv$	2.47	μg/kg	(2) (2) (3)	60	89,000	
WDD1	VOC	Bromodichloromethane	2,47	υ	2.47	μg/kg	1000	NE	NE	
WDD1	VOC	Bromoform	2.47	$\rightarrow$	2.47	µg/kg		NE	NE	
WDD1 WDD1	VOC VOC	Bromomethane Carbon disulfide	2.47 12.40		2,47 12,4	μg/kg μg/kg		NE NE	NE NE	7 - 2 D - 1857 10 3 2 D - 1857
WDD1	VOC	Carbon tetrachloride		U	2,47	μg/kg μg/kg		760	44,000	
WDD1	VOC	Chlorobenzene		U	2,47	μg/kg		1,100	1,000,000	
WDD1	VOC	Chloroethane	2,47	U	2.47	μg/kg		NE	NE	
WDD1	VOC	Chloroform		U	2.47	μg/kg	60.400	370	700,000	
WDD1	VOC VOC	Chloromethane cis-1,2-Dichlomethylene	2.47 2.47	U	2.47 2.47	μg/kg μg/kg	0512815	NE 250	NE 1,000,000	
WDD1	VOC	cis-1,2-Dichloropropylene	2.47	_	2.47	μg/kg μg/kg	69 301 35	NE	1,000,000 NE	er storiet
WDD1	voc	Ethylbenzene	2.47		2,47	μg/kg		1,000	780,000	
WDDI	VOC	Methylene chloride	24.70	U	24,7	μg/kg		50	1,000,000	
WDD1	VOC	Styrene		U	2.47	μg/kg	30.00	NE	NB	Dalia di
WDD1	VOC	Tetrachloroethylene Telepage	2,47	_	2.47	µg/кв		1,300 700	300,000	
WDD1 WDD1		Toluene trans-1,2-Dichloroethylene	2.47 2.47	U	2.47 2.47	μg/kg μg/kg	12.12.116	190	1,000,000	
WDDI		trans-1,3-Dichloropropylene	2.47		2.47	μg/kg	100000000000000000000000000000000000000	NE	1,000,000 NE	
WDD1	<del></del>	Trichloroethylene	2.47	_	2,47	μg/kg	(5-15-A-3-1)	470	400,000	15.166.156
WDD1		Vinyl chloride	2,47		2.47	μg/kg		20	27,000	STATE OF STREET
WDDI	VOC	Xylenes (total)	2.47	U :	2.47	μg/kg	e e e	260	1,000,000	

SEDIMENT			·	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION* WDD1	PARAMETER*		RESULTS 41,20	U U	A1.2	μg/kg	R D	20,000	1,000,000	A 0
WDDI	PAH PAH	Acenaphthene Acenaphthylene	41,20		41.2	μg/kg μg/kg		100,000	1,000,000	
WDDI	PAH	Anthracene	41.20		41.2	μg/kg μg/kg		100,000	1,000,000	100
WDDI	PAH	Benzo(a)anthracene	41.20		4,12	μg/kg μg/kg		1,000	11,000	1010010200
WDDI	PAH	Benzo(a)pyrene	20,20	۳	4.12		140000000000000000000000000000000000000	1,000	1,100	(85)51696
			4.12	7.1	4.12	μg/kg		1,000	1,700	
WDD1 WDD1	PAH PAH	Benzo(b)fluoranthene	12,70	Ψ.	4.12	μg/kg		1,000	1,000,000	Adictoric
		Benzo(ghi)perylene		<del>-</del>	Arthur Macon Valley	μg/kg				Definition
WDD1	PAH	Benzo(k)fluoranthene	2,06	Ų.	2.06	μg/kg		800,000	110,000	10000
WDDI	PAH	Chrysene	23.70 4.12		4,12	μg/kg		1,000	110,000	
WDD1	PAH	Dibenzo(a,h)anthracene		<u>v</u>	4.12	μg/kg		330	1,100	
WDD1	PAH	Fluoranthene	35,90	_	4.12	μg/kg		100,000	1,000,000	
WDD1	РАН	Fluorene	41,20	υ	41,2	μg/kg		30,000	1,000,000	
WDD1	PAH	Indeno(1,2,3-cd)pyrene	4,12	U	4,12	μg/kg		500	11,000	
WDD1	РАН	Naphthalene	41.20	U	41,2	μg/kg		12,000	1,000,000	
WDD1	РАН	Phenanthrene	19.40	J	41.2	μg/kg		100,000	1,000,000	100
WDD1	PAH	Pyrene	25,40		4,12	μg/kg		100,000	1,000,000	
WDD1	РСВ	Aroclor-1016	8.21	U	2.73	μg/kg		100	25,000	(6)
WDD1	PCB	Aroclor-1221	8,21	U	2.73	μg/kg		100	25,000	
WDD1	PCB	Aroclor-1232	8,21	U	2.73	μg/kg		100	25,000	
WDD1	РСВ	Aroclar-1242		U	2.73	μg/kg		100	25,000	
WDDI	PCB	Aroclor-1248	-121	U	2,73	µg/kg		100	25,000	
WDD1	РСВ	Aroclor-1254	6,80	J	2.73	μg/kg		100	25,000	1250 HE
WDD1	PCB	Arocior-1260		U	2.73	μg/kg		100	25,000	regulation.
WDD1	Pesticide	4,4'-DDD	32,90	U	32.9	μg/kg	STREET, STREET,	3.3	180,000	s in life.
WDD1	Pesticide	4,4'-DDE		U	32.9	μg/kg		3,3	120,000	A BUILD
WDD1	Pesticide	4,4'-DDT	020,70	U	32.9	μg/kg	Selection (	3.3	94,000	
WDDI	Pesticide	Aldrin		U	16.5	μg/kg		5	1,400	
WDD1	Pesticide	alpha-BHC	16,50	U	16.5	μ <u>u</u> /kg		20	6,800	
WDDI	Pesticide	alpha-Chlordane	16.50	U	16.5	μg/kg		94	47,000	
WDD1	Pesticide	beta-BHC	16,50	C.	16.5	μg/kg		36	14,000	
WDD1	Pesticide	delta-BHC	16,50	U	16.5	μg/kg		40	1,000,000	
WDD1	Pesticide	Dieldrin	32,90	U	32.9	μg/kg		5	2,800	
NDD1	Pesticide	Endosulfan l	16.50	υ	16,5	μg/kg		2,400 ^d	920,000 ^d	
WDD1	Pesticide	Endosulfan II	32.90	U	32.9	μg/kg		2,400 ^d	920,000 ^d	
WDD1	Pesticido	Endosulfan sulfate	32.90	U	32,9	μg/kg		2,400 ^d	920,000 ^d	
WDD1		Endrin	32,90	_	32.9	ng/kg		[4	410,000	
WDDI		Endrin aldehyde	32,90	-	32.9	μg/kg	200000000000000000000000000000000000000	NE	NE	
WDD1		Endrin ketone	32,90		32.9	μg/kg		NE	NE	
WDD1		gamma-BHC (Lindane)	16,50	_	16,5	µg/kg		100	23,000	1100000
NDD1		gamma-Chlordane	16,50	_	16.5	μg/kg		NE.	NE	a has a desira
WDD1		Heptachlor		U	16.5	μg/kg		42	29,000	120
VDD1		Heptachlor cpoxide	16,50	_	16.5	μg/kg	100000000	NE	27,000 NE	
VDD1		Methoxychlor	165,00	_	165	<u>р</u> д/кд µд/кд		NE	NE.	100
VDD1		Тохаріспе		U	823	μg/kg		NE NE	NE	sinta ango

SEDIMENT LOCATION*	PARAMETER ²	* ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (+)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
Sample Date: 10/27/ WDD2	Radiological	Radium-226	0.961		0,597	pCi/g	0.515	NB.	NE	5ª
WDD2	Radiological	Radium-228	0.834	<del> </del>	0.460	pCi/g	0,361	NE	NE NE	5 ^a
		Total Radium ^a	1.795	ļ		pCi/g				. 5ª
WDD2	Radiological	Thorium-228	0.934	_	0.377	pCi/g	0.429	NE	NE	5
WDD2	Radiological	Thorium-230	0.797	J	0.184	pCi/g	0.357	NE	NE	5
WDD2 WDD2	Radiological Radiological	Thorium-232 Uranium-234	0.849	}	0.086	pCi/g pCi/g	0.366	NE NE	NE NE	90 ^b
WDD2	Radiological	Uranium-235	0.109	-	0.103	pCi/g	0.303	NE NE	NE NE	90 ^b
WDD2	Radiological	Uranium-238	1.110	-	0.136	pCî/g	0,360	NE	NE	90 ^b
		Total Uranium ^b	2,250		•	pCi/g				90 ^b
WDD2	Metal	Aluminum	11500.00	-	13.9	mg/kg		NE	NE	
WDD2 WDD2	Metal	Antimony	1.20	J	0.859	mg/kg		NE	NE 16	
WDD2	Metal Metal	Barium	2.70 100.00	ī	0.835 0.278	mg/kg mg/kg		13 350	10,000	
WDD2	Metal	Beryllium	0.49	Ť	0.0557	mg/kg	F 100 050	7.	2,700	
WDD2	Metal	Boron	16.40		2.23	mg/kg		NE	NE	
WDD2	Metal	Cadmium	0.28	Ļ	0,0557	mg/kg		3	60	
WDD2 WDD2	Metal Metal	Calcium Chromium	20000,00 19,50	J	16.7	mg/kg		NE	NE NE	
WDD2	Metal	Cobalt	6.60	$\vdash$	0.557 0.0557	mg/kg mg/kg		NE NE	NE NE	
WDD2	Metal	Copper	32,70		0.111	mg/kg		50	10,000	
WDD2	Metal	Iron	17200.00	3	5.57	mg/kg		NE	NE	
WDD2	Metal	Lead	9.70		0.278	mg/kg		63	3,900	
WDD2 WDD2	Metal Metal	Lithium Magnesium	19,40 5040.00		1.11 2.78	mg/kg mg/kg	30.459950	NE NE	NE NE	
WDD2	Metal	Manganese	723.00	]	2.78	mg/kg		1,600	10,000	
WDD2	Metal	Mercury	36,00		9.84	μg/kg		180°	5700°	
WDD2	Metal	Nickel	17.30		0.278	mg/kg	Season Season	30	10,000	
WDD2	Metal	Potassium	2860.00		44,5	nig/kg		NE	NE	
WDD2 WDD2	Metal Metal	Selenium Silver	1,39 0.48	U	1.39 0.277	mg/kg mg/kg		4 2	6,800 6,800	
WDD2	Metal	Sodium	258.00	3	44.5	mg/kg		NE:	0,800 NE	
WDD2	Metal	Thallium	0,13	J	0.111	mg/kg		NE	NE	
WDD2	Metal	Vanadium	21.20	Ш	1.11	mg/kg		NE	NB	
WDD2 WDD2	Metal	Zinc 1,1,1-Trichloroethane	130,00		1,11	mg/kg		109	10,000	
WDD2	voc voc	1,1,2,2-Tetrachloroethane		U U	2,82 2.82	μg/kg μg/kg		680 NE	1,000,000 NE	
WDD2	voc	1,1,2-Trichloroethane		U	2,82	μg/kg		NE.	NE	
WDD2	VOC	t,1-Dichloroethane	2.82	Ü	2.82	μg/kg		270	480,000	
WDD2	VOC	1,1-Dichloroethylene		U	2.82	μg/kg		330	1,000,000	
WDD2 WDD2	VOC VOC	1,2-Dichloroethane 1,2-Dichloropropane	2,82 2.82	U	2.82 2.82	μg/kg μg/kg		20 NE	60,000 NE	
WDD2	VOC	2-Butanone	14.10		14.1	μg/kg		120	1,000,000	
WDD2	VOC	2-Нехалопе	14,10		14.1	μg/kg		NE	NE	
WDD2	VOC	4-Methyl-2-pentanone	14.10		14,1	μg/kg		NE	NE	117501317
WDD2	VOC	Acctone	14.10		14.1	μg/kg		50	1,000,000	
WDD2 WDD2	VOC VOC	Benzene Bromodichloromethane	2.82 2.82	וו	2.82 2.82	μg/kg μg/kg		60 NE	89,000 NE	
WDD2	VOC	Bromoform	2.82	-	2.82	μg/kg		NE	NE:	
WDD2	VOC	Bromomethane	2,82	U	2.82	μg/kg		NE	NE	
WDD2	VOC	Carbon disulfide	14.10	$\overline{}$	14,1	μg/kg		NE	NE	
WDD2	VOC	Carbon tetrachioride	2,82		2.82	μg/kg		760	44,000	
WDD2 WDD2	VOC	Chlorobenzene Chloroethane	2.82 2.82	U I	2.82 2.82	μg/kg μg/kg		1,100 NE	1,000,000 NE	
WDD2	voc	Chloroform	2.82		2.82	μg/kg		370	700,000	
WDD2	VOC	Chloromethane	2.82	U	2.82	μg/kg		NE	ŊE	
WDD2	VOC	cis-1,2-Dichloroethylene	2.82		2,82	μg/kg		250	1,000,000	
WDD2 WDD2	VOC	cis-1,3-Dichloropropylene Ethylbenzene	2,82 2.82	$\overline{}$	2.82 2.82	µg/kg		NE 1,000	NE 780,000	5000
WDD2 WDD2	voc	Methylene chloride	28.20	_	2.82	μg/kg μg/kg	actors and order	50	1,000,000	
WDD2	voc	Styrene		ŭ	2.82	μg/kg	(a) (a)	NE	NE	
WDD2	voc	Tetrachloroethylene	2.82	-	2.82	μg/kg		1,300	300,000	61495.000
WDD2	VOC	Toluenc	2,82		2,82	μg/kg	1011/015 22	700	1,000,000	Bosbos -
WDD2 WDD2	VOC	trans-1,2-Dichloroethylene trans-1,3-Dichloropropylene	2.82 2.82	$\overline{}$	2.82 2.82	μg/kg μg/kg	1914253446	190 NE	1,000,000 NE	1000005
WDD2	voc	Trichloroethylene	2.82		2.82	μg/kg	AMERICAN STREET	470	400,000	0.004040301
WDD2	VOC	Vinyl chloride	2.82	U	2,82	μ <b>ε</b> /kg		20	27,000	200
WDD2	VOC	Xylenes (total)	2.82	U	2.82	μg/kg		260	1,000,000	

				_				,		
SEDIMENT				QUALIFIER*	Detection or Reporting Limit*	*SLIND	Radiological Uncertainty (±)	NY State- Unrestricted Use***	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
LOCATION*	PARAMETER*	ANALYTE	RESULTS	_		<u> 5</u>	25			<u>  A &amp; </u>
WDD2	PAH	Acenaphthene	46.90	U	46.9	μg/kg		20,000	1,000,000	
WDD2	PAH	Acenaphthylene	46.90	U	46.9	μg/kg		100,000	1,000,000	
WDD2	PAH	Anthracene	46,90	U	46.9	μg/kg		100,000	1,000,000	
WDD2	PAH	Benzo(a)anthracene	150,00		4,69	μg/kg		1,000	11,000	Antest (St.
WDD2	PAH	Benzo(a)pyrene	109.00		4.69	μg/kg		1,000	1,100	
WDD2	PAH	Benzo(b)fluoranthene	127.00		4.69	μg/kg		1,000	11,000	
WDD2	PAH	Benzo(ghi)perylene	66.40		4.69	μg/kg		100,000	1,000,000	
WDD2	PAH	Benzo(k)fluoranthene	79.90		2,35	µg/kg		800,000	110,000	
WDD2	PAH	Chrysene	145,00		4.69	μg/kg		1,000	110,000	
WDD2	PAII	Dibenzo(a,h)anthracene	4.69	U	4.69	μg/kg		330	1,100	
WDD2	PAH	Fluoranthene	167.00		4.69	μg/kg		100,000	1,000,000	real and
WDD2	PAH	Fluorene	46.90	U	46.9	μg/kg	av registratit	30,000	1,000,000	
WDD2	PAII	Indeno(1,2,3-cd)pyrene	4.69	U	4,69	μg/kg		500	11,000	
WDD2	РАН	Naphthalene	46.90	U	46,9	μg/kg		12,000	1,000,000	
WDD2	PAH	Phenanthrene	30,60	J	46.9	μg/kg		100,000	1,000,000	
WDD2	PAH	Pyrene	201.00		4,69	μg/kg		100,000	1,000,000	
WDD2	. PCB	Arocior-1016	9.28	U	3.09	μg/kg		100	25,000	
WDD2	PCB	Aroclor-1221	9,28	U	3.09	μg/kg		100	25,000	
WDD2	PCB	Areclor-1232	9,28	Ū	3.09	μg/kg	and the same	100	25,000	
WDD2	PCB	Arocior-1242	9.28	U	3.09	μg/kg		100	25,000	
WDD2	PCB	Aroclor-1248		U	3.09	μg/kg		100	25,000	
WDD2	PCB	Araclor-1254		Ū	3.09	μg/kg		100	25,000	
WDD2	PCB	Arocior-1260	9.28	Ŭ.	3.09	μg/kg		100	25,000	
WDD2	Pesticide	4,4'-DDD		Ū	37.3	μg/kg		3,3	180,000	
WDD2	Pesticide	4,4'-DDE	37.30		37.3	μg/kg		3.3	120,000	
WDD2	Pesticide	4,4'-DDT		Ū	37,3	ng/kg		3.3	94,000	
WDD2	Pesticide	Aldrin	18,70	_	18.7	μg/kg		5	1,400	
WDD2	Posticide	alpha-BHC	18,70		18.7	µg/kg		20	6,800	
WDD2	Pesticide	aloha-Chlordane	18.70	$\overline{}$	18.7	μμ/kg		94	47,000	
WDD2	Pesticide	beta-BHC	18.70	$\overline{}$	18.7	μg/kg		36	14,000	
WDD2	Pesticide	delta-BHC	18.70		18,7	μg/kg		40	1,000,000	
WDD2	Pesticide	Dieldrin	37.30	-	37.3	μg/kg			2,800	
WDD2	Pesticide	Endosulfan I	18.70	-	18.7	με/kg	del casa (discuss	2,400 ^d	920,000 ^d	
WDD2	Pesticide	Endosulian II	37,30	_	37.3	μg/kg μg/kg		2,400 ^d	920,000 ^d	
WDD2 WDD2	Pesticide	Endosulfan sulfate	37.30		37.3	<u>µg/к</u> g µg/kg		2,400 ^d	920,000 d	
WDD2	Pesticide	Endrin	37.30	$\overline{}$	37.3	μ <u>в</u> /к <u>в</u> μ <b>g</b> /kg		2,400	410,000	
WDD2 WDD2	Pesticide	Endrin aldchyde	37,30		37.3			14 NE	410,000 NE	
WDD2 WDD2		Endrin ketone	37.30	$\rightarrow$	37.3	μg/kg μg/kg		— NE	NE NE	
WDD2 WDD2	Pesticide	gamma-BHC (Lindane)	18,70	$\rightarrow$	18.7			100	23,000	
WDD2		gamma-BHC (Lingane) gamma-Chlordane	18,70		18.7	μg/kg	\$24.00000000	NE	23,000 NE	
WDD2 WDD2			18.70	_	18.7	μg/kg		42	29,000	
WDD2 WDD2		Heptachlor		_		μg/kg	\$1.555 × 3.0	NE	29,000 NE	
		Heptachlor epoxide	18.70		18.7	μg/kg	5045600000		NE NE	
WDD2		Methoxychlor	187.00	$\rightarrow$	187	μg/kg		NE		
WDD2	Pesticide	Toxaphene	934.00	υ	934	μg/kg		NE	NE	

SEDIMENT LOCATION* Sample Date: 10/28/2	PARAMETER* 008 Radiological	ANALYTE Radium-226	RESULTS	QUALIFIER*	Detection or Reporting	*SLINI PCi/g	Se Radiological Uncertainty (±)	NY State- Unrestricted	NY State- Restricted Use-Industrial**	DOE Cleanup Criteria**
WDD3	Radiological	Radium-228	1,290	_	0.716		0.535	NE	N.F	5"
****		Total Radium ^a	2,970			pCi/g				5ª
WDD3	Radiological	Thorium-228 Thorium-230	0.818	-	0.335	pCi/g	0.372	NB	NE	5
WDD3 WDD3	Radiological Radiological	Thorium-232	1,450 0,793	╁	0.143	pCi/g pCi/g	0.480 0.332	NE NE	NE NE	5
WDD3	Radiological	Uranium-234	1.000	Г	0.143	pCi/g	0.336	NE	NE	90 ⁵
WDD3	Radiological	Uranium-235	0.056	U	0.076	pCi/g	0,080	NE	NE	90
WDD3	Radiological	Uranium-238	1,330	_	0,119	pCi/g	0.396	N.E	NE	90 ^b
WDD3	Metal	Total Uranium ^b	2.330 16400	Ī	15.5	pCi/g nig/kg		NE.	NE	90
WDD3	Metal	Antimony	1.3	j	0.963	mg/kg		NE.	NE	
WDD3	Metal	Arsenic	3,2	ĵ	0,932	mg/kg		13	16	
WDD3	Metal	Barium	123	J	0.311	mg/kg		350	10,000	
WDD3 WDD3	Metal Metal	Beryllium	0.66 25,3	J	0.0622	mg/kg		7 NE	2,700	
WDD3	Metal Metal	Boron Cadmium	25,3 0.32	<u>'</u>	2,49 0,0622	mg/kg mg/kg		NE 3	NE 60	
WDD3	Metal	Calcium	13700	j j	18.6	mg/kg	100	NE	NE	
WDD3	Metal	Chromium	23	J	0,622	mg/kg		NE	NE	
WDD3	Metal	Cobalt	8.4	,	0.0622	mg/kg		NE	NE	
WDD3	Metal	Copper	32	J	0.124	nig/kg		50	10,000	
WDD3 WDD3	Metal Metal	Iron Lcad	21400 13.1	J I	31.1 0.311	mg/kg mg/kg		NE 63	NE 3,900	
WDD3	Metal	Lithium	24.1	J	1.24	mg/kg		NE	NE	
WDD3	Metal	Magnesium	6730	J	3.11	mg/kg		NE	NE	
WDD3	Metal	Manganese	715	J	3.11	mg/kg		1,600	10,000	
WDD3	Metal	Mercury	54.7		12.9	µg/kg		180°	5700°	
WDD3 WDD3	Metal Metal	Nickel Potassium	18.8 3840	J	0.311 49.7	mg/kg mg/kg		30 NE	10,000 NE	
WDD3	Metal	Selenium	1,55	I)	1.55	mg/kg		4	6,800	
WDD3	Metal	Silver	0.311	Ü	0.311	mg/kg		2	6,800	
WDD3	Metal	Sodium	305	J	49.7	mg/kg		NE	NE	100
WDD3	Metal	Thallium	0.18	J	0.124	mg/kg		NE	NE	
WDD3 WDD3	Metal Metal	Vanadium Zinc	30.1 159	J T	1.24	mg/kg mg/kg		NE 109	NE 10,000	
WDD3	VOC	1,1,1-Trichloroethane	3.26	U	3,26	нg/kg		680	000,000,1	
WDD3	VOC	1,1,2,2-Tetrachloroethane	3.26		3.26	μg/kg		NE	NE	1.00
WDD3	voc	1,1,2-Trichloroethane	3,26		3.26	μg/kg		NE	NE	
WDD3 WDD3	VOC VOC	1,1-Dichloroethane	*****	U	3,26	µg/kg		- 270	480,000	
WDD3	VOC	1,1-Dichloroethylene 1,2-Dichloroethane	3.26 3.26	11 0	3.26 3.26	μg/kg μg/kg	100,000,000	330	1,000,000 60,000	
WDD3	VOC	1,2-Dichloropropane	3.26	Ū	3.26	μg/kg		NE	NE	
WDD3	VOC	2-Butanone	16.3		16,3	μg/kg		120	1,000,000	
WDD3	VOC	2-Hexanone	16.3		16.3	μg/kg		NE	NE	
WDD3 WDD3	VOC VOC	4-Methyl-2-pentanone Acetone	16.3 16,3	$\overline{}$	16.3 16.3	μg/kg		NE 50	NE 1,000,000	
WDD3	VOC	Accione Benzene	3,26		3.26	µg/kg µg/kg		60:	89,000	
WDD3	VOC	Bromodichloromethane	3.26		3.26	µg/kg		NE	NE	20392-340
WDD3	VOC	Bremoform	3.26		3,26	μg/kg		NE	NE	
WDD3	VOC	Bromomethane Carbon digulfida	3,26	_	3.26	μg/kg		NE	NE	
WDD3 WDD3	VOC VOC	Carbon disulfide Carbon tetrachloride	16.3 3,26	-	16.3 3.26	μg/kg μg/kg	100	NE 760	NE 44,000	100000000
WDD3	VOC	Chlorobenzene	3.26	$\rightarrow$	3.26	μg/kg μg/kg	Section 1	1,100	1,000,000	5/18/07PE
WDD3	VOC	Chloroethane	3.26	U	3.26	μg/kg		NE	NE	104 (2011) 104 (2011) 105 (2011)
WDD3	VOC	Chloroform		U	3.26	μg/kg		370	700,000	Elighlest.
WDD3 WDD3	VOC VOC	Chloromethane cis-1,2-Dichloroethylene	3.26 3.78	U	3.26 3.26	μg/kg μg/kg		NE 250	NE 1,000,000	152112 203 152312 203
WDD3	VOC	cis-1,3-Dichloropropylene	3.78	U	3,26	μg/kg μg/kg		NE	1,000,000 NE	
WDD3	VOC	Ethylbenzene		ľ	3.26	μg/kg	10.4846	1,000	780,000	
WDD3	VOC	Methylene chloride	32.6		32,6	μg/kg	98 95 M	50	1,000,000	
WDD3 WDD3	VOC	Styrene	3,26	U	3.26	μg/kg		NE L 200	NE	
WDD3 WDD3		Tetrachloroethylene Toluene	7.3 3,26	ı, İ	3,26 3,26	μg/kg μg/kg		1,300 700	300,000	
WDD3	VOC	trans-1,2-Dichlerocthylene		U	3.26	μg/kg μg/kg	nervoenske Geroenske	190	1,000,000	
WDD3	voc	trans-1,3-Dichleropropylene	3.26	Ū	3,26	μg/kg	65 (25)(62)	NE	NE	
WDD3		Trichloroethylene	3.91	$\Box$	3,26	μg/kg	660.000.000	470	400,000	
WDD3 WDD3		Vinyl chloride	3.26	$\overline{}$	3,26	μg/kg	00.000	20	27,000	
WDD3		Xylenes (total) Acenaphthene	3.26 54.4	U U	3,26 54,4	μg/kg μg/kg	765.0650.055	260	1,000,000	
		Acenaphthylene		IJ.	54,4	μg/kg		100,000	1,000,000	200 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 - 120 -
		Anthracene	257		54,4	μg/kg	120000000000	100,000	1,000,000	

SEDIMENT	PARAMETER*	ANALYTE	RESULTS	QUALIFIER*	Detection or Reporting Limit*	UNITS*	Radiological Uncertainty (±)	NY State- Unrestricted Use**	NY State-Restricted Use -Industrial**	DOE Cleanup Criteria**
WDD3	PAH	Benzo(a)anthracene	1610	_	27.2	jig/kg		1,000	11,000	
WDD3	PAH	Benzo(a)pyrene	2820	$\vdash$	27.2	ng/kg		1,000	1,100	12002176836
WDD3	PAII	Benzo(b)fluoranthene	2820	┢	27.2	μg/kg		1,000	11,000	46846
WDD3	PAH	Benzo(ghi)perylene	1230	$\vdash$	27.2	HE/KE	946666	100,000	1,000,000	
WDD3	PAH	Benzo(k)fluoranthene	1320	⊢	13.6	μg/kg	200000000	800,000	110,000	49543
WDD3	PAH	Chrysene	1500		27.2	μg/kg	500000000000000000000000000000000000000	1,000	110,000	1000000
WDD3	PAH	Dibenzo(a,h)anthracene	195	ī	5.44	μg/kg μg/kg		330	1,100	
WDD3	PAH	Fluoranthene	682	-	5,44	_ <u>μg/kg</u> μg/kg		100,000	1,000,000	AAASO ASS
WDD3	PAH	Fluorene	54.4	TT	54.4	μg/кg μg/kg		30,000	1,000,000	
WDD3	PAH	Indeno(1,2,3-ed)pyrene	1380	<u> </u>	27.2	ид/кд ид/кд		500	11,000	
WDD3	PAH	Naphthalene	54.4	F 1	54.4	<u>н</u> д/кд нд/кд		12,000	1,000,000	
WDD3	PAH	Phenanthrene	54.4	_	54.4	цg/kg цg/kg		100,000	1,000,000	
WDD3	PAH	Pyrene	1380	<u> </u>	27.2	μg/kg μg/kg		100,000	1,000,000	
WDD3	PCB	Aroclor-1016	10.7		3.55	_ µg/кg ug/kg		100,000	25,000	
WDD3	PCB	Aroclor-1016 Aroclor-1221	10.7	_	3.55	<u>дд∕кд</u> μд∕кд		100	25,000	
WDD3	PCB	Aroclor-1221 Aroclor-1232	10.7		3.55	ng/kg ng/kg		100	25,000	200000000000000000000000000000000000000
WDD3	PCB	Aroclor-1242	10.7	_	3.55	ид/кд ид/кд		100	25,000	
WDD3	PCB	Aroclor-1242 Aroclor-1248		U:	3.55	дg/kg цg/kg		100	25,000	
WDD3	PCB	Aroclor-1248	10.7		3.55			100	25,000	2000
WDD3	PCB			U	3.55	μg/kg μg/kg		100	25,000	
WDD3	Pesticide	Aroclor-1260 4.4'-DDD	43.4	,	43.4	<u>ид∕кд</u> μд∕кд		3.3	180,000	
WDD3	Pesticide			U	43.4	ие/ке		3.3	120,000	
WDD3	Pesticide	4,4'-DDE 4,4'-DDT	43.4	-	43.4		101000000000000000000000000000000000000	3.3	94,000	
WDD3	Pesticide	Aldrin		U	21.7	μg/kg μg/kg		5.5	1,400	
WDD3	Pesticide	alpha-BHC	21.7		21.7			20	6,800	
WDD3	Pesticide	<u> </u>		U U	21.7	µg/kg µg/kg		94	47,000	
WDD3	Pesticide	alpha-Chlordane	21.7	,	21.7			36	14,000	
WDD3	Pesticide	beta-BHC		U	21.7	μg/kg		40	1,000,000	
WDD3	Pesticide Pesticide	delta-BHC	43.4	_	43.4	hf/kg		5	2,800	
		Dieldrin		U	21.7	μg/kg		2,400 ^d	920,000 ^d	
WDD3	Pesticide	Endosulfan I	-711	-		μg/kg			920,000	
WDD3	Pesticide	Endosulfan II	43.4		43,4	μg/kg		2,400 ^d		
WDD3	Pesticide	Endosulfan sulfate	15.1	U	43.4	μg/kg		2,400 ^d	920,000 ⁴	
WDD3	Pesticide	Endrin		U	43,4	μg/kg		14	410,000	
WDD3	Pesticide	Endrin aldehyde		U	43,4	μg/kg		NE	NE NE	
WDD3	Pesticide	Endrin ketone		U	43.4	µg/kg		NE	NE	
WDD3	Pesticide	gamma-BHC (Lindane)		U	21.7	µg/kg		100	23,000	
WDD3	Pesticide	gamma-Chlordane		U	21.7	µц/kg		NE	NE OR OR O	112000
WDD3	Pesticide	Heptachlor		U	21,7	μg/kg		42	29,000	
WDD3	Pesticide	Heptachlor epoxide	21.7	_	21,7	μg/kg		NE.	NE	
WDD3	Pesticide	Methoxychlor		U	217	μg/kg		NE	NE	
WDD3	Pesticide	Toxaphene	1080	U	1080	μg/kg		NE	NE	

1 de 1

SEDIMENT LOCATION*	DADAMETED*	ANAL VTC		QUALIFIER*	etection or Reporting imit*	NITS*	adiological ncertainty (±)	IY State- Unrestricted  se**	Y State-Restricted  Se _Industrial**	OE Cleanup riteria**
LUCATION*	PARAMETER*	ANALYTE	RESULTS	0	LAB	5		ZĎ	ات بر	90
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### *SEDIMENT LOCATION

SWSD009 - Site Background

SW-DUP (SWSD011) - Field Duplicate of surface water and sediment location SWSD011

#### *PARAMETER

VOC - Volatile Organic Compound PAH - Polycyclic Aromatic Hydrocarbon PCB - Polychlorinated Biphenyl

## *UNITS

pCi/g - picocuries per gram

mg/kg - milligrams per kilograms (ppm) μg/kg - micrograms per kilogram (ppb)

## *QUALIFIER

Validated Qualifier: J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

## Detection or Reporting Limit*

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Metal) - Method Detection Limit

Organic (VOC, PAH, PCB and Pesticides) - Reporting Limit ( gray shading)

** Values are provided for comparative purposes only. ARARs and media-specific cleanup goals will be evaluated independently future CERCLA and presented in decision documents that will be available for public comment.

## **US Dept of Energy:

DOH above-background surface soil cleanup criteria, averaged over topmost 6 in. (15 cm) of soil. Because there are no standards for radioactive constituents in sediment, these soil values (without background

# **New York State:

6 NYCRR PART 375

NY State- Unrestricted Use Soil Cleanup Objectives Table 375-6.8(a)

NY State- Restricted Use Soil Cleanup Objectives Table 375-6.8(b) -Industrial

NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228 concentrations
- b. Sum of uranium isotope concentrations (pCi/g).
- c. Total Mercury
- d. Sum of endosulfan I, endosulfan II, and endosulfan sulfate

NFSS WELL ID*		ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NX State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 6/12 a										
BO2W20S	Radiological	Radium-226		pCi/L	U	0,398	0.251	5ª		
BO2W20S	Radiological	Radium-228		pCi/L	U	0.978	0.568		5ª	
		Total Radium ^a	Non-detect	pCi/L	L			5°	5ª	100°
BO2W20S	Radiological	Thorium-228	0.235	pCi/L	U	0.322	0.230	15 ^b	NE.	400
BO2W20S	Radiological	Thorium-230	0.104	pCi/L	U	0.212	0,141	15 ^h	NE	300
BO2W20S	Radiological	Thorium-232	0.047	pCi/L	U	0.272	0.134	15 ^b	NE.	50
	· · · · · · · · · · · · · · · · · · ·	Total Thorium b	Non-detect	pCi/L	Γ			15 ^b	NE	NE
BO2W20S	Radiological	Uranium-234	5.160	pCi/L		0.092	0.518	27°	NE	600°
BO2W20S	Radiological	Uranium-235	0.320	pCi/L	П	0.043	0.143	27°	NE	600°
BO2W20S	Radiological	Uranium-238	4.060	nCi/L	П	0.068	0.459	27°	NE	600°
		Total Uranium c	9.540		=	10.600		27°	NE.	600°
BO2W20S	Water Quality	Total Dissolved Solids		mg/L		2,38		500 ^d	500	
BO2W20S	Water Quality	Alkalinity, Total as CaCO3		ing/L	Н	0.725		NE	NE	
BO2W20S	Anion	Chloride	12.700		Н	0.066		250 ^d	250	
BO2W20S	Anion	Fluoride	0.395		$\vdash$	0.033		4	1.5	
BO2W20S	Anion	Nitrate	0.000		J	0,033		10	10	
BO2W20S	Anion	Nitrite	0.000		J	0.033		1	1	
BO2W20S	Anion	Ortho-phosphate	-0.019		ij	0.066		NE	NE	
BO2W20S	Anion	Sulfate		mg/L		2		250 ^d	250	
BO2W20S	Metal	Aluminum	17.2		J	5		50-200 ^d	NE	
BO2W20S	Metal	Antimony		μg/L	U	0.5		6	3	
BO2W20S	Metal	Arsenic		µg/L	Ū	1,5		10	25	
BO2W20S	Metal	Barium	16.9	, –		0.5		2000	1000	
BO2W20S	Metal	Beryllium		μg/I.	Ü	0.1		4	11	0.0000000000000000000000000000000000000
BO2W20S	Metal	Boron	210	μg/L	П	40		NE	1000	
BO2W20S	Metal	Cadmium	0.12	μg/L	J	0.11		5	5	
BO2W20S	Metal	Calcium	72400	μg/L		200		NE	NE	
BO2W20S	Metal	Chromium		μg/L	J	1		- 100	50	
BO2W20S	Metal	Cobalt	0,84	, -	J	0.1		NE	NE.	
BO2W20S	Metal	Соррег		μg/L	Щ	0.2		1300	200	
BO2W20S	Metal	Iron		μg/L	Ш	10		300 ^d	300	
BO2W20S	Metal	Lead /		μg/L	U	0.5		15	25	
BO2W20S	Metal	Lithium	59.2			2		NE NE	NE NE	
BO2W20S	Metal	Magnesium	112000	,	Ш	50		NE	NE	
BO2W20S	Metal	Manganese	28.1		Ц	1		50°	300	
BO2W20S	Metal	Mercury	0,03		U	0.03		2	0.7	
BO2W20S	Metal	Nickel		μg/L	Щ	0,5		NE	100	
BO2W20S	Metal	Potassium	2000		<u>,  </u>	80		NE CO	NE NE	
BO2W20S	Metal	Selenium		μg/L	U			50	10	
BO2W20S	Metal	Silver		μg/L	U	0.2		100 ⁶	50	
BO2W20S	Metal	Sodium	58800		$\vdash$	800		NE 2	20000	
BO2W20S BO2W20S	Metal	ThalliumVanadium		μg/L /1	U	0.3		NE	NE 141	30055683634
	Metal			μg/L	-					
BO2W20S	Metal	Zinc	4.2	μg/L	J	2.6		5000°	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 6/12//	1	I		Ι	T	· · · · · · · · · · · · · · · · · · ·	Γ			
A45	Radiological	Radium-226		pCi/L	U	0.404	0,255	5ª		
Λ45	Radiological	Radium-228	0.217	F	U	0.429	0.260	5ª		
		Total Radium ^a	Non-detect	pCi/L	L			5ª	5ª	100°
A45	Radiological	Thorium-228	0,088	pCi/L	U	0,229	0,139	15 ^b	NE.	400
A45	Radiological	Thorium-230	0.043	pCi/L	U	0.203	0.101	15 ^b	NE.	300
A45	Radiological	Thorium-232	-0.020	pCi/L	U	0.203	0.082	15 ^b	NE	50
		Total Thorium ^b	Non-detect	pCl/L				15 ^b	NE	NE
A45	Radiological	Uranium-234	15.400	υCi/L		0.291	1.470	27°	NE	600°
Λ45	Radiological	Uranium-235	0,399	pCi/L		0,250	0.274	27°	NE	600°
A45	Radiological	Uranium-238	12,900	<u> </u>		0.182	1,340	27°	NE.	600°
	Transcragion.	Total Uranium c	28.699	pCi/L	—— =	31.888	μg/L	27°	NE.	600°
Λ45	Water Quality	Total Dissolved Solids		mg/L		2.38	μg/L	500 ^d	500	000
A45	Water Quality	Alkalinity, Total as CaCO3		mg/L	Н	1.45		NE	NE	
A45	Anion	Chloride	55.300			0.33		250 ^d	250	
Λ45	Anion	Fluoride	0.177	_	Н	0.033		4	1,5	
A45	Anion	Nitrate	0.177		J	0.033		10	10	
A45	Anion	Nitrite	0,100		Ü	0,033			1	
Λ45	Anion	Ortho-phosphate	0.200		Ū	0.066		NE	NE	
A45	Anion	Sulfate		mg/L	Ħ	5		250 ^d	250	
A45	Metal	Aluminum	ς.	μg/L	U	5		50-200 ^d	NE	
Λ45	Metal	Antimony	0.5	μg/L	Ū	0.5		6	3	
A45	Metal	Arsenic		μg/L	Ū	1.5		10	25	
A45	Metal	Barium		μg/L	Н	0,5		2000	1000	
Λ45	Metal	Beryllium		μg/L	U	0.1		4	11	
A45	Metal	Boron	73.9	μg/L,	П	4		NΕ	1000	
A45	Metal	Cadmium	0,11	μg/L	U	0,11		5	5	
A45	Metal	Calcium	257000	μg/L		200		NE	NE	
Λ45	Metal	Chromium	3.2	μg/L		1		100	50	
A45	Metal	Cobalt		μg/L	Ш	0.1		NE	NE	
A45	Metal	Соррег		μg/L	Ш	0.2		1300	200	
A45	Metal	lron	2200		Ш	10		300 ^d	300	
A45	Metal	Lead		μg/L	IJ	0,5		15	25	
A45	Metal	Lithium	66.8		Ш	2		NE	NE	
Λ45		Magnesium	140000	1. *	Ш	50		NE .	NE	
A45		Manganese		μg/L	إــا	1		50 ^d	300	
A45		Mercury		μg/L	U	0,03		2	0.7	
Λ45	Metal	Nickel		μg/L	Щ	0.5		NE	100	
A45	Metal	Potassium	4090		<b>,</b> ,	80		NE 50	NE 10	
A45	Metal	Selenium		μg/L ~	U	1		50	10	
∧45	Metal	Silver		μg/L	U	0.2		100 ^d	50	
A45 A45	Metal	Sodium Thallium	49200		71	800		NE.	20000 NE	
A45	Metal Metal	Teallium Vanadium		μg/L μg/L	U U	0,3		NE	NE 14	
					_					
Λ45	Metal	Zinc	367	μg/L	J	2.6		5000 ^d	NE	

NFSS WELL ID*		ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 6/12//2	2008					5 3 000				
A50	Radiological	Radium-226	0,422	pCi/L		0.401	0,285	5ª	5ª	1
A50	Radiological	Radium-228	0.190	pCi/L	U	0.562	0.328	5ª	. 5ª	100°
		Total Radium ^a	0.422	pCi/L	l			5ª	5 ⁿ	100"
A50	Radiological	Thorium-228	0.110	pCi/L	U	0.282	0,169	15 ^b	NE	400
Λ50	Radiological	Thorium-230	0.092	pCi/L	υ	0.224	0.138	15 ^b	NE	300
A50	Radiological	Thorium-232	0.107	pCi/L	U	0,224	0.146	15 ^b	NE	50
	<u> </u>	Total Thorium b	Non-detect	pCi/L				15 ^b	NE	NE
Λ50	Radiological	Uranium-234	5.690	pCi/L	_	0.056	0.530	27°	NE	600°
A50	Radiological	Uranium-235	0.397	pCi/L		0.041	0.156	27°	NE.	600°
A50	Radiological	Uranium-238		pCi/L		0.056	0.518	27°	NE.	600°
A30	Kadiological	Total Uranium c	11.527	•	=	12.808		27°	NE NE	600°
150	Water Ought				_	2.38	µg/L		500	000
A50 A50	Water Quality Water Quality	Total Dissolved Solids Alkalinity, Total as CaCO3	1330 441	mg/L mg/L		0,725		500 ^d NE	NE	
		Chloride							250	
A50	Anion Anion	Fluoride	19.600 0.328		_	0.132 0.033		250 ^d		
A50	Anion	Nitrate	0.328		J	0.033		10	1.5	
A50	Anion	Nitrite	0.100		U	0.033		1	10	
A50	Anion	Ortho-phosphate	0.200		Ü	0.055		NE	NE	
A50	Anion	Sulfate			H	5		250 ^d	250	
	Metal	Aluminum		mg/L	U	5		50-200 ^d		
A50 A50	Metal	Antimony		μg/L	U	0,5		30-200	NE 3	0.0000000000000000000000000000000000000
A50	Metal	Arsenic		μg/L μg/L	U	1.5		10	25	0.000
	Metal	Barium		µg/L µg/L	-	0.5		2000	1000	
A50	Metal	Beryllium		μg/L	U	0.1		2000	111	
	Metal	Boron		<u>με/L</u>	Ť	4		NE	1000	
Λ50	Metal	Cadmium		μg/L	Ų	0.11	148800000000	5	5	848888888
A50	Metal	Calcium	109000		-	200		NE	NE	
	Metal	Chromium		μg/L	J	1		100	50	
A50	Metal	Cobalt		μg/L	丁	0.1		NE	NE	
A50	Metal	Copper	3.7	μg/L		0,2		1300	200	
A50	Metal	Iron	606	цg/L	П	10		300 ^d	300	
A50	Metal	Lead		μg/L	U	0.5		15	25	
A50	Metal	Lithium	51.7	μg/L		2		NE	NE	
A50	Metal	Magnesium	141000	μg/L		50		NE.	NE	
A50	Metal	Manganese	. 33	μg/L		1		50 ^d	300	
		Mercury	0.03	μg/I.	U	0.03		2	0.7	
		Nickel		μg/L		0.5		NE	100	
		Potassium	2150			80		NE	NE	
	Metal	Selenium		μg/I.	U	1		50	10	
		Silver		μg/L	U	0.2		100 ^d	50	
		Sodium	76600		┚	800		NE	20000	
	Metal	Thallium		μg/L	U	0.3		2	NE	
	Metal	Vanadium		μg/L	U	3		NE	14	
A50	Metal	Zinc	3.8	μg/L	J	2.6		5000 ^d	NE NE	

	<u> </u>	ANALYTE	RESULI	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCL.s**	NY State Water Quality Stds.**	DOE DCGs*** pCi/L
Sample Date: 6/12//.	T									
GW-DUP(A50)	Radiological	Radium-226		pCi/L	U	0.416	0.291	5ª		
GW-DUP(A50)	Radiological	Radium-228	0,254	pCi/L	U	0.569	0.341	5ª	5 ^a	100°
		Total Radium ^a	Non-detect	pCi/L				5°	5ª	100ª
GW-DUP(A50)	Radiological	Thorium-228	0.075	pCi/L	U	0.181	0.109	15 ^b	NE	400
GW-DUP(A50)	Radiological	Thorium-230	0.469	pCi/L		0.122	0.195	15 ^b	NE	300
GW-DUP(A50)	Radiological	Thoriun-232	-0,015	pCi/L	U	0.113	0.042	15 ^b	NE	50
	1	Total Thorium ^b	0.469	υCi/L	1			15 ^b	NE	NE
GW-DUP(A50)	Radiological	Uranium-234	7.400	pCi/L	Ħ	0.107	0.669	27°	NE	600°
GW-DUP(A50)	Radiological	Uranjum-235	0.591	pCi/L		0.084	0.211	27°	NE.	600°
GW-DUP(A50)	Radiological	Uranium-238		pCi/L	†	0.079	0,610	27°	NE.	600°
GII-DOL(RSO)	Radiological	Total Uranium c	14.151	1^	=		μg/L	27°	NE.	600°
GW-DUP(A50)	Water Quality			·····	<del>,                                    </del>	2,38	µgrь	500 ^d	500	500
GW-DUP(A50)	Water Quality	Total Dissolved Solids Alkalinity, Total as CaCO3		mg/L mg/L	1	0,725		NE	NE	
GW-DUP(A50)	Anion	Chloride		-	$\vdash$	0.723		250 ^d	250	
GW-DUP(A50)	Anion	Pluoride	19.700		$\vdash$	0.132		230	1.5	
GW-DUP(A50)	Anion	Nitrate	0,317 0,100		Ü	0,033		10	1,3	
GW-DUP(A50)	Anion	Nitrite	0.100		Ū	0.033		10	10	
GW-DOI (A50) GW-DUP(A50)	Anion	Ortho-phosphate	0.100		U	0.055		NE.	NE.	
GW-DUP(A50)	Anion	Sulfate	585	mg/L	۲	5		250 ^d	250	
GW-DUP(A50)	Metal		9.5		J	5		50-200 ^d	NE	
GW-DUP(A50)	Metal	Aluminum Antimony	9.5 0.5	μg/L	n 1	0.5		30-200 6	NE 3	
GW-DUP(A50)	Metal	Arsenic	1,5	μg/L μg/L	U	1,5	100 200 a 200 a 10	10	25	
`	Metal	Barium	1.3	μg/L μg/L	-	0.5		2000	1000	
GW-DUP(A50)	Metal	Beryllium	1.0	μg/L μg/L	υ	0.3		2000	11	300000000000000000000000000000000000000
GW-DUP(A50)	Metal	Boron	173	μg/L	ı	4		NE.	1000	
	Metal	Cadmium	0.11	μg/L	U	0.11		5	5	
GW-DUP(A50)	Metal	Calcium	110000	μg/L,	١	200		NE	NE	
GW-DUP(A50)	Metal	Chromium	6	μg/L	j	1		100	50	
GW-DUP(A50)		Cobalt	0.88	μg/L	]	0.1		NE	NE	
GW-DUP(A50)	Metal	Copper	4	μg/L	П	0.2		1300	200	
GW-DUP(A50)	Metal	Iron	629	μg/L		10		300 ^d	300	
GW-DUP(A50)	Metal	Lead	0.5	μg/L	U	0.5		15	25	
GW-DUP(A50)	Metal	Lithium		μg/L	П	2		NE	NE	
GW-DUP(A50)	Metal	Magnesium	138000	μg/L		50		NE	NE	
GW-DUP(A50)	Metal	Manganese	46.1	μg/L		1		50 ^d	300	
GW-DUP(A50)	Metal	Mercury	0.03	μg/L	U	0.03		2	0.7	
		Nickel		μg/L,	П	0.5		NE	100	
<u> </u>		Potassium	2250		Ш	80		NE	NE	
	Metal	Selenium		μg/L	U	1		50	10	
		Silver		μg/L	Ü	0.2		100 ^d	50	
		Sodium	73200		$\prod$	800		NE	20000	
		Thallium		µg/L	U	0.3		2	NE	
		Vanadium		μg/L	U	3		NE	14	
GW-DUP(A50)	Metal	Zinc	4.1	μg/L	ĵ	2.6		5000 ^d	NE	

NESS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (+)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCVL
Sample Date: 6/13//	2008									
OW04B	Radiological	Radium-226	0.275	pCi/L	U	0.371	0.243	. 5ª	5°	100°
OW04B	Radiological	Radium-228	0.270	pCi/L	U	0.735	0.435	5ª	5ª	100°
		Total Radium ^o	Non-detect	pCi/L			•	5ª	5°	100°
OW04B	Radiological	Thorium-228	0.137	pCi/L	U	0.342	0.204	15 ^b	NE	400
OW04B	Radiological	Thorium-230	1,300	pCi/L	Г	0,202	0.383	15 ^b	NE	300
OW04B	Radiological	Thorium-232	0.084	pCi/L	U	0,242	0,140	15 ^b	NE	50
		Total Thorium b	1.300	pCi/L	H			15 ^b	NE	NE
OW04B	Radiological	Uranium-234	24.000	_	$\vdash$	0,126	1.310	27°	NE.	600°
OW04B	Radiological	Uranium-235		pCi/L	$\vdash$	0.148	0.330	27°	NE.	600°
OW04B	Radiological	Uranium-238	23,300	•	1	0.126	1.290	27°	NE.	600°
JO 11 04 15	Ikadiological	Total Uranium		pCi/L	<u> </u>	53.889		27°	NE NE	600°
OW04B	hy				$\overline{\Box}$		μg/L			000
OW04B	Water Quality Water Quality	Total Dissolved Solids Alkalinity, Total as CaCO3	302	mg/L	-	2.38 0.73		500 ^d NE	500000 NE	
OW04B				mg/L	┢					
OW04B	Anion	Chloride Fluoride		mg/L	Н	0,66		250 ^d	250	
OW04B	Anion Anion	Nitrate		mg/L	U	0.033		10	1.5	
OW04B	Anion	Nitrite	0,100 0,100		U	0.033		10	10	
OW04B	Anion	Ortho-phosphate	0.200		U	0.066		NE	NE.	
OW04B	Anion	Sulfate		mg/L	ľ	5.000		250 ^d	250	
OW04B	Metal	Aluminum	5.1	nig/L μg/L	J	5,00		50-200 ^d	NE	
OW04B	Metal	Antimony		μg/L μg/L	U	0.5		30-200	250	
OW04B	Metal	Arsenic		րց/L	Ü	1.5		10	250	
OW04B	Metal	Barium		ug/L	ij	0.5		2000	1000	
OW04B	Metal	Beryllium		µg/L	Ū	0.1		4	11	
OW04B	Metal	Boron		μg/L	Ť	40,00		NE	1000	
OW04B	Metal	Cadmium		μg/L	U	0.11		5	5	
OW04B	Metal	Calcium	201000		Ħ	200		NE	NE	
OW04B	Metal	Chromium		μg/L	J	1		100	50	
OW04B	Metal	Cobalt	0.89	μg/L	J	0.1		NE	NE	
OW04B	Metal	Copper	4.8	μg/L		0.2		1300	200	
OW04B	Metal	lron	758	μg/L		10.00		300 ^d	300	
OW04B	Metal	Lead	0.5	μg/L	U	0.5		15	25	
OW04B	Metai	Lithium	35.4	μg/L		2		NE	NE	
OW04B	Metal	Magnesium	138000	μg/L		50.00		NE	NE	
OW04B	Metal	Manganese	33.8	μg/L	Ш	1		50 ^d	300	
OW04B		Mercury		μg/L	U	0.03		2	0.7	
OW04B	Metal	Nickel		µg/L	П	0.5		NE	100	
OW04B		Potassium	2220		Ш	80,00		NE	NE	
OW04B	Metal	Selenium		μg/L	J	1		50	10	
OW04B	Metal	Silver		μg/L	U	0.2		100 ^d	50	
OW04B	Metal	Sodium	62700		Ц	800		NE	20000	
OW04B	Metal	Thallium		μg/L	U	0.3		2	NE	
	Metal	Vanadium		μg/L	U	3		NE	14	
OW04B	Metal	Zinc	5.5	μg/L	J	2.6		5000 ^d	NE	01000

Total Radium*	NFSS WELL ID*	PARAMETER*	ANALYTE	RESUL/1	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)		NX State Water Quality Stds.**	DOE DCGs** pCi/L
OW06B   Radiological   Radium-228			Test M. How the particular and the second						77		
	OW06B	Radiological	Radium-226	0.079	pCi/L	L	0.641	0.337			
OWO6B         Radiological         Thorium-228         0.110         pC/L         U         0.355         0.201         1.5°         NE         400           OWO6B         Radiological         Thorium-232         0.036         pC/L         U         0.144         0.104         1.5°         NE         300           OWO6B         Radiological         Thorium-232         4.036         pC/L         U         0.220         0.078         15°         NE         300           OWO6B         Radiological         Uranium-235         0.57°         pC/L         0.161         1.100         27°         NE         600°           OWO6B         Radiological         Uranium-238         7.81         pC/L         0.138         0.299         27°         NE         600°           OWO6B         Radiological         Uranium-238         7.81         pC/L         0.138         0.299         27°         NE         600°           OWO6B         Radiological         Uranium-238         7.81         pC/L         0.138         0.799         27°         NE         600°           OWO6B         Water Quality         All Christon         18.19         pC/L         0.138         0.979         27°	OW06B	Radiological		0.327	pCi/L	U	0.415	0.272	5 ^a	5ª	160°
OWO6B         Radiological         Thorium-232         0.056 pC/L         U         0.184 on 1.04 lbs         1.5° NE         300           OWO6B         Radiological         Thorium-232         -0.036 pC/L         U         0.20 o.078 lbs         1.5° NE         SS           OWO6B         Radiological Uranium-234         Non-detect pC/L			Total Radium ^a	0.079	pCi/L				5ª	5ª	100
Ownorm	OW06B	Radiological	Thorium-228	0.110	pCi/L	U	0.355	0.201	15 ^b	NE	400
	OW06B	Radiological	Thorium-230	0,056	pCi/L	υ	0.184	0.104	15 ^b	NE	300
	OW06B	Radiological	Thorium-232	-0.036	pCi/L	U	0,220	0.078	15 ^b	NE	50
OW06B         Radiological         Uranium 234         9.82 pCi/L         0.161         1.100         27°         NE         600°           OW06B         Radiological         Uranium 23S         7.81 pCi/L         0.103         0.93         27°         NE         600°           OW06B         Radiological         Uranium 23S         7.81 pCi/L         0.138         0.79         27°         NE         600°           OW06B         Water Quality         Total Uranium 23S         7.81 pCi/L         20.220 pg/L         27°         NE         600°           OW06B         Water Quality         Total Dissolved Solds         1300 mg/L         2.38         500°         500           OW06B         Anion         Claoride         33.000 mg/L         2.238         500°         500           OW06B         Anion         Claoride         33.000 mg/L         2.033         ME         NE         NE           OW06B         Anion         Nitrate         0.194 mg/L         0.033         4         1.5         900           OW06B         Anion         Nitrate         0.109 mg/L         0.0033         1         1         1           OW06B         Anion         Nitrate         0.200 mg/L					-	Ħ					
OW06B         Radiological         Uranium-235         0.57 pCi/L         0.103         0.293         27°         NE         600°           OW06B         Radiological         Uranium-238         7.81 pCi/L         0.138         0.979         27°         NE         600°           OW06B         Water Quality         Total Dissolved Solids         1300 mg/L         20.220 mg/L         20.23         500°         500           OW06B         Water Quality         Alkalinity, Total as CaCO3         580 mg/L         0.73         NE         NE           OW06B         Anion         Chloride         33.000 mg/L         0.66         25°         25°         250           OW06B         Anion         Nitrate         0.194 mg/L         0.033         10         10           OW06B         Anion         Nitrate         0.194 mg/L         U         0.033         1         1           OW06B         Anion         Ortho-phosphate         0.200 mg/L         U         0.033         1         1           OW06B         Anion         Ortho-phosphate         0.200 mg/L         U         0.066         NE         NE           OW06B         Anion         Ortho-phosphate         0.200 mg/L         U	OW06B	Radiological			*		0.161	1 100			
Ownorm			h			Н					
					1	Н					
OW06B         Water Quality         Total Dissolved Solids         1300         mg/L         2.38         500°         500           OW06B         Water Quality         Alkalinity, Total as CaCO3         580         mg/L         0.73         NE         NE         NE           OW06B         Anion         Claide         33,300         mg/L         0.66         250°         250           OW06B         Anion         Fluoride         0.277         mg/L         0.033         4         1.5           OW06B         Anion         Nitrate         0.190         mg/L         0.033         1         1         1           OW06B         Anion         Ortho-phosphate         0.200         mg/L         0         0.033         1         1         1           OW06B         Anion         Sulfate         517         mg/L         0         0.066         NE         NE         NE           OW06B         Anion         Sulfate         517         mg/L         0         0.066         NE         NE         DNE           OW06B         Metal         Antimony         0.5         mg/L         0         0.066         NE         10         2.5         2.50	OWOOD	Kadiological			•	Ш					-
OW06B	A	I				=		μg/L			600
OW06B					_	Н					
DW06B		` ,				Ш					
Owo6B						Ш			250"		
DW06B						Ш			4		
Owo6B		<b></b>								10	
DW06B									-	1	
DW06B   Metal   Aluminum   S   ng/L   U   S.00   S0-200 ^d   NE						Ü					
DW06B   Metal   Antimony   D.S.   pg/L   U   D.S.   6   3   DW06B   Metal   Arsenic   DW06B   Metal   Barium   D.S.   pg/L   U   D.S.   DW06B   Metal   Barium   D.S.   pg/L   U   D.S.   DW06B   Metal   Barium   D.S.   pg/L   U   D.S.   DW06B   Metal   Beryllium   D.   pg/L   U   D.   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   D.   U   U   U   U   U   U   U   U   U						Щ					
DW06B   Metal   Arsenic   1.5									50-200°	NE	
DW06B   Metal   Barium   10.5   µg/L   0.5   2000   1000   DW06B   Metal   Beryllium   0.1   µg/L   U   0.1   4   11   DW06B   Metal   Boron   63.7   µg/L   U   0.1   5   5   5   DW06B   Metal   Cadmium   0.11   µg/L   U   0.11   5   5   5   DW06B   Metal   Calcium   113000   µg/L   2000   NE   NE   DW06B   Metal   Chromium   3.2   µg/L   J   1   100   50   DW06B   Metal   Chromium   3.2   µg/L   J   1   100   50   DW06B   Metal   Cobalt   1.4   µg/L   0.1   NE   NE   DW06B   Metal   Copper   2.5   µg/L   0.2   1300   200   DW06B   Metal   Tron   1000   µg/L   10.00   300°   300   DW06B   Metal   Lead   0.51   µg/L   J   0.5   15   25   DW06B   Metal   Lithium   90.2   µg/L   J   0.5   NE   NE   DW06B   Metal   Lithium   90.2   µg/L   J   0.5   NE   NE   DW06B   Metal   Manganese   1.2   µg/L   J   50.00   NE   NE   DW06B   Metal   Manganese   1.2   µg/L   J   50.00   NE   NE   DW06B   Metal   Mercury   0.03   µg/L   J   0.5   NE   100   DW06B   Metal   Nickel   1.4   µg/L   J   0.5   NE   100   DW06B   Metal   Nickel   1.4   µg/L   U   0.03   2   0.7   DW06B   Metal   Nickel   1.4   µg/L   U   0.5   NE   100   DW06B   Metal   Nickel   1.4   µg/L   U   0.5   NE   100   DW06B   Metal   Solenium   1   µg/L   U   J   50   10   DW06B   Metal   Solenium   1   µg/L   U   J   50   10   DW06B   Metal   Solenium   1   µg/L   U   J   50   10   DW06B   Metal   Solenium   63800   µg/L   80.00   NE   NE   DW06B   Metal   Solenium   63800   µg/L   80.00   NE   DW06B   Metal   Solenium   63800   µg/L   80.00   NE   DW06B   Metal   Solenium   1   µg/L   U   0.3   2   NE   DW06B   Metal   Thallium   0.3   µg/L   U   0.3   DW06B   Metal   Thallium   0.3   µg/L   U   0.3   DW06B   Metal   Thallium   0.3   µg/L   U   J   J   DW06B   Metal   Vanadium   3   µg/L   U   J   J   J   DW06B   Metal   Vanadium   3   µg/L   U   J   J   J   DW06B   Metal   Vanadium   3   µg/L   U   J   J   J   DW06B   Metal   Vanadium   3   µg/L   U   J   J   J   DW06B   Metal   Vanadium   3   µg/L   U   J   J   J   J   J   J   J   J   J									6	3	
December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December   December						υ					
DW06B   Metal   Boron   63.7 μg/L   4.00   NE   1000									2000		
OW06B         Metal         Cadmium         0.11 μg/L         U         0.11         g/L         U         0.11         s         s         s           OW06B         Metal         Calcium         113000 μg/L         2000         NE         NE         NE           OW06B         Metal         Chromium         3.2 μg/L         J         I         1000 50         NE         NE<						U			4		
DW06B   Metal   Calcium   113000   μg/L   200   NE   NE   NE   DW06B   Metal   Chromium   3.2   μg/L   J   I   100   50   DW06B   Metal   Cobalt   1.4   μg/L   0.1   NE   NE   DW06B   Metal   Copper   2.5   μg/L   0.2   1300   200   DW06B   Metal   Iron   1000   μg/L   10.00   300°   300   DW06B   Metal   Lead   0.51   μg/L   J   0.5   15   25   DW06B   Metal   Lithium   90.2   μg/L   2   NE   NE   DW06B   Metal   Magnesium   174000   μg/L   50.00   NE   NE   DW06B   Metal   Manganese   122   μg/L   J   5.0°   300   DW06B   Metal   Metal   Mercarry   0.03   μg/L   U   0.03   2   0.7   DW06B   Metal   Nickel   14.3   μg/L   0.5   NE   100   DW06B   Metal   Potassium   2580   μg/L   80.00   NE   NE   DW06B   Metal   Sclenium   1   μg/L   U   0.2   100°   50   DW06B   Metal   Sclenium   1   μg/L   U   0.2   100°   50   DW06B   Metal   Sclenium   63800   μg/L   800   NE   20000   DW06B   Metal   Thallium   0.3   μg/L   U   0.3   2   NE   DW06B   Metal   Thallium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Thallium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Thallium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Thallium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06B   DW06B   Metal   Vanadium   0.3   μg/L   U   0.3   NE   14   DW06						7.1			NE	1000	
Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe   Owe						Ů			2	3	
OW06B         Metal         Cobalt         1.4 μg/L         0.1         NE         NE           OW06B         Metal         Copper         2.5 μg/L         0.2         1300         200           OW06B         Metal         Iron         1000 μg/L         10.00         300°         300°           OW06B         Metal         Lead         0.51 μg/L         J         0.5         15         25           OW06B         Metal         Lithium         90.2 μg/L         2         NE         NE           OW06B         Metal         Magnesium         174000 μg/L         50.00         NE         NE           OW06B         Metal         Manganese         122 μg/L         I         50°         300           OW06B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         NE           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         NE           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         NE         NE           OW06						$\vdash$	200				
OW06B         Metal         Copper         2.5 μg/L         0.2         1300         200           OW06B         Metal         froa         1000 μg/L         10.00         300 ^d 300           OW06B         Metal         Lead         0.51 μg/L         J         0.5         15         25           OW06B         Metal         Lithium         90.2 μg/L         2         NE         NE           OW06B         Metal         Magnesium         174000 μg/L         50.00         NE         NE           OW06B         Metal         Manganese         122 μg/L         I         50°         300           OW06B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         100           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         NE           OW06B         Metal         Solenium         2580 μg/L         80.00         NE         NE           OW06B         Metal         Silver         0.2 μg/L         U         0.2         100 ^d 50						H	0.1				
DW06B   Metal   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa   Iroa		_			1.4	H					
OW06B         Metal         Lead         0.51 μg/L         J         0.5         15         25           OW06B         Metal         Lithium         90.2 μg/L         2         NE         NE           OW06B         Metal         Magnesium         174000 μg/L         50.00         NE         NE           OW06B         Metal         Manganese         122 μg/L         I         50.00         NE         NE           OW06B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         100           OW06B         Metal         Potassium         2580 μg/L         80.00         NE         NE           OW06B         Metal         Sclenium         1 μg/L         U         1         50         10           OW06B         Metal         Silver         0.2 μg/L         U         0.2         100 ^d 50           OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U         0.3 <td< td=""><td>***************************************</td><td></td><td></td><td>······</td><td></td><td>$\vdash$</td><td></td><td></td><td></td><td></td><td></td></td<>	***************************************			······		$\vdash$					
DW06B   Metal   Lithium   90.2 μg/L   2   NE   NE   NE						T					
OW06B         Metal         Magnesium         174000 μg/L         50.00         NE         NE           OW06B         Metal         Manganese         122 μg/L         1         50.00         300           OW06B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         100           OW06B         Metal         Potassium         2580 μg/L         80.00         NE         NE           OW06B         Metal         Selenium         1 μg/L         U         1         50         10           OW06B         Metal         Silver         0.2 μg/L         U         0.2         100 ^d 50           OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U         0.3         NE         14						-	2				
DW66B         Metal         Manganese         122 μg/L         I         50°         300           DW66B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           DW66B         Metal         Nickel         14.3 μg/L         0.5         NE         100           DW66B         Metal         Potassium         2580 μg/L         80.00         NE         NE           DW66B         Metal         Sclenium         1 μg/L         U         1         50         10           DW66B         Metal         Silver         0.2 μg/L         U         0.2         100°         50           DW66B         Metal         Sodium         63800 μg/L         800         NE         20000           DW66B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           DW66B         Metal         Vanadium         3 μg/L         U         0.3         NE         14	OW06B						50.00				
DW06B         Metal         Mercury         0.03 μg/L         U         0.03         2         0.7           DW06B         Metal         Nickel         14.3 μg/L         0.5         NE         100           DW06B         Metal         Potassium         2580 μg/L         80.00         NE         NE           DW06B         Metal         Sclenium         1 μg/L         U         1         50         10           DW06B         Metal         Silver         0.2 μg/L         U         0.2         100 ^d 50           DW06B         Metal         Sodium         63800 μg/L         800         NE         20000           DW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           DW06B         Metal         Vanadium         3 μg/L         U         0.3         NE         14							1				
OW06B         Metal         Nickel         14.3 μg/L         0.5         NE         100           OW06B         Metal         Potassium         2580 μg/L         80.00         NE         NE           OW06B         Metal         Sclenium         1 μg/L         U         1         50         10           OW06B         Metal         Silver         0.2 μg/L         U         0.2         100 ^d 50           OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U         3         NE         14						П	0.03		2		
OW06B         Metal         Potassium         2580 μg/L         80.00         NE         NE           OW06B         Metal         Sclenium         1 μg/L         U 1 1         50         10           OW06B         Metal         Silver         0.2 μg/L         U 0.2         100 ^d 50           OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U 0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U 3         NE         14					_	Ť			NE.		
DW06B         Mctal         Sclenium         1 μg/L         U 1 1         50         10           DW06B         Metal         Silver         0.2 μg/L         U 0.2         100 ^d 50           DW06B         Metal         Sodium         63800 μg/L         800         NE         20000           DW06B         Metal         Thallium         0.3 μg/L         U 0.3         2         NE           DW06B         Metal         Vanadium         3 μg/L         U 3         NE         14						$\dashv$					
OW06B         Metal         Silver         0.2 μg/L         U         0.2 μg/L         100 ^d 50           OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U         3         NE         14						U	1				
OW06B         Metal         Sodium         63800 μg/L         800         NE         20000           OW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U         3         NE         14							0.2				
OW06B         Metal         Thallium         0.3 μg/L         U         0.3         2         NE           OW06B         Metal         Vanadium         3 μg/L         U         3         NE         14						Ť					
DW06B Metal Vanadium 3 μg/L U 3 NE 14						U			2		
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s						_	3		NE		
	OW06B	Metal	Zinc	<del></del>		j	2.6			NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs***	NY State Water Quality Stds.**	DOE DCGs** pC/L
Sample Date: 6/10 a	ad 6/11/2008				days					
OW13B	Radiological	Radium-226	0.490	pCi/L		0.375	0.286			
OW13B	Radiological	Radium-228	0.524	pCi/L	U	0.706	0.447	5ª	5°	100°
		Total Radium ^a	0.490	pCi/L					5ª	100ª
OW13B	Radiological	Thorium-228	0.309	pCi/L		0.206	0.180	15 ^b	NE	400
OW13B	Radiological	Thorium-230	0.168	pCi/L		0.126	0.122	15 ^b	NE	300
OW13B	Radiological	Thorium-232	0,004	nCi/L	U	0.109	0.041	15 ^b	NE	50
		Total Thorium ^b	0.477	vCi/L	Ť			15 ^b	NE	NE
OW13B	Radiological	Uranium-234	11.600	pCi/L	Н	0.034	0.759	27°	NE NE	600°
OW13B	Radiological	Uranium-235	0.538	•	H	0.042	0.182	27°	NE.	600°
OW13B	Radiological	Uranium-238	9.200	•	Н	0.042	0.182	27°	NE NE	600°
OW13B	Radiological	Total Uranium c			щ			27°	NE NE	600°
	lur . a u		21.338		1/6		μg/L			000
OW13B	Water Quality	Total Dissolved Solids	2120	~	Н	2.38		500 ^d	500	
OW13B	Water Quality	Alkalinity, Total as CaCO3		mg/l.	Н	0.725		NE - ned	NE.	
OW13B	Anion	Chloride	33.800		Н	0.33		250 ^d	250	
OW13B	Anion	Fluoride	0.355			0.033		4	1.5	
OW13B	Anion	Nitrate	0.100		U	0.033		10	10	
OW13B OW13B	Anion Anion	Nitrite Ortho-phosphate	0.100 0.200		U	0.033 0.066		NE	NE	
		Sulfate			쒸			250 ^d	250	
OW13B	Anion		1050							
OW13B	Metal	Aluminum		μg/L	1.1	0.5		50-200°	NE 3	
OW13B OW13B	Metal Metal	Antimony Arsenic		μg/L μg/L	U	1,5		10	25	
OW13B	Metal	Barium		րց/L րց/L	ď	0.5		2000	1000	
OW13B OW13B	Metal	Beryllium		μg/L μg/L	U	0.3		2000	1000	
OW13B	Metal	Boron	106		H	4		NE	1000	
OW13B	Metal	Cadmium		<u>це/L</u>	U	0,11		5	5	
OW13B	Metal	Calcium	164000		H	200		NE	NE	
OW13B	Metal	Chromium		μg/I	J	1		100	50	
OW13B	Metal	Cobalt	0.94		J	0.1		NE	NE	
OW13B	Metal	Copper	6	μg/L		0.2		1300	200	
OW13B	Metal	Iron	1060	μg/L		10		300 ^d	300	
OW13B	Metal	Lead		μg/L	U	0.5		15	25	
OW13B	Metal	Lithium	87.5	μg/L		2		NE	NE	
OW13B	Metal	Magnesium	258000	μg/L		50		NE.	NE	
OW13B	Mctal	Manganese	13.3	μg/L		1		50 ^d	300	
OW13B	Metal	Mercury	0.03	μg/L	U	0.03		2	0.7	
OW13B	Metal	Nickel		μg/L		0.5		NE	100	
OW13B		Potassium	2310			80		NE	NE	
OW13B	Metal	Selenium	1	μg/L	U	1		50	10	
OW13B	Metal	Silver		μg/L	U	0.2		100 ^d	50	
OW13B		Sodium	80200			800		NE	20000	
OW13B	Metal	Thallium		μg/L	U	0.3		2	NE	
		Vanadium		μg/L	υ[	3		NE	14	
OW13B	Metal	Zinc	6.3	μg/L	J	2.6		5000 ^d	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER"	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 6/13//	AND DESCRIPTION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERT									
OW15B	Radiological	Radium-226	0,228	pCi/L	U	0,409	0.253	5 ^a	5ª	
OW15B	Radiological	Radium-228	0.811	pCi/L	Ш	0.701	0,466	. 5ª	5ª	100°
		Total Radium ^a	0.811	pCi/L				5ª	5°	100°
OW15B	Radiological	Thorium-228	0.065	pCi/L	U	0.222	0.126	15 ^b	NE	400
OW15B	Radiological	Thorium-230	0,181	pCi/L		0,119	0.117	15 ^b	NE	300
OW15B	Radiological	Thorium-232	0.016	pCi/L	U	0.101	0,047	15 ⁶	NE	50
		Total Thorium b	0.181	pCi/L				15 ^b	. NE	NE
OW15B ·	Radiological	Uranium-234	<b></b>	pCi/L	$\vdash$	0.107	0,503	27°	NE.	600°
OW15B	Radiological	Uranium-235		pCi/L	$\vdash$	0.084	0.129	27°	NE	600°
OW15B	Radiological	Uranium-238		pCi/L	Н	0.084	0.129	27°	NE NE	600°
OWIDD	Radiorogical	Total Uranium c								$\vdash$
OTT21 ers			7,609	pCi/L	=	8.454	μg/L	27°	NE.	600°
OW15B	Water Quality	Total Dissolved Solids	777	mg/L	Н	2,38		500 ^d	500	
OW15B	Water Quality	Alkalinity, Total as CaCO3	315	mg/L	Н	0.73		NE	NE	
OW15B	Anion	Chloride				0.066		250 ^d	250	8388 84388
OW15B	Anion	Fluoride	0.564	mg/L	Ļ	0.033		4	1.5	30,000,000,00
OW15B	Anion	Nitrate	6.810		J	0.033		10	10	
OW15B	Anion	Nitrite	0.100	mg/L	U	0.033		I	1	
OW15B	Anion	Ortho-phosphate	0,200	mg/L	υ	0.066		NE.	NE	84.50
OW15B	Anion	Sulfate	294	mg/L		2		250 ^d	250	
OW15B	Metal	Aluminum	73.6	μg/L,	Ш	5.00	101 (61 (61 )	50-200 ^d	NE	
OW15B	Metal	Antimony	0.5	μg/L	U	0.5		6	3	60,636,863,65
OW15B	Metal	Arsenic	1.5	μg/L	Ü	1.5		10	25	
OW15B OW15B	Metal	Barium	20.8	μg/L	J	0.5		2000	1000	
OW15B	Metal Metal	Beryllium		μg/L	U	0,1		4	11	\$100,000
OW15B	Metal	Boron Cadmium	0.11	μg/L μg/L	U	4.00 0.11		NE	1000	
OW15B	Metal	Calcium	81100		U	200		5 NE	NE	
OW15B	Metal	Chromium	7.7	<u>ву</u> г. µg/L	H	200		100	50	20.000
OW15B	Metal	Cobalt	0,43	μg/L	J	0.1		NE	NE	
OW15B	Metal	Copper	6.4	<u>нв/г.</u> µg/L	-	0.1		1300	. 200	
OW15B	Metal	Iron		<i>µg/L</i> µg/L	$\vdash$	10,00		300 ^d	300	
OW15B	Metal	Lead		μg/L μg/L	U	0.5	000000000000000000000000000000000000000	15	25	
OW15B	Metal	Lithium		μg/L	0	2	30.000.000.00	NE.	NE	
OW15B	Metal	Magnesium	87100		$\vdash$	50,00		NE.	NE NE	
OW15B	Metal	Manganese		ng/L	J	1		50 ^d	300	
OW15B	Metal	Mercury		րց/Լ, ոց/Լ,	U	0.03		20 2	0.7	
OW15B	Metal	Nickel		μg/L μg/L	Ŭ	0.03	83 83 8 8 8	NE.	100	
OW15B		Potassium	1290	μg/L μg/L	$\vdash$	80.00		NE	NE	
OW15B		Selenium		μg/L μg/L	U	1	100000000000000000000000000000000000000	50	10	***************************************
		Silver		<u>не/1/</u> це/L	U	0.2		100 ^d	50	
		Sodium	36800	րց/L րց/L	7	800	resease established.	NE	20000	
OW15B		Thallium		μg/L μg/L	U	0.3		2	NE	200000000000000000000000000000000000000
		Vanadium		μg/L	U	3		NE.	14	
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NFSS WELL ID*	PARAMETER*	ANALYTE	RESUL1	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs*** pCi/L
Sample Date: 6/16/2	1	I			T	I	T	l	I .	
OW17B	Radiological	Radium-226	<del> </del>	pCi/L	╄	0.686	0.353	5³		
OW17B	Radiological	Radium-228	0.826	<del>'</del>	╄	0.429	0.354	5ª	<del></del>	
		Total Radium ^a	0.938		_			5*		
OW17B	Radiological	Thorium-228	0.119	pCi/L	υ	0.289	0.174	15 ^b	NE	400
OW17B	Radiological	Thorium-230	0.053	pCi/L	U	0.138	0.087	15 ^b	NE	300
OW17B	Radiological	Thorium-232	0.021	pCi/L	U	0.138	0,063	15 ^b	NE	50
		Total Thorium b	Non-detect	pCi/L	Π			15 ^b	NE	NE
OW17B	Radiological	Uranium-234		pCi/L		0.070	0.543	27°	NE	600°
OW17B	Radiological	Uranium-235		pCi/L	Н	0.143	0.157	27°	NE	600°
OW17B	Radiological	Uranium-238		pCi/L	┢	0.070	0.452	27°	NE NE	600°
UWIJB	Radiological	Total Uranium c			67					600°
				pCi/L			μg/L	27°	NE	600
OW17B	Water Quality	Total Dissolved Solids		ıng/L	1	2.38		500°	500	
OW17B	Water Quality	Alkalinity, Total as CaCO3	422	mg/L	Н	1.45		NE	NE NE	
OW17B	Anion	Chloride	10.900		Ш	0.066		250 ^d	250	
OW17B	Anion	Fluoride	0.307		Ш	0.033		4	1.5	
OW17B	Anion	Nitrate	0,100		U	0.033		10	10	
OW17B	Anion	Nitrite		mg/L	U	0.033		1	I	
OW17B	Anion	Ortho-phosphate	0.200		U	0.066		NE	NE	
OW17B	Anion	Sulfate		mg/L	Ш	10		250 ^d	250	
OW17B	Metal	Aluminum		μg/L	Ш	5,00		50-200 ^d	NE.	
OW17B	Mctal	Antimony		μg/L	U	0.5		6	3	
OW17B	Metal	Arsenic		μg/L	U	1.5		10	25	
OW17B	Metal	Barium		μg/L	Ш	0.5		2000	1000	
OW17B	Metal	Beryllium		μg/L	U	0.1		4	11	
OW17B	Metal	Boron		μg/L	Ш	4.00		NE NE	1000	
OW17B	Metal	Cadmium		μg/L	U	0.11		5	5	
OW17B	Metal	Calcium	79500		Ш	200		NE	NE	
OW17B	Metal	Chromium		μg/L	Ш	1		100	50	
OW17B	Metal	Cobalt		μg/L	J	0,1		NE	NE	
OW17B	Metal	Copper		μg/L	$\blacksquare$	0.2		1300	200	
OW17B	Metal	[ron		μg/L	Ш	10.00		300 ^d	300	
OW17B	Metal	Lead		μg/L	J	0.5		1.5	25	
OW17B	Metal	Lithium		μg/L	Щ	2		NE.	NE	
OW17B	Metal	Magnesium	124000			50.00		NE,	NE NE	
OW17B		Manganese	25.9		Ш	1		50 ^d	300	
OW17B		Mercury		μg/L	U	0.03		2	0.7	
OW17B		Nickel		μg/L	Щ	0.5		NE	100	
OW17B	Metal	Potassium	1870		Ш	80,00		NE	NE	
OW17B	Metal	Selenium		μg/L	U	1		50	10	
OW17B	Metal	Silver		μg/L	U	0.2		100 ^d	50	
OW17B	Metal	Sodium	60400		Ш	800		NE_	20000	
OW17B	Metal	Thallium		μg/L	J	0.3		2	NE	
OW17B	Metal	Vanadium		μg/L	Ų	3		NE NE	14	
OW17B	Metal	Zinc	8.1	μg/L	ı	2,6	884 62 1 1 1 1 1 1 1	5000 ^d	NE	

NFSS WELL ID*	PARAMETER*		RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs***	NY State Water Quality Stds.**	DOE DCGs**
	Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of the Capacity of th	Anions, Alk & TDS on 6/17/2008	1	615	N. MA			0.76		C 0.00
313	Radiological	Uranium-234	19.400	-	-	0,161	1.660	27°	NE	
313	Radiological	Uranium-235		pCi/L		0.199	0,385	27°	NE	
313	Radiological	Uranium-238	14.400		_	0.207	1.430	27°	NE	-
		Total Uranium c	34.627	r e	=	38.474	μg/L	27°	NE.	300,000,000,000,000,000,000,000,000,000
313	Water Quality	Total Dissolved Solids		mg/L	L	2,38		500 ^a	500	
313	Water Quality	Alkalinity, Total as CaCO3		mg/L	<u> </u>	0.725		NE	NE	33333333333
313	Anion	Chloride	32.700		lacksquare	0.330		250 ^d	250	*************
313	Anion	Fluoride	0.139			0,033		4	1.5	ENCAMPAGE ACCOUNT
313	Anion	Nitrate	0,165		U	0.165		10	10	
313	Anion	Nitrite	0,033	_	ŭ	0.033		1	1	510 500 100 50
313	Anion	Ortho-phosphate	0.066	_	U	0.066		NE acad	NE 050	THE STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE P
313 Sample Date: 6/18/2	Anion	Sulfate	[ 2430]	mg/L	4000	20		250 ⁴	250	
		hr : aal	45.500	O'T		0.520	0.220	0.75	110	C008
505	Radiological	Uranium-234	15.700	•	<u> </u>	0.538	2,330	27°	NE.	
505	Radiological	Uranium-235	0,106		U	0.286	0,211	27°	NE	+
505	Radiological	Uranium-238	11,400	·		0.538	1.980	27°	NE	600°
		Total Uranium ^c	27.100		=		μg/L	27°	NE	600°
505	Water Quality	Total Dissolved Solids		mg/L	Ш	2,38		500°	500	
505	Water Quality	Alkalinity, Total as CaCO3	841,000	mg/L,	Ш	0.725		NE	NE	
505	Anion	Chloride	170.000			6.600		250 ^d	250	
505	Anion	Fluoride	0.311		Ш	0.033		4	1.5	300000000000000000000000000000000000000
505	Anion	Nitrate	0.094		J	0.033		10	10	
505	Anion	Nitrite	0.100		U	0.033		1	1	
505	Anion	Ortho-phosphate	0.200		U	0,066		NE A	NE	
505	Anion	Sulfate	2160	mg/L	*********	10		250 ^d	250	
	1	Anions, Alk & TDS on 6/17/2008						u Scripen eau		
302A	Radiological	Uranium-234	55.800	•		0.146	2,490	27°	NE	
302A	Radiological	Uranium-235	2.780	_		0.155	0.619	27°	NE	600°
302A	Radiological	Uranium-238	41,100	pCi/L	Щ	0.146	2.140	27°	NE	600°
		Total Uranium ^c	99.680	pCi/L	=	110.756	μg/L	27°	NE.	600°
302A	Water Quality	Total Dissolved Solids	8890	mg/L		2.38		500 ^d	500	
302A	Water Quality	Alkalinity, Total as CaCO3	542	mg/L		0.725		NE	NE	
302A	Anion	Chloride	457.000	mg/L	Ш	6.600		250 ^d	250	
302A	Anion	Fluoride	0.490		J	0.165		4	1.5	
302A	Anion	Nitrate	0,165		Ü	0.165		10	10	
302A	Anion	Nitrite	0.033		Ü	0.033		1	1	
302A	Anion	Ortho-phosphate	0.066		U	0,066		NE	NE	
302A	Anion	Sulfate	4900	mg/L		50		250 ^d	250	10.00.00.00
Sample Date: 6/18/2	AND DESIGNATION OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF		A STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PAR							
		Uranium-234	30.600	•	Щ	0,330	3,000	27°	NE	
A42	Radiological	Uranium-235	1.880			0.408	0.832	27°	NE	600°
A42	Radiological	Uranium-238	29.400	pCi/L		0.330	2.940	27°	NE	600°
		Total Uranium ^c	61.880	pCi/L	=	68.756	μg/L	27°	NE	600°
A42	Water Quality	Total Dissolved Solids	897	mg/L		2.38		500 ^d	500	
Λ42	Water Quality	Alkalinity, Total as CaCO3	457,000	mg/L		0.725		NE	NE	
A42	Anion	Chloride	13.000			0,066		250 ^d	250	
A42	Anion	Fluoride	0.125			0.033		4	1.5	
Λ42	Anion	Nitrate	0.088			0.033		10	10	
A42	Anion	Nitrite	0.100		U	0.033		1	1	
A42	Anion	Ortho-phosphate	0.200		U	0.066		NE	NE	
A42	Anion	Sulfate	286	mg/L		2		250 ^d	250	

	PARAMETER*	analyte	RESUL)	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs*** pCi/L
Sample Date: 6/17/2					機械		T		·	
BH49A	Radiological	Uranium-234		pCi/L	辶	0.654	1.480	27°	NE	
ВН49Л	Radiological	Uranium-235		pCi/L	U	0.420	-	27°	NE.	
BH49A	Radiological	Uranium-238		pCi/L	乚	0.563	1.340	27°	NE	
		Total Uranium ^c	12,730		=	14.144	STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET	27°	NE.	600°
ВН49А	Water Quality	Total Dissolved Solids		mg/L	╙	2.38		500°	500	
BH49A	Water Quality	Alkalinity, Total as CaCO3		mg/L	<del> </del>	0.725		NE acod	NE 250	
ВН49А ВН49А	Anion Anion	Chloride Fluoride	34,000	mg/L mg/L	$\vdash$	0,330 0.033		250 ^d	250	
BH49A	Anion	Nitrate		mg/L mg/L	U	0.033		10	1.3	
BH49A	Anion	Nitrite		mg/L	Ŭ	0,033		1	1	
ВН49А	Anion	Ortho-phosphate		mg/L	Ū	0.066		NE	NE	
	Anion	Sulfate		mg/L		2		250 ^d	250	
Sample Date: 6/17/20										
OW04A	Radiological	Uranium-234	0.491	pCi/L	П	0.257	0,284	27°	NE	600°
OW04A	Radiological	Uranium-235	-0.054		U	0.301	0.102	27°	NE	600°
OW04A	Radiological	Uranium-238	0.438	pCi/L	П	0,282	0.276	27°	NE	600°
-		Total Uranium ^c	0.929	pCi/L	<b>≓</b> ,	1,032	μg/L	27°	NE	600°
OW04A ⊢ .	Water Quality	Total Dissolved Solids	897	mg/L		2.38		500 ^d	500	
OW04A	Water Quality	Alkalinity, Total as CaCO3	158,000	mg/L		0.725		NE	NE	
OW04A	Anion	Chloride	28.500			1.320		250 ^d	250	
OW04A	Anion	Fluoride	0.233		П	0.033		4	1.5	
OW04A	Anion	Nitrate		mg/L		0.033		10	10	
OW04A	Anion	Nitrite		mg/L	U	0.033		1	1	
	Anion	Ortho-phosphate	0.066		U	0.066		NE 250 ^d	NE 350	
OW04A Sample Date: 6/18/20	Anion	Sulfate	480	mg/L				230	250	3
	Radiological	Uranium-234	127.000	L-С:/Т		0.528	6.800	27°	NE.	600°
	Radiological	Uranium-235		pCi/L	H	0.528	1,740	27°	NE NE	600°
	Radiological	Uranium-238	120.000		Н	0,389	6.590	27°	NE NE	600°
OWIID	Kathological	Total Uranium c	253.680		<u> </u>	281.867			NE NE	600°
OWI1B	Water Quality	Total Dissolved Solids		mg/L	$\bar{\Box}$	2,38	μg/L	500 ^d	500	000
		Alkalinity, Total as CaCO3	307.000		$\vdash$	0.725		NE	NE	
	Anion	Chloride	15.200			0.066		250 ^d	250	
		Fluoride	0.293			0.033		4	1.5	
	Anion	Nitrate	0.100		U	0,033		10	10	
OW11B	Anion	Nitrite	0.100	mg/L	U	0.033		1	1	
OW11B	Anion	Ortho-phosphate	0,200		U	0.066		NE	NE.	
		Sulfate	556	mg/L		5		250 ^d	250	
Sample Date: 6/18/20	08		and the second					0.00000000		
OW18B	Radiological	Uranium-234	5.920	pCi/L		0.092	0.897	27°	NE	600°
OW18B	Radiological	Uranium-235		pCi/L		0,189	0,315	27°	NE	600°
OW18B		Uranium-238	5.250			0.242	0.850	27°	NE.	600°
		Total Uranium ^c	11.748		=	13.053		27°	NE	600°
		Total Dissolved Solids		mg/L	Ш	2,38		500 ^d	500	
	<u>`</u> :	Alkalinity, Total as CaCO3	540.000		$\sqcup$	0.725		NE	NE	
		Chloride	26.300			0.132		250 ^d	250	
		Fluoride	0,343		,,	0.033		4	1.5	
		Nitrate Nitrite	0.100		U	0.033		10	10	
		Ortho-phosphate	0.100		Ü	0.033	30.00	NE.	NE	
		Sulfate		mg/L	┧	5	3160	250 ^d	250	
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	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 6/17/2	A STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PAR				di di					
415A	Radiological	Uranium-234	9.850	·		0.500	1.780	27°	NE	600°
415A	Radiological	Uranium-235	0,247	pCi/L	U	0.515	0.346	27°	NE	600°
415A	Radiological	Uranium-238	7.050	pCi/L		0.534	1.510	27°	NE	600°
		Total Uranium ^c	16.900	pCi/L	1-4	18.778	μg/L	27°	<b>N</b> E	600°
415A	Water Quality	Total Dissolved Solids	2310	mg/L		2.38		500 ^d	500	
415A	Water Quality	Alkalinity, Total as CaCO3	542.000	mg/L	Г	0.725		NE	NE	
415A	Anion	Chloride	141.000	mg/L		3.300		250 ^d	250	
415A	Anion	Fluoride	2,980			0.033		4	1.5	
415A	Anion	Nitrate	0.033		υ	0.033		10	10	
415A	Anion	Nitrite	0.033		U	0,033		1	I	
415A	Anion	Ortho-phosphate	0.066		U	0.066		NE	NE	
415A	Anion	Sulfate		mg/L		. 5		250 ^d	250	
415A	VOC	1,1,1-Trichloroethane	100.0		U	100		200	5	
415A	VOC	1,1,2,2-Tetrachloroethane	100.0		U	100		NE	5	
415A	VOC	1,1,2-Trichloroethane	100,0		Ū	100		5	1	
415A	VOC	1,1-Dichloreethane	100.0		U	100		NE	5	
415A	VOC	1,1-Dichloroethylene	100.0		U	100		7	5	
415A	VOC	1,2-Dichloreethanc	100.0		υ	100		5	0,6	
415A	VOC	1,2-Dichlorepropane	100,0		U	100		5	1	
415A	VOC	2-Butanone	500.0		U.	500		NE	NE	
415A	VOC	2-Hexanone	500,0	μg/L	U	500		NE	NE	
415A	VOC	4-Methyl-2-pentanone	500.0	μg/L	U	500		NE	NE	
415A	VOC	Acetone	201.0	μg/L	J	500		NE	NE	
415A	VOC	Benzene	100.0	μg/L	U	100		5	1	
415A	VOC	Bromodichleromethane	100.0	μg/L	U	100		NE	NE	
415A	VOC	Bromoform	100.0	μg/L	U	100		NE	NE	
415A	VOC	Bromomethane	100.0	μg/L	U	100		NE	5	
415A	VOC	Carbon disulfide	500.0	μg/L	U	500		NE	60	
415A	VOC	Carbon tetrachloride	100.0	μg/L	Ü	100		5	5	
415A	VOC	Chlorobenzene	100.0		U	100		100	5	
415A	VOC	Chloroethane	100.0		U	100		NE	5	
415A	VOC	Chloroform	100.0		U	100		NE	7	
	VOC	Chloromethane	100.0		U	100		ИЕ	5	
415A	VOC	cis-1,2-Dichloroethylene	9650,0	μg/L		100		70	-5	
415A	VOC	cis-1,3-Dichloropropylenc	100.0	μg/L	U	100		NE	0.4e	
	VOC	Ethylbenzene	100.0		U	100		700	5	
	VOC	Methylene chloride	500,0		U	500		5	5	
	VOC	Styrene	100.0		U	100		100	5	
415A	VOC	Tetrachloroethylene	29800.0			500			5	0.000
	VOC	Toluene	100.0		U	100		0001	5	
	VOC	trans-1,2-Dichloroethylene	104.0			100		100	5	\$0000000000000000000000000000000000000
	VOC	trans-1,3-Dichloropropylene	100.0		U	100		NE	0.4°	
	VOC	Trichloroethylene	11500.0			500		5	5	
	VOC	Vinyl chloride	513.0	. ~		100	0.00	2	2	
415A	VOC	Xylenes (total)	100.0	μg/L	U	100		10000	5 ⁴	

NESS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NX State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 6/18/2	2008					a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	in Shall			
201∧	VOC	1,1,1-Trichloroethane	1.0	μg/L	U	L company		200	5	
201A	VOC	1,1,2,2-Tetrachloroethane	1.0	μg/L	U			NE	5	
201A	VOC	1,1,2-Trichlorocthane	1.0	µg/L	U	1			1	
201A	VOC	I,I-Dichlorocthane	1.0	μg/L	Ų	- 1		NE	5	
201A	VOC	1,1-Dichloroethylene	1.0	μg/L	U	1		7	5	
201A	VOC	1,2-Dichloroethanc	1.0	μg/L	U	- 1		5	0,6	
201A	VOC	1,2-Dichloropropane	1.0	μ <b>g/</b> L	U	1		5	Ī	
201A	VOC	2-Butanone	5.0	μg/L	U	5		NE	NE	
201A	VOC	2-Hexanone	5.0	μg/L	U	5		NE	NE	
201A	VOC	4-Methyl-2-pentanone	5.0	μg/L_	U	5		NE	NE	
201A	voc	Acetone	5.0	μg/L	U	5		NE	NE	
201A	VOC	Benzene		μg/L	U	i		5	1	
201A	VOC	Bromodichloromethane	1.0	μg/L	G	1		NE	NE	
201A	VOC	Bromoform	1.0	μg/L	U	J		NE	NE	
201A	VOC	Bromomethane		μg/L	U	- 1		NE		
201A	VOC	Carbon disulfide	5.0	μg/L	U	5		NE	60	
201A	VOC	Carbon tetrachloride		μg/L	U	1		5	5	
201A	VOC	Chlorobenzene	1.0	μg/L	U	1		100	5	
201A	VOC	Chloroethane		μg/L	Ų	- 1		NE	5	
201A	VOC	Chloroform		μg/L	U	- 1		NE	7	
201A	VOC	Chloromethane		μg/L	U	1		NE	5	
201A	VOC	cis-1,2-Dichloroethylene	1.0	μg/L	U	1		70		
201A	VOC	cis-1,3-Dichloropropylene	1.0	μg/L	U	- 1		NE.	0.4°	
201A	VOC	Ethylbenzene	1.0	μg/L	U	- 1		700	5	
201A	VOC	Methylene chloride	5.0	μg/L	U	- 5		5	5	
201A	VOC	Styrene		μg/L	U	1		100	5	
201A	VOC	Tetrachloroethylene	1.0	μg/L	U	- 1		5		
201A	VOC	Toluene		μg/L	U	1		1000	5	
201A		trans-1,2-Dichloroethylene	1.0	μg/L	U	1		100	5	
201A	VOC	trans-1,3-Dichloropropylene	1.0	μg/L	U	-1		NE	0.4°	
201A	VOC	Trichloroethylene		μg/L	Ų	1		5	. 5	
201	VOC	Vinyl chloride	1.0	μg/L	U	i		2	2	
201A		Xylenes (total)	1.0	µg/L	U	i		10000	51	

		*SIIN	UALIFIER*	stection or sporting Limit*	ndiological acertainty (±)	deral Regulations CLS**	Y State Water nality Stds.**	DE DCGs**
NFSS WELL ID* PARAMETER*	ANALYTE	RESULT 5	그		25	≗∑	동취	ğ 2

## *NFSS WELL ID

BO2W20S - Background

GW-DUP(A50) - Field Duplicate of well location A50

## *PARAMETER

VOC - Volatile Organic Compound

PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

#### ***UNITS**

pCi/L - picocuries per liter

μg/L - micrograms per liter (ppb)

### *QUALIFIER

Validated Qualifier: J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

## *Detection or Reporting Limit

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Metal) - Method Detection Limit

Organic (VOC) - Reporting Limit ( gray shading)



## ** Groundwater at NFSS is not a drinking water source.

The above federal and state regulation concentrations are for comparative purposes only.

# Federal Regulations:

National Primary Drinking Water Regulations 40CFR141.62&63

## US Dept of Energy:

USDOE derived concentration guide (USDOE Order 5400.5) for drinking water.

## New York State

New York State Standards - Water Quality Criteria (class GA) per 6 NYCRR, Part 703.

## NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228
- b. "Adjusted" gross alpha MCL of 15 pCi/L, including Thorium isotopes, excluding radon and uranium
  - -National Primary Drinking Water Regulations; Radionuclide; Final Rule (Federal Register -December 7, 2000)
- c. Sum of Uranium Isotopes (27 pCi/L or 30 µg/L).
- d. National Secondary Drinking Water Regulations (40CFR143.3)
- c. Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.
- f. Not a sum total for Directhyl Benzene (Xylene), applies to 1,2--Xylene, 1,3-Xylene and 1,4-Xylene individually.

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NFSS WELL ID*	PARAMETER*	ANALYTE	RESULЛ	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/29/2	008									
B02W20S	Radiological	Radium-226	0.366	pCi/L	U	0.545	0.361	5ª	5ª	100°
B02W20S	Radiological	Radium-228	1.090	<del></del> -	J	0.540	0.541	5ª	5ª	100*
202	raidiological	Total Radium ^a	1,090	pCi/L	Ť	0.510	0.0.11	5ª		100°
B02W20S	Radiological	Thorium-228	0.029	pCi/L	U	0.170	0.089	15 ^b	NE	400
B02W20S	Radiological	Thorium-230	0.023	pCi/L	U	0.107	0.055	15 ^b	NE	300
B02W20S		Thorium-232	-0.022	pCi/L	U	0.107		15 ^b	NE.	50
BUZ W 205	Radiological	Total Thorium b		<del></del>	U	0.127	0.038	15 ^b		
			Non-detect	pCi/L	$\vdash$				NE	NE
B02W20S	Radiological	Uranium-233/234	4.840	pCi/L	<u> </u>	0.087	0,907	27°	NE.	600°
B02W20S	Radiological	Uranium-235/236	0.199	pCi/L		0.092	0.132	27°	NE.	600°
B02W20S	Radiological	Uranium-238	3.810	pCi/L		0.045	0.750	27°	NE	600°
		Total Uranium ^c	8.849	pCi/L	=	9.832	μg/L	27°	NE	600°
B02W20S	Water Quality	Alkalinity, Total as CaCO3	423	mg/L		1.45		500°	500	
B02W20S	Water Quality	Total Dissolved Solids	905	mg/L		2.38		NE	NE	
B02W20S	Anion	Chloride	12.100	mg/L		0.066		250 ^d	250	
B02W20S	Anion	Fluoride	0.441	mg/L		0.033		4	1.5	
B02W20S	Anion	Nitrate	0.033	mg/L	U	0.033	100.00	10	10	46.00
B02W20S	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
B02W20S	Anion	Ortho-phosphate	0.066	mg/L	Ų	0.066		NE	NE.	
B02W20S	Anton	Sulfate	348	mg/L	Ш	10		250 ^d	250	
B02W20S	Metal	Aluminam	5.5	μg/L	J	5.0		50-200 ^d	NE	
B02W20S	Metal	Antimony	0.5	μg/L	U	0.5		6	3	
B02W20S	Metal	Arsenie	1.5	μg/L	U	1.5		10	25	
B02W20S	Metal	Barium	17.8	μg/L		0.5		2000	1000	
B02W20S	Metal	Beryllium	0.1	μg/L	U	0,1		4	11	
B02W20S	Metal	Boron	222.0	μg/L		20.0		NE	1000	
B02W20S	Metal	Cadmium	0.1	μg/L	U	0.1		5	5	
B02W20S	Metal	Calcium	71500.0	μg/L	**	100.0		NE	NE NE	
B02W20S B02W20S	Metal Metal	Chromium Cobalt	1.5 0.5	μg/L	IJ	1.5		100 NE	50 NE	
B02W20S		Соррег	2.4	μg/L μg/L	J	0.1		1300	200	
B02W20S		Iron				10.0		300 ^d	300	
B02W20S		Lead	378.0 0.5	μg/L μg/L	U	0.5		300 15	25	
B02W20S		Lithiam	53.3		U	2.0		NE	NE NE	
B02W20S		Magnesium	128000.0	μg/L μg/L		26.0		NE.	NE NE	
		Manganese	18.1	<u>де/L</u>	$\vdash$	1.0		50 ^d	300	
		Mercury	0,1	μg/L	Ü	0.1		2	0.7	
B02W20S		Nickel	3.2	μg/L	Ů	0.1		NE.	100	
		Potassium	1640.0	μg/L	$\dashv$	80.0		NE.	NE	
B02W20S		Selenium	1.6	μg/L	j	1.0		50	10.	
B02W20S		Silver	0.2	μg/L	U	0.2		100 ^d	50	
B02W20S		Sodium	59600.0	μg/L	3	400.0		NE	20000	
B02W20S		Thallium	0.3	μg/L	U	0.3		2	NE.	
		Vanadium	3.0	μg/L	Ü	3.0		NE	14	
				1.0						

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCL.8**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/27/2	008		Maria da da	100						
Λ45	Radiological	Radium-226	0.451	pCi/L		0.230	0.261	5°	5ª	100°
A45	Radiological	Radium-228	0.716	pCi/L		0.607	0.464	5ª	5ª	100°
		Total Radium ^a	1.167	pCi/L				5°	5°	100°
A45	Radiological	Thorium-228	0.128	*	U	0.165	0.131	15 ^b	NE	400
A45	Radiological	Thorium-230	0,004	<del></del>	U	0.134	0.054	15 ^b	NE.	300
A45	Radiological	Thorium-232	-0.002	***************************************	Ŭ	0,069	0,051	15 ^b	NE	50
7143	Iraniological	Total Thorium b	Non-detect	pCi/L	۳	0,007	1,001	15	NE NE	NE
Λ45	n. disk. de d			<u> </u>	$\vdash$	0011	2.000	27°		600°
	Radiological	Uranium-233/234	19,400	***************************************	<u> </u>	0.211	3,680		NE	
A45	Radiological	Uranium-235/236	1.040			0,157	0,520	27°	NE	600°
A45	Radiological	Uranium-238	13.300			0.211	2.670	27°	NE	600°
	T	Total Uranium ^c	33.740	pCi/L	=		μg/I.	27°	NE	600°
A45	Water Quality	Alkalinity, Total as CaCO3	478			1.45		500 ^d	500	
A45	Water Quality	Total Dissolved Solids	1760	mg/L	Ш	2.38		NE	NE	
Λ45	Anion	Chloride	55.100	mg/L		3,300		250 ^d	250	
A45	Anion	Fluoride	0.117	mg/L		0.033		4	1.5	
A45	Anion	Nitrate	0.091	mg/L	J	0.033		10	10	
A45	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
A45	Anion	Ortho-phosphate	0,066	mg/L	U	0.066		NE	NE	
A45	Anion	Sulfate	802	mg/L	Ш	5		250°	250	
A45	Metal	Aluminum	5.0	μg/L	U	5.0		50-200 ^d	NE	
A45	Metal	Antimony	0.9	μg/L	Ų	0.9		6	3	
A45	Metal	Arsenic	1.5	μg/L	U	1.5		10	25	
A45	Metal	Barium	10.1	μg/I.		0.5		2000	1000	
A45	Metal	Beryllium	0.1	μg/L	Ų	0.1		4	11	
A45	Metal	Boron	69.2	μg/L		4.0		NE	1000	
A45 A45	Metal	Cadmium Calcium	0.1	μg/L	U	0.1		2	2	
A45	Metal Metal	Chromium	247000.0 1,5	μg/L μg/L	Ü	500.0		NE 100	NE 50	
A45	Metal	Cobalt	1.5	μg/L μg/L	-	1,5 0.1		NE	NE:	
Λ45	Metal	Copper	4.9	μg/L μg/L		0.1		1300	200	
A45	Metal	Iron	2450.0	μg/L	$\dashv$	10.0		300 ^d	300	
A45	Metal	Lead	2430,0	μg/L μg/L	U	0.5		15	25	
Λ45	Metal	Lithium	69,2	μg/L		2.0	5.565 (0)	NE.	NE	
A45	Metal	Magnesium	135000.0	μg/L		130,0		NE NE	NE	
A45	Metal	Manganese	419.0	μg/L		1.0		50 ^d	300	
Λ45	Metal	Mercury	0.1	μg/L	U	0.1		2	0.7	
A45	Metal	Nickel	6.3	μg/L		0.5		NE	100	
A45	Metal	Potassium	3940.0	με/L		80.0		NE	NE	
Λ45	Metal	Selenium	1.0	μg/L	U	1.0		50	10	
A45	Metal	Silver	0,2	μg/L	U	0,2	6 (5) (6)	100 ^d	50	
A45	Metal	Sodium	49300.0	μg/L	寸	2000,0	10100000	NE	20000	
A45	Mctal	Thallium	0.3	μg/L	U	0.3		2	NE	
Λ45	Metal	Vanadium ,	3.0	μg/L	U	3.0		NE	14	
A45	Metal	Zinc	8.6	μg/L	J	2,6		5000 ^d	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/28/2	1008			0445000	ALC:		(2)			
A50	Radiological	Radium-226	0.405	pCi/L	U	0.477	0,333	5°	5*	100°
A50	Radiological	Radium-228	1.080	pCi/L	J	0.747	0.630	5ª	5"	100ª
		Total Radium a .	1.080	pCi/L				5ª	5ª	100°
A50	Radiological	Thorium-228	. 0.287	pCi/L		0.201	0.188	15 ^b	NE	400
A50	Radiological	Thorium-230	-0.005	pCi/L	U	0.189	0.060	15 ^b	NE	300
A50	Radiological	Thorium-232	0,021	pCi/L	U	0,129	0.054	15 ^b	NE	50
		Total Thorium ^b	0.287	pCi/L				15 ^b	NE	NE
A50	Radiological	Uranium-233/234	6.780		$\vdash$	0.279	1.280	27°	NE	600°
A50	Radiological	Uranium-235/236	0.670	-1	П	0,210	0.322	27°	NE	600°
A50	Radiological	Uranium-238	5,730	pCi/L		0.241	1,130	27°	NE	600°
	radiological	Total Uranium c	13.180	pCi/L	<u> </u>	14.644		27°	NE	600°
A50	Water Quality	Alkalinity, Total as CaCO3	427	mg/L	_	14.044	μg/L	500 ^d	500	000
A50	Water Quality	Total Dissolved Solids	1320	mg/L		2.38		NE.	NE	
A50	Anion	Chloride Chloride	21.200	mg/L	$\vdash$	0.132		250 ^d	250	
A50	Anion	Fluoride	0,297	mg/L	$\vdash$	0.132		230	1.5	
A50	Anion	Nitrate	0.173	mg/L	$\vdash$	0.033		10	1.0	
A50	Anion	Nitrite	0,038	mg/L	j	0.033		1	1	
A50	Anion	Ortho-phosphate	0.066	mg/L	Ū	0.066		NE	NE.	
Λ50 ;	Anion	Sulfate	625	mg/L		5		250 ^d	250	
A50	Metal	Aluminum	5.0	μg/L	U	5.0		50-200 ^d	NE	
A50	Metal	Antimony	0.5	μg/L	U	0,5		50 200	3	
λ50	Metal	Arsenic	1.5	μg/L	Ū	1.5		10	25	
A50	Metal	Barium	12.3	μg/L	Ť	0.5		2000	1000	
A50	Metal	Beryllium	0,1	μg/L	U	0,1		4	11	
A50	Metal	Boron	199.0	μg/L		40.0		NE	1000	
A50	Metal	Cadmium	0.1	μg/L	U	0.1		5	5	
A50	Metal	Calcium	112000.0	μg/L		200,0		NE	NE	
A50	Metal	Chromium	1,5	μg/L	U	1.5		100	50	
A50	Metal	Cobalt	0.9	μg/L	J	0.1		NE NE	NE	
A50	Metal	Copper	3.6	μg/L	Ш	0.3		1300	200	
A50	Metal	Iron	435.0	μg/L		10.0		300 ^d	300	
A50	Metal	Lead	0.5	μg/L	U	0.5		15	25	
A50	Metal	Lithiam	54.8	μg/L	$\Box$	2,0		NE NE	NE	
A50	Metal	Magnesium	141000.0	μg/L		52.0		NE	NE	
A50	Metal	Manganese	41.4	μg/L		1.0		50"	300	
A50	Metal	Mercury	0,1	μg/L	U	0.1		2	0.7	
A50	Metal	Nickel	3.2	μg/L	$\dashv$	0.5		NE	100	
A50 A50	Metal Metal	Potassium Selenium	2190.0	μg/L	T 7	80.0 1.0		NE 50	NE 10	
		<u></u>	1.0	μg/L π	U					
A50	Metal	Silver	0,2	μg/L	U	0.2		100 ^d	50	
A50 A50	Metal Metal	Sodium Thaliium	67400.0	μg/L		800.0		NE NE	20000 NE	
A50	Metai	Vanadium	0.3 3.0	μg/L μg/L	U	3.0		NE	NE 14	
A50	Metai	Zinc	4.5	μg/L μg/L	1	2.6		5000 ^d	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/27/2	2008		Construction of the						Silver Israel	and the same
OW04B	Radiological	Radium-226	0.508	pCi/L	U	0.513	0.371	5ª	5°	100ª
OW04B	Radiological	Radium-228	0,075	pCi/L	U	0.663	0.362	5ª	5ª	100°
,		Total Radium ^a	Non-detect	pCi/L				5°	5°	100a
OW04B	Radiological	Thorium-228	0.174	pCi/L	U	0.221	0.177	15 ^b	NE	400
OW04B	Radiological	Thorium-230	0.020	pCi/L	U	0.180	0.074	15 ^b	NE	300
OW04B	Radiological	Thorium-232	-0,002	pCi/L	U	0.180	0.069	15 ^b	NE NE	50
O II O I I	Ivadiological	Total Thorjum ^b	Non-detect	pCi/L	۲	0.093	0.009	15 ^b	NE	30
OW04B	lo u i · i		<del></del>	•	$\vdash$	0.700	2.710			600°
	Radiological	Uranium-233/234	20.700	pCi/L	╀	0.302	3.710	27°	NE	
OW04B	Radiological	Uranium-235/236	0.789	pCi/L	<u> </u>	0,225	0.419	27°	NE	600°
OW04B	Radiological	Uranium-238	18.000	pCi/L		0.328	3.290	27°	NE	600°
		Total Uranium ^e	39.489	pCi/L	=	43.877	μg/L	27°	NE	600°
OW04B	Water Quality	Alkalinity, Total as CaCO3	314	mg/L		1.45		500 ^d	500	
OW04B	Water Quality	Total Dissolved Solids	1560	mg/L		2,38		NE	NE	
OW04B	Anion	Chloride	114.000	mg/L		3.300		250 ^d	250	
OW04B	Anion	Fluoride	0.493	mg/L		0.033		4	1.5	
OW04B	Anion	Nitrate	0,136	mg/L		0,033		10	10	
OW04B	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
OW04B	Anion	Ortho-phosphate	0.066	mg/L	U	0.066		NE	ŊE	
OW04B	Anion	Sulfate	714	mg/L		5		250 ^d	250	
OW04B	Metal	Aluminum	5.0	μg/L	Ū	5.0		50-200 ^d	NE	
OW04B	Metal	Antimony	3.0	μg/L	J	0.5		6	3	
OW04B	Metal	Arsenie	1,5	μg/L	U	1.5		10	25	
OW04B	Metal	Barium	19.4	μg/L	П	0.5		2000	1000	
OW04B	Mctal	Beryllium	0.1	μg/L	U	0.1		4	11	
OW04B	Metal	Boron	362,0	μg/L		20,0		NE	1000	
OW04B	Metal	Cadmium	. 0.1	μg/L	U	0.1		5	5	
OW04B	Metal	Calcium	177000.0	μg/L		500.0		NE	NE	
OW04B	Metal	Chromium	2,0	μg/L	1	1.5		100	50	
OW04B	Metal	Cobalt	0.7	μg/L	J	0.1		NE	NE	
OW04B	Metai	Copper	7.0	μg/L		0.3		1300	200	
OW04B	Metal	Iron	957.0	μg/L		10.0		300 ^d	300	
OW04B	Metal	Lead	0.5	μg/L	Ū	0.5		15	25	
OW04B	Metal	Lithium	36.9	μg/L		2.0		NE	NE	
OW04B	Metal	Magnesium	130000.0	μg/L		130.0		NE	NE	
OW04B	Metal	Manganese	27.0	μg/L		1.0		50 ^d	300	
OW04B	Metai	Mercury	0.1	μg/L	U	0.1		2	0.7	
OW04B	Metal	Nickel	6.7	μg/L		0.5		NE	100	
OW04B	Metal	Potassium	2350.0	μg/L	Ш	80,0		NE	NE	
OW04B	Metal	Selenium	3.1	μg/L	J	1.0		50	10	
OW04B	Metal	Silver	0.2	μg/L	U	0.2		100 ^d	50	
OW04B	Metal	Sodium	61400,0	μg/L		2000,0		NE	20000	
OW04B	Metal	Thallium	0.3	μg/L	U	0.3		2	NE	
OW04B	Metal	Vanadium	3.0	μg/L	U	3.0	949640864	NE	14	
OW04B	Metal	Zinc	6.4	μg/L	J	2.6	616330000	5000 ^d	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** PCi/L
Sample Date: 10/27/2	008									
GW-DUP (OW04B)	Radiological	Radium-226	0,293	pCi/L	U	0.474	0.304	5ª	5 ^a	100°
GW-DUP (0W04B)	Radiological	Radium-228	0.706	pCi/L		0.681	0.497	5ª	. 5°	100ª
		Total Radium ^a	0.706	pCi/L				5ª	5*	100°
GW-DUP(OW04B)	Radiological	Thorium-228	0,056	pCi/L	U	0,222	0,118	15 ^b	NE	400
GW-DUP (OW04B)	Radiological	Thorium-230	-0.016	pCi/L	U	0.169	0.068	15 ^b	NE	300
GW-DUP (OW04B)	Radiological	Thorium-232	-0,010		U	0.145	0.066	15 ^b	NE	50
<u> </u>		Total Thorium b	Non-detect		Ŭ		0.000	15 ^b	NE	NE
GW-DUP (OW04B)	Radiological	Uranium-233/234	24.900	-	H	0.288	4,530	27°	NE	600°
GW-DUP (OW04B)	Radiological	Uranium-235/236	1.190	<u> </u>	Н	0.153	0.552	27°	NE.	600°
GW-DUP (OW04B)	Radiological	Uranium-238	22,800	·	Н	0.124	4,190	27°	NE	600°
GH-DOL (OHOIB)	Ikadiologicai	Total Uranium c	48.890	pCi/L	 	54.322		27°	NE	600°
GW-DUP (OW04H)	Metal	Aluminum	5.0		U	5.0	μg/L	50-200 ^d	NE	000
GW-DUP (OW04B)	Metai	Antimony	2.3	де/L	J	0.5		30-200	31	
GW-DUP (OW04B)	Metal	Arsenic	1.5	μg/L μg/L	Ü	1.5		10	25	
GW-DUP (OW04B)	Metal	Barium	19.2	μg/L	- 0	0.5	-	2000	1000	
GW-DUP (OW04B)	Metal	Beryllium	0.1	μg/L	U	0.1		4	111	
GW-DUP (OW04B)	Metal	Boron	357.0	μg/L	<u> </u>	20.0		NE	1000	
GW-DUP (OW04B)	Metal	Cadmism	0.1	μg/L	Ü	0.1		- 5	5	
GW-DUP (OW04B)	Metal	Calcium	180000.0	μg/L	П	500.0		NE	NE	
GW-DUP (OW04B)	Metal	Chromium	2.1	μg/L	J	1.5		100	50	
GW-DUP (OW04B)	Metal	Cobalt	0.8	μg/L	J	0.1		NE	NE	
GW-DUP (OW04B)	Metal	Соррег	6.8	μg/L		0,3		1300	200	
GW-DUP(OW04B)	Metal	Jron .	957.0	μg/L		10.0		300	300	
GW-DUP(0W04B)	Metal	Lead	0.5	μg/L	U	0.5		15	25	
GW-DUP (OWMB)	Metal	Lithiam	36.3	μg/L		2.0		NE	NE	
GW-DUP (OW04B)	Metal	Magnesium	130000.0	μg/L	Ш	130.0		NE.	NE	
GW-DUP (OW04B)	Metal	Manganese	28.3	μg/L	Ш	1,0		50 ^d	300	
GW-DUP (OW04B)		Метешу	0,1	;ıg/L	U	0.1		2	0.7	
GW-DUP (OW04B)	Metal	Nickel	6.8	μg/L		0.5		NE.	100	
GW-DUP (OW04B)	Metal	Potassium	2460.0		H	80.0		NE 50	NE	
GW-DUP (OW04B)	Metal	Selenium	2.5	μg/L	J	1.0		50	10	
GW-DUP (OW04B)	Metal	Silver	0.2	μg/L	Ü	0.2		100 ^d	50	
GW-DUP (OW04B)	Metal	Sodium	61700.0		7.7	2000.0		NE NE	20000	
GW-DUP (OW04B) GW-DUP (OW04B)	Metal Metal	Thallium Vanadium	0.3 3.0	μg/L	U	0.3 3.0		2	NE 14	
			5.7	μg/L	U	2.6		NE 5000 ^d		
GW-DUP (OW04B)	Metal	Zinc	5./1	μg/L	J	2,01	200000000000000000000000000000000000000	3000	NE	100000000000000000000000000000000000000

NFSS WELL, ID*	PARAMETER*	ANALYTE	RESULI	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCL,8**	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 10/28/2	008		E-03110 (61) (5				100	100100100		
OW06B	Radiological	Rađium-226	0.443	pCi/L	Г	0.385	0.323	5°	5ª	100°
OW06B	Radiological	Radium-228	1,020	pCi/L	j	0.519	0.499	5ª	5ª	100ª
		Total Radium ^a	1.463	pCi/L				5 ⁴	5ª	100ª
OW06B	Radiological	Thorium-228	0,192	pCi/L	U	0.211	0.174	15 ^b	NE	400
OW06B	Radiological	Thorium-230	0.027	pCi/L	Ψ	0,183	0,085	15 ^b	NE.	300
OW06B	Radiological	Thorium-232	-0.002	pCi/L	U	0,183	0.063	15 ^b	NE NE	50
011000		Total Thorium h	Non-detect	,	۲	0,079	0,056	15 ^b	INE	.,10
OWOCD	B e t · 1 ·		<del></del>	pCi/L	-	0.100	1.550		3.77	coof
OW06B	Radiological	Uranium-233/234	8,070	-	├	0.195	1.550	27°	NE	600°
OW06B	Radiological	Uranium-235/236	0.306	_	<u> </u>	0.104	0.221	27°	NE	600°
OW06B	Radiological	Uranium-238 .	6.730		<u> </u>	0.139	1.350	27°	NE	600°
		Total Uranium ^c	15,106	pCi/L	=	16.784	μg/I,	27°	NE	600°
OW06B	Water Quality	Alkafinity, Total as CaCO3	560	mg/L		1.45		500°	500	
OW06B	Water Quality	Total Dissolved Solids	1260,000	mg/L		2.380		NE	NE	
OW06B	Anion	Chloride	34.300	mg/L		1.320		250 ^d	250	
OW06B	Anion	Fluoride	0.272	mg/L		0,033		4	1.5	
OW06B	Anion	Nitrate	0.033	mg/L	U	0.033		10	10	
OW06B	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
OW06B	Anion	Ortho-phosphate	0,066	mg/L	U	0.066		NE	NE	
OW06B	Anion	Sulfate	530	mg/L		2		250 ^d	250	
OW06B	Metal	Aluminum	5.0	μg/L	U	5.0		50-200 ^d	NE	
OW06B	Metal	Antimony	0,5	μg/L	U	0.5		6	3	
OW06B	Metal	Arsenic	1.5	μg/L	U	1.5		10	25	
OW06B	Metal	Barium	12.7	μg/L		0.5		2000	1000	
OW06B	Metal	Beryllium	0,1	μg/L	U	0.1		4	11	
OW06B	Metal	Boron	88.0	µg/L		4.0		NE	1000	
OW06B	Metal	Cadmium	0.1	μg/L	U	0.1		5	5	
OW06B	Metal	Calcium	115000.0	μg/L		200.0		NE	NE	
OW06B	Metal	Chromium	2.4	μg/L	j.	1,5		100	50	
OW06B	Metal	Cobalt	1.6	μg/L		1.0		NE	NE	100.00
OW06B	Metal	Copper	2.5	μg/L		0.3		1300	200	08.004
OW06B	Metal	Iron	1320,0	μg/L		10.0		300 ^d	300	
OW06B	Metal	Lead	0.8	μg/L	J	0.5		15	25	
OW06B	Metal	Lithium	97.9	μg/L	_	2.0		NE	NE	
OW06B	Metal	Magnesium	166000,0	μg/L	_	52.0		NE	NE	
OW06B	Metal	Manganese	107.0	μg/L		1.0		50 ^d	300	
OW06B	Metal	Mercury	0.1	μg/L	U	0.1		2	0.7	
OW06B	Metal	Nickel	16.6	μg/L		0.5		NE	100	
OW06B	Metal	Potassium	3160.0	μg/L	إ	80.08		NE	NE	101111111111111111111111111111111111111
OW06B	Metal	Selenium	1.0	μg/L	U	1.0	1000	50	10	
OW06B	Metal	Silver	0.2	μg/L	U	0.2		100 ^d	50	
OW06B	Metal	Sodium	58300.0	μg/L		0,008		NE	20000	
OW06B	Metai	Thallium	0.3	μg/L	U	0.3		2	NE	
OW06B	Metal	Vanadium	3.0	μg/L 	U	3,0		NE	14	
OW06B	Metal	Zinc	4.2	μg/L	)	2.6		5000 ^d	NE	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/28	/2008			Salve Cont		and the second				100
OW13B	Radiological	Radium-226	1.050	pCi/L	- Nebelia	0.550	0.506	5ª	5ª	100ª
OW13B	Radiological	Radium-228	0.329	pCi/L	✝	0,847	0.510	. 5ª	5°	100°
011.00	Indutological	Total Radium a	1,379	pCi/L	╁	0.011	0.510	5ª	5	100°
OW13B	Radiological	Thorium-228	-0.031	pCi/L	U	0.238	0.074	15 ^b	NE.	400
OW13B	Radiological	Thorium-230	0.311	pCi/L	۲	0.238	0.206	15 ^b	NE	300
				-	l			15 ^b		
OW13B	Radiological	Thorium-232	0,058	pCi/L	υ	0,081	0.084		NE NE	50
		Total Thorium b	0.311	pCi/L	<u> </u>			15 ^h	NE	NE
OW13B	Radiological	Uranium-233/234	12.500	_	<u> </u>	0.150	2.130	27°	NE	600°
OW13B	Radiological	Uranium-235/236	0,486	pCi/L		0.159	0.274	27°	NE	600°
OW13B	Radiological	Uranium-238	9.880	pCi/L	L	0.150	1.760	27°	NE	600°
		Total Uranium c	22.866	pCi/L	8:5	25.407	μg/L	27°	NE.	600°
OW13B	Water Quality	Alkalinity, Total as CaCO3	493	mg/L		1.45		500 ^d	500	
OW13B	Water Quality	Total Dissolved Solids	2060	mg/L		2,38		NE	NE	
OW13B	Anion	Chloride	34,700	mg/L		0.330		250 ^d	250	
OW13B	Anion	Fluoride	0.287	mg/L		0.033		4	1.5	
OW13B	Anion	Nitrate	0.033	mg/L	U	0.033		10	10	
OW13B	Anion	Nitrite	0.033	mg/L	U	0,033		1	1	
OW13B	Anion	Ortho-phosphate	0.066	mg/L	Ū	0.066		NE	NE	
OW13B	Anion	Sulfate	1030	mg/L		10		250 ^d	250	
OW13B	Metal	Aluminum	81,1	μg/L	J	5.0		50-200 ^d	NE	
OW13B	Metal	Antimony	1.0	μg/L	Ū	1.0		6	3	
OW13B	Metal	Arsenic	1.5	μg/L	Ū	1.5		10	25	
OW13B	Metal	Barium	11.0	μg/L		0.5		2000	1000	34.6
OW13B	Metal	Beryllium	0.1	μg/L	U	0.1		4	11	
OW13B	Metal	Boron	126.0	μg/L		4.0		NE	1000	
OW13B	Metal	Cadmium	0.1	μg/L	U	0.1		5	5	
OW13B	Metal	Calcium	167000.0	μg/L		200.0		NE	NE	
OW13B	Metal	Chromium	3.2	μg/L		1.5		100	50	
OW13B	Metal	Cobalt	1.4	μg/L		0.1		NE	NE NE	
OW13B	Metal	Соррег	6.6	μg/L		0.3		1300	200	
OW13B	Metal	Iron	770.0	μg/L		10.0		300 ⁴	300	
OW13B	Metal	Lead	0.5	μg/L	U	0.5	1111111	15	25	
OW13B	Metal	Lithium	100.0	μg/l,		2.0	0.000	NE	NE	
OW13B	Metal	Magnesium	241000.0	μg/L		52.0		NE	NE	
OW13B	Metai	Manganesc	27.9	μg/L		1.0	e to to have	50 ^d	300	
OW13B	Metal	Mercury	0.1	μg/L	U	0.1		2	0.7	
	Metal	Nickel	7.8	μg/L	$\sqcup$	0.5		NE	100	88.884.8
	Metal	Potassium	2430.0	μg/L		80.0		NE	NE	
	Metal	Sclenium	1.0	μg/L	U	1.0		50	10	
OW13B	Metal	Silver	0.2	μg/L	U	0.2		100 ^d	50	
	Metal	Sodium	72800.0	μg/L		800.0		NE	20000	
OW13B	Metal	Thallium	0.3	μg/L	U	0.3		2	NE_NE	
OW13B	Metal	Vanadium	3.0	μg/L	U	3.0		NE	14	
OW13B	Metal	Zinc	8.4	μg/L	J	2.6		5000 ^d	NE_	

	T	т.		1	1	1				
NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/28	3/2008							ASSESSED AND A		
OW15B	Radiological	Radium-226	0.249	pCi/L	U	0.672	0.393	5ª	5ª	100ª
OW15B	Radiological	Radium-228	-0.050	pCi/L	U	0.695	0.368	5ª	5ª	100°
		Total Radium a	Non-detect	pCi/L				5°	5 ^a	100ª
OW15B	Radiological	Thorium-228	0,034	pCi/L	U	0.170	0.084	15 ^b	NE	400
OW15B	Radiological	Thorium-230	0.011	pCi/L	U	0,149	0.060	15 ^h	NE	300
OW15B	Radiological	Thorium-232	0.048	pCi/L	U	0.149	0.080	15 ^b	NE NE	50
OWISB	Ixadiological	Total Thorium ^b		<u> </u>	۲	0.120	0.061	15 ^b		
OTT I CO	In 11 + + +		Non-detect	pCi/L	ļ-	24-0		<u></u>	NE	NE see
OW15B	Radiological	Uranium-233/234	4.660	pCi/L		0.170	0,994	27°	NE	600°
OW15B	Radiological	Uranium-235/236	0.281	pCi/L	Ш	0.163	0.209	27°	NE	600°
OW15B	Radiological	Uranium-238	3.630	pCi/L		0.184	0.834	27°	NE	600°
		Total Uranium ^e	8,571	pCi/L	=	9,523	μg/L	27°	NE	600°
OW15B	Water Quality	Alkalinity, Total as CaCO3	402	mg/L		1.45		500 ^d	500	
OW15B	Water Quality	Total Dissolved Solids	000,0001	mg/L		2.380		NE	NE	
OW15B	Anion	Chloride	9.570	mg/L		0.066		250 ^d	250	
OW15B	Anion	Fluoride	0.479	mg/L		0.033		4	1.5	
OW15B	Anion	Nitrate	2.030	mg/L		0.033		10	10	
OW15B	Anion	Nitrite	0.039	mg/L	J	0.033		ı	**	
OW15B	Anion	Ortho-phosphate	0.066	mg/L	U	0,066		NE	NE	
OW15B	Anion	Sulfate	484	mg/L		5		250 ^d	250	
OW15B	Metal	Aluminum	20.1	μg/L		5.0		50-200 ^d	NE	
OW15B	Metal	Antimony	2.0	μg/L	J	0.5		6	3	
OW15B	Metal	Arsenic	1.6	μg/L	J	1.5		10	25	
OW15B	Metal	Barium	19.0	μg/L		0.5		2000	1000	
OW15B	Metal	Beryllium	0.1	μg/L	U	0,1		4	11	
OW15B	Metal	Boron	74.7	μg/L	LJ	4.0		NE	1000	
OW15B	Metal	Cadmium	0.3	μg/L	J	0.1		5	5	
OW15B	Metal	Calcium	92100,0	μg/L	Ш	400,0		NE	NE	
OW15B	Metal	Chromium	6.9	μg/L	Щ	1.5		100	50	
OW15B	Metal	Cobalt	0.5	μg/L	J	0.1		NE	NE	
OW15B	Metal	Соррег	7.8	μg/L	Ш	0.3		1300	200	
OW15B	Metal	Iron	515.0	μg/L		10,0		300 ^d	300	
OW15B	Metai	Lead	0.5	μg/L	U	0.5		15	25	
OW15B	Mctal	Lithium	58,3	μg/L	Ш	2,0		NE	NE	
OW15B	Metal	Magnesium	120000.0	μg/L	$\sqcup$	104,0		NE	NE	
OW15B		Manganese	9.1	μg/L		1.0		50 ^d	300	
OW15B		Mercury	0,1	μg/L	Ü	0.1		2	0.7	
OW15B		Nickel	7.9	μg/L	$\sqcup$	0,5		NE	100	
OW15B		Potassium	2170.0	μg/L	اببا	80.08		NE	NE	
OW15B		Selenium	1.0	μg/L	U	1.0	100000000000000000000000000000000000000	50	10	100000
OW15B	Metal	Silver	0.2	μg/L	U	0,2		100 ^d	50	
OW15B	Metal	Sodium	62200.0	μg/L		1600.0		NE	20000	
OW15B		Thallium	0.3	μg/L	U	0.3		2	NE	
OW15B	Metal	Vanadium	3.0	μg/L	U	3.0	38.063.00	NE	14	
OW15B	Metal	Zine	8.2	μg/L	J	2.6		5000 ^d	NE	

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NFSS WELL, ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pci/L
Sample Date: 10/2	8/2008									
OW17B	Radiological	Radium-226	0,587	pCi/L		0.500	0.383	5*	5ª	100 ^a
OW17B	Radiological	Radium-228	0.478	pCi/L	Г	0.941	0.584	5 ⁿ	5ª	100°
		Total Radium a	1.065	pCi/L	П			5°	5ª	100°
OW17B	Radiological	Thorium-228	0.014	pCi/L	U	0.175	0.071	15 ^b	NE	400
OW17B	Radiological	Thorium-230	0.033	pCi/L	U	0.088	0.066	15 ^b	NE	300
OW17B	Radiological	Thorium-232	0.031	pCi/L	τı	0.088	0.065	15 ^b	NE	50
		Total Thorium ^b	Non-detect	pCi/L	Ť			15 ^b	NE	NE
OW17B	Radiological	Uranium-233/234	2.810	pCi/L	┢	0.222	0.822	27°	NE	600°
OW17B	Radiological	Uranium-235/236	0.197	pCi/L	U	0,236	0.213	27°	NE	600°
OW17B	Radiological	Uranjum-238	2,960	pCi/L	H	0.266	0.852	27°	NE	600°
O II 17D	readiological	Total Uranium c	5.770	pCi/L		6.411		27°	NE.	600°
OW17B	Water Quality	Alkalinity, Total as CaCO3	421	mg/L		1,45	PE'L	500 ^d	500	0.00
OW17B	Water Quality	Total Dissolved Solids	910	mg/L	$\vdash$	2.38		NE	NE	
OW17B	Anion	Chloride	9.090	mg/L	┝	0.066		250 ^d	250	
OW17B	Anion	Fluoride	0.323	mg/L	$\vdash$	0.033		230	1,5	
OW17B	Anion	Nitrate	0.033	mg/L	U.	0.033		10	10	
OW17B	Anion	Nitrite	0.033	mg/L	Ü	0.033		Ĭ	10	
OW17B	Anion	Ortho-phosphate	0.066	mg/L	Ū	0,066		NE	NE	
OW17B	Anion	Sulfate	419	mg/L		2		250 ^d	250	
OW17B	Metal	Aluminum	6.1	μg/L,	1	5.0		50-200 ^d	NE	
OW17B	Metal	Antimony	1.0	μg/L	Ü	1.0		6	3	
OW17B	Metal	Arsenic	1.5	μg/L	Ü	1.5		10	25	
OW17B	Metal	Barium	8.6	μg/L		0.5		2000	1000	
OW17B	Metal	Beryllium	0.1	μg/L	U	0,1		4	11	
OW17B	Metal	Boron	100.0	μg/L		4.0		NE	1000	
OW17B	Metal	Cadmium	0.1	μg/L	Ü	0.1		5	5	
OW17B	Metal	Calcium	59700.0	μg/L		200.0		NE	NE	
OW17B	Metal	Chromium	1.5	μg/L	U	1.5		100	50	
OW17B	Metal	Cobalt	0.5	μg/L	]	0.1		NE	NE	
OW17B	Metal	Copper	3.4	μg/L	Ш	0.3		1300	200	
OW17B	Metal	Iron	237.0	μg/L		10.0		300 ^d	300	
OW17B	Metal	Lead	0.5	μg/L	U	0.5		15	25	100.00
OW17B	Metal	Lithium	57.2	μg/L	$\Box$	2.0		NE NE	NE	
OW17B	Metai	Magnesium	127000.0	μg/L		52.0		NE	NE.	
OW17B	Metal	Manganese	5.7	μg/J		1.0		50 ^d	300	
OW17B OW17B	Metal	Mercury	0.1	μg/L	U	0,1 0.5		2 NE	0.7 100	
OW17B OW17B	Metal Metal	Nickel Potassium	2000.0	μg/L μg/L	-	80.0		NE NE	100 NE	
OW17B OW17B	Metal	Selenium	2000.0	μg/L μg/L	U	1.0		50	10	61013051
OW17B	Metal	Silver	0.2	<u>ду</u> г. µg/L	Ū	0.2	1000000	100 ^d	50	ear obtains
OW17B	Metal	Sodium	58600.0	μg/L μg/L	V	800.0		NE NE	20000	100000000000000000000000000000000000000
OW17B	Metal	Thallium	0.4	μg/L	J	0.3	200	2	NE	edica de
OW17B	Metal	Vanadium	3,0	μg/L	Ü	3.0		NE.	14	
OW17B	Metal	Zinc	5.7	μg/L	J	2,6		5000 ^d	NE	
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NESS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
Sample Date: 10/29						1 1 1		4 4 2		
313	Radiological	Uranium-233/234	21.700	pCi/L	180,642	0.100	3.440	27°	NE	600°
313	Radiological	Uranium-235/236	0.553	pCi/L	H	0.100		27°	NE NE	600°
313	Radiological	Uranium-238	16.800		┢	0.038			NE NE	600°
313	Iradiologicai	Total Uranium e	39.053	pCi/L	100	43,392		27°	NE	600°
313	Water Quality	Alkalinity, Total as CaCO3	512	mg/L	Π	1,45	Francisco de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la companyone de la company	500	500	000
313	Water Quality Water Quality	Total Dissolved Solids	4380.000		-	2,380	2.34.0.2.11.4.3.2.0.0	NE	NE	
313	Anion	Chloride	34,900		┢	0.660	200.0200.0000.0000.00	250 ^d	250	
313	Anion	Fluoride	0.044	mg/L	J	0.033		4	1.5	
313	Anion	Nitrate	0.033	mg/L	Ū	0.033		10	10	
313	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
313	Anion	Ortho-phosphate	0.066	mg/L	U	0.066		NE	NE	
313	Anion	Sulfate	2600	mg/L		20		250 ^d	250	
Sample Date: 10/29	/2008			100110101010						
505	Radiological	Uranium-233/234	15.300	pCi/L		0.386	3.320	27°	NE	600°
505	Radiological	Uranium-235/236	0,303	pCi/L		0.205	0,308	27 ^c	NE	600°
505	Radiological	Uranium-238	9.700	pCi/L		0.357	2.310	27°	NE	600°
		Total Uranium ^c	25,303	pCi/L	=	28.114	μg/L	27°	NE	600°
505	Water Quality	Alkalinity, Total as CaCO3	715	mg/L		1.45		500 ^d	500	
505	Anion	Chloride	211,000	mg/L		13.200	0.000.000	250 ^d	250	
505	Anion	Fluoride	0.066	mg/L	J	0.033		4	1,5	
505	Anion	Nitrate	0.033	mg/L	U	0,033		10	10	
505	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
505	Anion	Ortho-phosphate	0.066	mg/L	U	0.066		NE	NE	
505	Anion	Sulfate	2760	mg/L		20		250 ^d	250	
Sample Date: 10/29	/2008					346.40				
302A	Radiological	Uranium-233/234	55.300	pCi/L		0,270	10,100	27°	NE	600°
302A	Radiological	Uranium-235/236	3.580	pCi/L		0.163	0.961	27°	NE	600°
302A	Radiological	Uranium-238	42.500	pCi/L		0.154	7.840	27°	NE	600°
	***************************************	Total Uranium ^c	101.380	pCi/L	=	112.644	μg/L	27°	NE	600°
302A	Water Quality	Alkalinity, Total as CaCO3	526	mg/L		1.45		500 ^d	500	
302A	Water Quality	Total Dissolved Solids	000.0888	mg/L		2.380		NE	NE	
302A	Anion	Chloride	473.000	mg/L		13.200		250 ^d	250	
302A	Anion	Fluoride	1,280	mg/L		0.330		4	1.5	
302A	Anion	Nitrate	0.033	mg/L	U	0.033		10	10	
302A	Anion	Nitrite	0.033	mg/L	U	0.033		1	1	
302A	Anion	Ortho-phosphate	0.066	mg/L	U	0,066		NE	NE	
302A	Anion	Sulfate	5430	mg/L	parks	20		250 ^d	250	
Sample Date: 10/28					ROSCH			album di		
A42	Radiological	Uranium-233/234	38.700	pCi/L		0.212	5.870	27°	NE	600°
	Radiological	Uranium-235/236		pCi/L		0.221		27°	NE	600°
A42	Radiological	Uranium-238	36,500	<b></b>		0.212	5,560	27°	NE	600°
		Total Uranium ^e	78.820	pCi/L	=	87.578	60000000000000000000000000000000000000	27°	NE	600°
A42	Water Quality	Alkalinity, Total as CaCO3	482	mg/L		1.45		500 ^d	500	
A42	Water Quality	Total Dissolved Solids	910		Ш	2.38		NE	NE	
A42	Anion	Chloride	13.300	mg/L		0.066		250 ^d	250	
A42	Anion	Fluoride	0.132	mg/L		0.033		4	1.5	
Λ42	Anion	Nitrate	0.033	mg/L	U	0.033		10	10	
A42		Nitrite	0,033	mg/L	U	0.033		1	1	
A42		Ortho-phosphate	0.066	mg/L	U	0.066		NE.	NE.	
Λ42	Anion	Sulfate	304	mg/L		2		250 ^d	250	

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				ONITIS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (	16	NY State Water Quality Stds.**	DOE DCGs** PCi/L
NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	5	5	<u> </u>	25	<u> </u>	20	<u> </u>
Sample Date: 10/30	220/2003/2003									
ВН49А	Radiological	Uranium-233/234	10,900	· · · · · · · · · · · · · · · · · · ·	ļ	0.280			NE	600°
BH49A	Radiological	Uranium-235/236	0.562	<del></del>	_	0.433			NE.	600°
ВН49Л	Radiological	Uranium-238	9.860		L	0,403	2.380		NE.	600°
		Total Uranium ^c	21.322	pCi/L	=	23.691	μg/l.	27°	NE.	600°
BH49A	Water Quality	Alkalinity, Total as CaCO3	375			1.45		500 ⁴	500	
ВН49А	Water Quality	Total Dissolved Solids	1150,000	mg/L		2,380		NE	NE	
BH49A	Anion	Chloride	40,300		L	1.320		250 ^d	250	
BH49A	Anion	Fluoride	0.276			0.033		4	1.5	
ВН49Л	Anion	Nitrate	0.033		U	0,033		10	10	
BH49A	Anion	Nitrite	0,041	mg/L	J	0.033			1	
BH49A	Anion	Ortho-phosphate	0.066		U	0.066	100	NE.	NE	10010000
ВН49∧	Anion	Sulfate	520.00	mg/L		2.00		250 ^d	250	80.00
Sample Date: 10/29		his discount of the second						19.55		
OW04A	Radiological	Uranium-233/234	1,210	pCi/L		0.084	0.352	27°	NE	600°
OW04A	Radiological	Uranium-235/236	0.069	pCi/L		0.062	0.080	. 27°	NE	600°
OW04A	Radiological	Uranium-238	0.806	pCi/L		0.108	0.276	27°	NE	600°
		Total Uranium ^c	2.085	pCi/L	:=	2.317	μg/L	27°	NE	600°
OW04A	Water Quality	Alkalinity, Total as CaCO3	169	mg/L		1.45		500 ^d	500	
OW04A	Water Quality	Total Dissolved Solids	943.000	mg/L		2.380		NE	NE	
OW04A	Anion	Chloride	30.200	mg/L		0.660		250 ^d	250	
OW04A	Anion	Fluoride	0,269	mg/L	$\vdash$	0.033		4	1.5	
OW04A	Anion	Nitrate	0.033	mg/L	υ	0.033		10	10	
OW04A	Anion	Nitrite	0.038	mg/L	J	0.033		1	1	
OW04A	Anion	Ortho-phosphate	0,066	mg/L	U	0.066		NE	NE	
OW04A	Anion	Sulfate	528	mg/L		20		250 ^d	250	
Sample Date: 10/30	/2008									
OW11B	Radiological	Uranium-233/234	87.600	pCi/L		0.307	17.000	27°	NE	600°
OW11B	Radiological	Uranium-235/236	4.270	pCi/L		0,380	1.200	27°	NE	600°
OWIIB	Radiological	Uranium-238	84,100			0.307	16.300	27°	NE	600°
<u></u>		Total Uranium ^c	175,970	pCi/L	=	195.522		27°	NE	600°
OWIIB	Water Quality	Alkalinity, Total as CaCO3	340			1,45		500 ^d	500	
OWIIB	Water Quality	Total Dissolved Solids	1210,000	,		2.380		NE.	NE.	000000
OWIIB	Anion	Chloride	16.100	mg/L	Н	0.066		250	250	
OW11B	Anion	Fluoride	0.328	mg/L		0.033		4	1,5	
OWIB	Anion	Nitrate	0,033	mg/L	U	0.033		10	10	
OW11B	Anion	Nitrite	0.037	mg/L	J	0.033		1	- 1	
OW11B	Anion	Ortho-phosphate	0.066	mg/L	U	0.066		NE	NE	
OWIIB	Anion	Sulfate	587	mg/L		10	10011	250 ^d	250	
Sample Date: 10/28	/2008									
OW18B	Radiological	Uranium-233/234	7,350	pCi/L	V4/34**	0.172	1.400	27°	NE	600°
OW18B	Radiological	Uranium-235/236		pCi/L		0.164	0,197	27°	NE	600°
OW18B	Radiological	Uranium-238	5.720			0.080	1.160	27°	NE	600°
OWIGD	Radiological	Total Uranium e						27°		
OWISE	Woter Ouglit-	Alkalinity, Total as CaCO3	13,317	pCi/L	_	14.797	μχιν		NE 500	600°
OW18B	Water Quality Water Quality	Total Dissolved Solids	520		$\dashv$	1.45		500 ^d	500	
			1650.000	mg/L	$\dashv$	2,380		NE 250 ^d	NE 250	
OW18B	Anion	Chloride	19,500	mg/L		0.132		250 ^d	250	
OW18B	Anion Anion	Fluoride Nitrate	0.358	mg/L		0.033	A 60 ( 50 )	4	1.5 10	
OW18B	Anion	Nitrate Nitrite	0.462 0.038	mg/L	J	0,033		10	10	
OW18B	Anion	Ortho-phosphate	0.038	mg/L mg/L,	U	0,033		NE	NE	
OW18B	Anion	Sulfate		mg/L	-	5		250 ^d	250	100000000000000000000000000000000000000
O YY LOD	AIIIUII	Dunate	812	யடிட		2	245059058	∠30	2301	000000000000000000000000000000000000000

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*	Radiological Uncertainty (±)	Federal Regulations MCL,s***	NY State Water Quality Stds.**	DOE DCGs**
Sample Date: 10/30	0/2008									
415A	Radiological	Uranium-233/234	6.810	pCi/L		0.735	2,330	27°	NE	600
415A	Radiological	Uranium-235/236	0,299	pÇi/L		0.270	0,354	27°	NE	600°
415A	Radiological	Uranium-238	5.600	pCi/L		0.830	2.020	27 ^c	NE	600°
		Total Uranium ^c	12.709	pCi/L	=	14.121	μg/L	27°	NE	600°
415A	Water Quality	Total Dissolved Solids	2120	mg/L	Ţ	2,38		500 ^d	500	
415A	Water Quality	Alkalinity, Total as CaCO3	543	mg/L		1.45		NE	NE	
415A	Anion	Chloride	134.000	mg/L		6,600		250 ^d	250	80000
415A	Anion	Fluoride	3,490	mg/L		0,033		4	1.5	
415A	Anion	Nitrate	0,033	mg/L	U	0.033		10	10	
415A	Anion	Nitrite	0.033	mg/L	U	0.033		1	ſ	
415A	Anion	Ortho-phosphate	0.066	mg/L	U	0.066		NE	NE	
415A	Anion	Sulfate	890	mg/L		10		250 ^d	250	
415A	voc	1,1,1-Trichloroethane	200.0	με/L	U	200.0		200	. 5	
415A	VOC	1,1,2,2-Tetrachloroethane	200.0	μg/L.	U	200,0		NE	5	
415A	voc	1,1,2-Trichloroethane	200.0	μg/L	U	200.0		5	1	
415A	VOC	1,1-Dichloroethane	200.0	μg/L	U	200.0		NE-	5	
415A	voc	1,1-Dichloroethylene	200.0	μg/L	U	200.0		7	5	
415A	VOC	1,2-Dichloroethane	200,0	μg/L	υ	200.0		5	0.6	
415A	VOC	1,2-Dichloropropane	200.0	μίg/L	U	200.0		5	. ]	
415A	VOC	2-Butanone	1000.0	μg/L	U	1000.0		NE	NE	
415A	VOC	2-Hexanone	1000.0	μg/L	U	0.0001		NE	NE	200
415A	VOC	4-Methyl-2-pentanone	1000.0	μg/L	υ	1000.0		NE	NE	
415A	VOC	Acctone	1000.0	μg/L	U	300.0		NE	NE	
415A	VOC	Benzene	200.0	μg/L	U	200,0		5	1	
415A	VOC	Bromodichloromethane	200.0	μg/L	U	200.0		NE.	NE	100000000000000000000000000000000000000
415A	VOC	Bromoferm	200.0	μg/L	U	200.0		NE	NE	10011001100
415A	VOC	Bromomethane	200,0	μg/L	U	200.0		NE	5	
415A	VOC	Carbon disulfide	1000.0	μg/L	U	1000.0		NE	60.	001102.11
415A	VOC	Carbon tetrachloride	200.0	μg/L	Ū	200.0		5	. 5	100
415A	VOC	Chlorobenzene	200.0	μg/L	U	200.0		100	5	
415A 415A	VOC	Chloroethane Chloroform	200,0 200,0	μg/L	U U	200.0 200.0		NE NE	5 7	
415A	VOC	Chioronothane	200.0	μg/L	U	200.0		NE NE	5	
415A	VOC	cis-1,2-Dichloroethylene	11200.0	μg/L, μg/L	۲	200.0		70	5:	
	VOC				7.7	AKENCATANAMAY SAMPLA			0.4°	
415A 415A	VOC	cis-1,3-Dichloropropylene	200.0	μg/L	U	200.0 200.0		NE 700		
415A 415A	VOC	Ethylbenzene Methylene chloride	200.0 2000.0	μg/L μg/L	U	200.0		700 5	5	
415A 415A	VOC	Styrene	2000,0	μg/L μg/L	Ü	2000.0	8 1000 1000	5 100	5	
415A	VOC-	Tetrachloroethylene	22800.0	μg/L μg/L	J	200.0 500.0		100	5	100000000000000000000000000000000000000
415A	VOC	Toluene	200.0	μg/L μg/L	ΰ	200.0	20000000	1000	5	
415A	VOC	trans-1,2-Dichloroethylene	139.0	μg/L μg/L	ij	200.0		100	5	16.003.00
415A	VOC	trans-1,3-Dichloropropyicae	200.0	μg/L	IJ	200.0		NE	0.4°	
415A	VOC	Trichloreethylene	10200,0	μg/L	Н	200.0		1415	5	
415A	VOC	Vinyl chloride	763.0	μg/L μg/L		200.0	0.00	2	2	100000000000000000000000000000000000000
415A	voc	Xylenes (total)	200.0	μg/L μg/L	U	200.0 200.0		10000		
オレンハ	1100	Ayrones (totat)	200.0	րբ/ւ		<b>以呼吸器器系统操作</b>	1656 SARSSA	,,,,,,,	J	1430 2850

Sample Date: 10/30/2008   201A   Water Quality   Total Dissolved Solids   1290   mg/L   2.38   500°											
Sumple Date: 10/30/2008	S WELL ID*	PARAMETER*	ANALYTE	RESULT	UNITS*	QUALIFIER*	Detection or Reporting Limit*		Federal Regulations MCLs**	NY State Water Quality Stds.**	DOE DCGs** pCi/L
201A	ple Date: 10/30	/2008						200			
201A	(	Water Quality	Total Dissolved Solids	1290	mg/L		2.38		500°	500	
201A	\	Water Quality	Alkalinity, Total as CaCO3	467	mg/L	T	1.45	510010000	NE	NE	
201A		Anion	Chloride	6.920	mg/L	ऻ	0.066		250 ^d	250	
201A		Anion		0.236		_	0.033		4	1.5	
201A						U			10	10	
201A	<u> </u>	Anion	Nitrite	0.036		J	0.033		1	1	
201A   Anion   Sulfate   S74   mg/L   10   250°		Anion		0.066		U	0.066		NE	NE	
201A   VOC   1,1,1-Trichloroethane   1.0   μg/L   U   1,0   NE		Anion	····	574	me/L		10		250 ^d	250	
201A   VOC   1,1,2,2-Tetrachlorocthane   1.0   µg/L   U   1.0   NE				1		U	· -			5	
201A   VOC   1,1,2-Trichloroethane   1.0   µg/L   U   1.0   S					ug/L	_	VCS CONTRACTOR SOCIAL PROPERTY.	0.0000000000000000000000000000000000000		5	
201A   VOC   1,1-Dichloroethane   1.0   µg/L   U   1.0   NE			1 7 7			_	1.0		5	1	
201A   VOC   1,1-Dichloroethylene   1.0   μg/L   U   1.0   7						_	And are the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Contract of the Co		NE	. 5	
201A   VOC   1,2-Dichloroethane   1.0   µg/L   U   1,0   5				1.0	. ~	_	1.0		7	5	
201A   VOC   1,2-Dichloropropane   1.0   µg/L   U   1.0   5						_	A1000000000000000000000000000000000000		5	0,6	
201A   VOC   2-Butanone   S.0   µg/L   U   S.0   NE		VOC		1.0		_	1.0		5	]	
201A         VOC         2-Hexanone         5.0 μg/L         U         5.0 NE           201A         VOC         4-Mcthyl-2-pentanone         5.0 μg/L         U         5.0 NE           201A         VOC         Acetone         5.0 μg/L         U         5.0 NE           201A         VOC         Benzene         1.0 μg/L         U         1.0 NE           201A         VOC         Bromofichromethane         1.0 μg/L         U         1.0 NE           201A         VOC         Bromofichromethane         1.0 μg/L         U         1.0 NE           201A         VOC         Bromomethane         1.0 μg/L         U         1.0 NE           201A         VOC         Carbon disulfide         5.0 μg/L         U         5.0 NE           201A         VOC         Carbon tetrachloride         1.0 μg/L         U         1.0 NE           201A         VOC         Carbon tetrachloride         1.0 μg/L         U         1.0 NE           201A         VOC         Chlorochane         1.0 μg/L         U         1.0 NE           201A         VOC         Chlorocthane         1.0 μg/L         U         1.0 NE           201A         VOC         Chlorocthane			1 1				5.0		NE	NE	
201A         VOC         4-Mcthyl-2-pentanone         5.0 μg/L         U         5.0         NE           201A         VOC         Acetone         5.0 μg/L         U         5.0         NE           201A         VOC         Benzene         1.0 μg/L         U         1.0         NE           201A         VOC         Bromodichloromethane         1.0 μg/L         U         1.0         NE           201A         VOC         Bromofern         1.0 μg/L         U         1.0         NE           201A         VOC         Bromomethane         1.0 μg/L         U         1.0         NE           201A         VOC         Carbon disulfide         5.0 μg/L         U         5.0         NE           201A         VOC         Carbon tetrachloride         1.0 μg/L         U         1.0         5           201A         VOC         Chlorobenzene         1.0 μg/L         U         1.0         NE           201A         VOC         Chlorocthane         1.0 μg/L         U         1.0         NE           201A         VOC         Chlorocthane         1.0 μg/L         U         1.0         NE           201A         VOC         Chloro		VOC	2-Hexanone			_	5.0			NE	
201A   VOC   Benzenc   1.0   µg/L   U   1.0   S		VOC	4-Mcthyl-2-pentanone	5,0		_	5.0		NE	NE	
201A         VOC         Bromodichloromethane         1.0 μg/L         U         1.0 μg/L         U         1.0 μg/L         NE           201A         VOC         Bromoferm         1.0 μg/L         U         1.0 μg/L         U         1.0 NE           201A         VOC         Carbon disulfide         5.0 μg/L         U         5.0 NE         NE           201A         VOC         Carbon tetrachloride         1.0 μg/L         U         1.0 So         5           201A         VOC         Chlorobenzene         1.0 μg/L         U         1.0 NE         100           201A         VOC         Chlorocthane         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Chloroform         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Chloromethane         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Chloromethane         1.0 μg/L         U         1.0 NE         NE           201A         VOC         cis-1,2-Dichloroethylene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         cis-1,3-Dichloropropylene         1.0 μg/L <t< td=""><td></td><td>VOC</td><td>Accione</td><td>5.0</td><td>μg/L</td><td>Ų</td><td>5.0</td><td></td><td>NE</td><td>NE</td><td></td></t<>		VOC	Accione	5.0	μg/L	Ų	5.0		NE	NE	
201A   VOC   Bromofern   1.0   \( \mu g/L \)   U   1.0   NE     NE     201A   VOC   Bromomethane   1.0   \( \mu g/L \)   U   1.0   NE     NE     201A   VOC   Carbon disulfide   5.0   \( \mu g/L \)   U   5.0   NE     NE     201A   VOC   Carbon tetrachloride   1.0   \( \mu g/L \)   U   1.0   5.0   NE     201A   VOC   Chlorobenzene   1.0   \( \mu g/L \)   U   1.0     NE     201A   VOC   Chlorocthane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chloroferne   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chloroferne   1.0   \( \mu g/L \)   U   1.0   NE     NE     201A   VOC   Chloromethane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   \( \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot		VOC	Веплене	1.0	μg/L	U	1.0		5	1	
201A   VOC   Bromofern   1.0   \( \mu g/L \)   U   1.0   NE     NE     201A   VOC   Bromomethane   1.0   \( \mu g/L \)   U   1.0   NE     NE     201A   VOC   Carbon disulfide   5.0   \( \mu g/L \)   U   5.0   NE     NE     201A   VOC   Carbon tetrachloride   1.0   \( \mu g/L \)   U   1.0   5.0   NE     201A   VOC   Chlorobenzene   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chlorocthane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chlorocthane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chloromethane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   Chloromethane   1.0   \( \mu g/L \)   U   1.0   NE     201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   NE     201A   VOC   \( \mu is-1,3-Dichloropylene   1.0   \mu g/L \)   U   1.0   NE     201A   VOC   \( \mu is-1,3-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   NE     201A   VOC   \( \mu is-1,3-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   Styrene   1.0   \( \mu g/L \)   U   1.0   S     5   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   100   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   1.0   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   1.0   1000   201A   VOC   \( \mu is-1,2-Dichlorocthylene   1.0   \mu g/L \)   U   1.0   1.		VOC	Bromodichloromethane	1.0		U	1.0		NE	NE	
201A         VOC         Bromomethane         1.0 μg/L         U         1.0 μg/L		VOC	Bromoferm	1.0		U	1.0	1000000	NE	NE	
201A         VOC         Carbon tetrachloride         1.0 μg/L         U         1.0 μg/L         U         1.0 μg/L         1.0 μg/L		VOC	Bromomethane	1.0		U	1,0		NE	5	
201Λ         VOC         Chlorobenzene         1.0         μg/L         U         1.0         100           201Λ         VOC         Chlorocthane         1.0         μg/L         U         1.0         NE           201Λ         VOC         Chloromethane         1.0         μg/L         U         1.0         NE           201Λ         VOC         Chloromethane         1.0         μg/L         U         1.0         NE           201Λ         VOC         cis-1,2-Dichloroethylene         1.0         μg/L         U         1.0         NE           201Λ         VOC         cis-1,3-Dichloropropylene         1.0         μg/L         U         1.0         NE           201Λ         VOC         Ethylbenzene         1.0         μg/L         U         1.0         700           201Λ         VOC         Methylene chloride         1.0         μg/L         U         1.0         5           201Λ         VOC         Styrene         1.0         μg/L         U         1.0         5           201Λ         VOC         Tetrachlorocthylene         2.0         μg/L         U         1.0         100           201Λ         VOC	<u> </u>	VOC	Carbon disulfide	5.0	μg/L	U	5.0		NE	60	
201A         VOC         Chlorocthane         1.0 μg/L         U         1.0 μg/L         U         1.0 NE           201A         VOC         Chloroform         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Chloromethane         1.0 μg/L         U         1.0 NE         NE           201A         VOC         cis-1,2-Dichloroethylene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Ethylbenzene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Methylene chloride         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Methylene chloride         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Styrene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Tetrachlorocthylene         2.0 μg/L         U         1.0 NE         NE           201A         VOC         Toluene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Toluene         1.0 μg/L         U         1.0 NE         1.0 NE		VOC '	Carbon tetrachloride	1.0	μg/L	U	1.0		5	5	
201A         VOC         Chloroform         1.0 μg/L         U         1.0 μg/L         U         1.0 μg/L         NE           201A         VOC         Chloromethane         1.0 μg/L         U         1.0 NE         NE           201A         VOC         cis-1,2-Dichloroethylene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         cis-1,3-Dichloropropylene         1.0 μg/L         U         1.0 NE         NE           201A         VOC         Ethylbenzene         1.0 μg/L         U         1.0 700         700           201A         VOC         Methylene chloride         10.0 μg/L         U         10.0 5         5           201A         VOC         Styrene         1.0 μg/L         U         1.0 100         100           201A         VOC         Tetrachloroethylene         2.0 μg/L         U         2.0 5         5           201A         VOC         Toluene         1.0 μg/L         U         1.0 100         1000           201A         VOC         trans-1,2-Dichloroethylene         1.0 μg/L         U         1.0 100         1000		VOC	Chlorobenzene	1.0	μg/L	Ū	1,0		100	5	
201A         VOC         Chloromethane         1.0         μg/L         U         1.0         NE           201A         VOC         cis-1,2-Dichloroethylene         1.0         μg/L         U         1.0         NE           201A         VOC         cis-1,3-Dichloropropylene         1.0         μg/L         U         1.0         NE           201A         VOC         Ethylbenzene         1.0         μg/L         U         1.0         700           201A         VOC         Methylene chloride         10.0         μg/L         U         10.0         5           201A         VOC         Styrene         1.0         μg/L         U         1.0         100           201A         VOC         Tetrachloroethylene         2.0         μg/L         U         1.0         100           201A         VOC         Toluene         1.0         μg/L         U         1.0         100           201A         VOC         trans-1,2-Dichloroethylene         1.0         μg/L         U         1.0         100		voc	Chloroethane	1.0	μg/L	U	1,0		NE	5	
201A         VOC         cis-1,2-Dichloroethylene         1.0         μg/L         U         1.0         70           201A         VOC         cis-1,3-Dichloropropylene         1.0         μg/L         U         1.0         NE           201A         VOC         Ethylbenzene         1.0         μg/L         U         1.0         700           201A         VOC         Methylene chloride         10.0         μg/L         U         10.0         5           201A         VOC         Styrene         1.0         μg/L         U         1.0         100           201A         VOC         Tetrachloroethylene         2.0         μg/L         U         1.0         100           201A         VOC         Toluene         1.0         μg/L         U         1.0         100           201A         VOC         trans-1,2-Dichloroethylene         1.0         μg/L         U         1.0         100		VOC	Chloroform	1.0	μg/L	Ü	1,0		NE	7	
201A         VOC         cis-1,3-Dichloropropylene         1.0         μg/L         U         1.0         NE           201Λ         VOC         Ethylbenzene         1.0         μg/L         U         1.0         700           201Λ         VOC         Methylene chloride         10.0         μg/L         U         10.0         5           201Λ         VOC         Styrene         1.0         μg/L         U         1.0         100           201Λ         VOC         Tetrachlorocthylene         2.0         μg/L         U         1.0         1000           201Λ         VOC         Toluene         1.0         μg/L         U         1.0         1000           201Λ         VOC         trans-1,2-Dichlorocthylene         1.0         μg/L         U         1.0         100		VOC	Chloromethane	1.0	μg/L	U	1,0		NE	5	
201Λ         VOC         Ethylbenzene         1.0         μg/L         U         1.0         700           201Λ         VOC         Methylene chloride         10.0         μg/L         U         10.0         5           201Λ         VOC         Styrene         1.0         μg/L         U         1.0         100           201Λ         VOC         Tetrachlorocthylene         2.0         μg/L         U         2.0         5           201Λ         VOC         Toluene         1.0         μg/L         U         1.0         1000           201Λ         VOC         trans-1,2-Dichlorocthylene         1.0         μg/L         U         1.0         100		VOC	cis-1,2-Dichloroethylene	1.0	μg/L	U	1,0		70	5	
201A         VOC         Methylene chloride         10.0         μg/L         U         10.0         5           201A         VOC         Styrene         1.0         μg/L         U         1.0         100           201A         VOC         Tetrachlorocthylene         2.0         μg/L         U         2.0         5           201A         VOC         Toluene         1.0         μg/L         U         1.0         1000           201A         VOC         trans-1,2-Dichlorocthylene         1.0         μg/L         U         1.0         100	-	VOC	cis-1,3-Dichloropropylene	1.0	μg/I,	U	1,0		NE	0,4°	
201A         VOC         Styrene         1.0 μg/L         U         1.0 μg/L         U         1.0 μg/L         1.0 μg/L         U         1.0 μg/L         1.0 μg/L         U         2.0 μg/L         1.0 μg/L         U         1.0 μg/L         U <td></td> <td>VOC</td> <td>Ethylbenzene</td> <td>1.0</td> <td>μg/L</td> <td>U</td> <td>1.0</td> <td></td> <td>700</td> <td>5</td> <td></td>		VOC	Ethylbenzene	1.0	μg/L	U	1.0		700	5	
201A         VOC         Tetrachlorocthylene         2.0 μg/L         U         2.0         5           201A         VOC         Toluene         1.0 μg/L         U         1.0         1000           201A         VOC         trans-1,2-Dichlorocthylene         1.0 μg/L         U         1.0         100	4	VOC	Methylene chloride	10.0	μg/L	U	10.0		5	5	
201A         VOC         Toluene         1.0         μg/L         U         1.0         1000           201A         VOC         trans-1,2-Dichloroethylene         1.0         μg/L         U         1,0         100		VOC		1.0	μg/L	U	1,0		100	5	
201A         VOC         Tolucne         1.0         μg/L         U         1.0         1000           201A         VOC         trans-1,2-Dichloroethylene         1.0         μg/L         U         1.0         100		VOC	Tetrachleroethylene	2.0	μg/Ĺ	U	2.0	1988	5	5	
		VOC		1.0	μg/L	U	1.0		1000	5	
201A VOC (rans-13-Dichloropropylene 1.0 ug/t, II NE		VOC	trans-1,2-Dichloroethylene	1.0	μg/L	U	1.0		100	5	
TO THE TO PROMOTE THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF		VOC	trans-1,3-Dichloropropylene	1.0	μg/L	Ü	1.0		NE	0.4 ^e	
201A VOC Trichloroethylene 1.0 μg/L U 1.0 5		VOC	Trichloroethylene	1.0	μg/L	U	1,0		5	5	
201A VOC Vinyl chloride 1.0 µg/L U 1.0 2		VOC	Vinyl chloride	1.0		U	1,0		2	2	
201A VOC Xylenes (total) 1.0 μg/L U 1.0 1000 10000		VOC	Xylenes (total)	1.0	μg/L	υ	1.0		10000	5 ^f	

NFSS WELL ID*	PARAMETER*	ANALYTE	RESULT	*STIN	VALIFIER*	etection or	keporting Limit*	tadiological Incertainty (±)	ederal	Regulations	Y State Water Quality Stds.**	OOE DCGs**
							<u> </u>	<u> </u>		<u> </u>	<u> </u>	ENSEMBRE DE LA COMP

#### *NFSS WELL ID

BO2W20S - Background

GW-DUP(Ow04B) - Field Duplicate of well location OW04B

### *PARAMETER

VOC - Volatile Organic Compound

PAH - Polycyclic Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

#### *UNITS

pCi/L - picocuries per liter

μg/L - micrograms per liter (ppb)

mg/L - milligrams per liter (ppm)

#### *QUALIFIER

Validated Qualifier: J - indicates an estimated value.

Validated Qualifier: U - indicates that no analyte was detected (Non-Detect).

#### *Detection or Reporting Limit

Radiological - Minimum Detectable Activity (MDA)

Inorganic (Metal) - Method Detection Limit

Organic (VOC) - Reporting Limit ( gray shading)



#### ** Groundwater at NFSS is not a drinking water source.

The above federal and state regulation concentrations are for comparative purposes only.

#### Federal Regulations:

National Primary Drinking Water Regulations 40CFR141.62&63

#### US Dept of Energy:

USDOE derived concentration guide (USDOE Order 5400.5) for drinking water.

#### New York State:

New York State Standards - Water Quality Criteria (class GA) per 6 NYCRR, Part 703.

### NE - Not Established

- a. Applies to the sum of Ra-226 and Ra-228
- b. "Adjusted" gross alpha MCL of 15 pCi/, including Thorium isotopes, excluding radon and uranium
   -National Primary Drinking Water Regulations; Radionuclide; Final Rule (Federal Register -December 7, 2000)
- c. Sum of Uranium Isotopes (27 pCi/L or 30 µg/L).
- d. National Secondary Drinking Water Regulations (40CFR143.3)
- c. Applies to the sum of cis- and trans-1,3-dichloroprepene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.
- f. Not a sum total for Dimethyl Benzene (Xylene), applies to 1,2--Xylene, 1,3-Xylene and 1,4-Xylene individually.

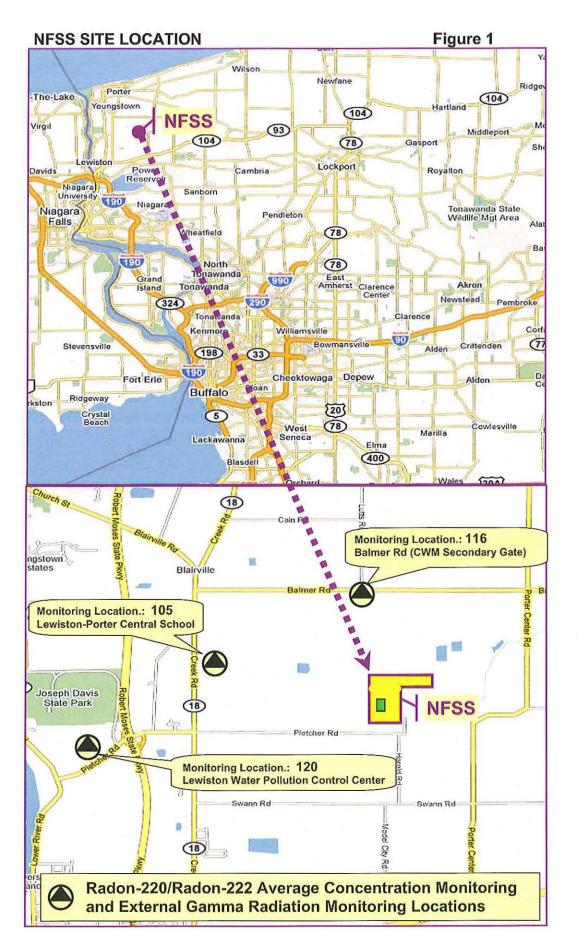
## FUSRAP NIAGARA FALLS STORAGE SITE

# 2008

# **FIGURES**

ENVIRONMENTAL SURVEILLANCE TECHNICAL MEMORANDUM





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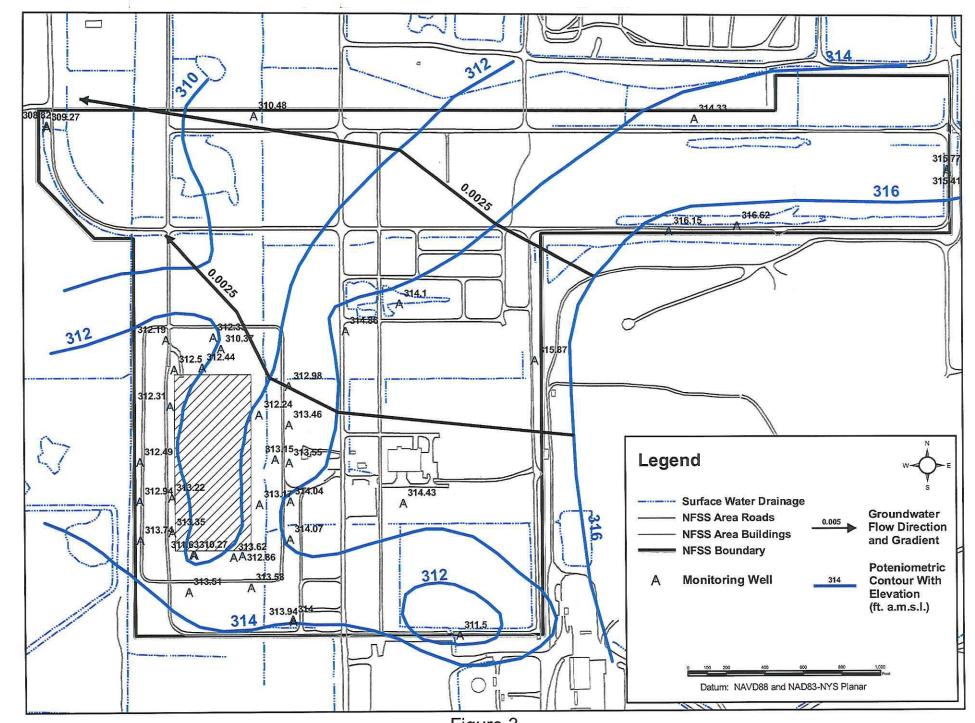
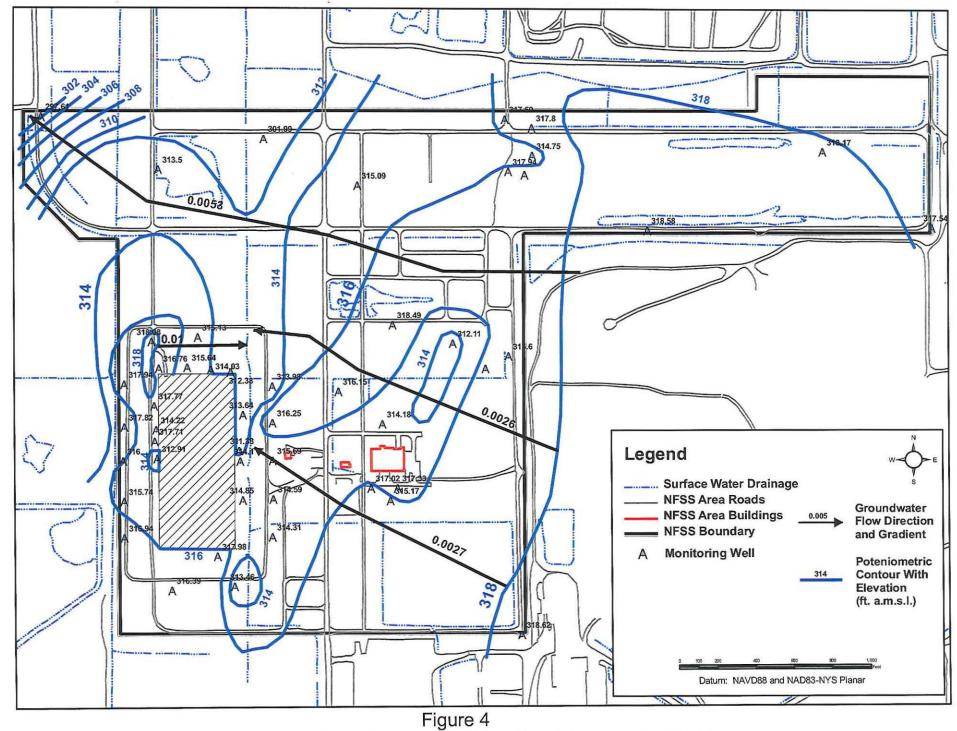


Figure 3
Seasonal High Potentiometric Surface Map (August 25, 2008)
Lower Groundwater System

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Seasonal High Potentiometric Surface Map (February 19, 2008)
Upper Groundwater System

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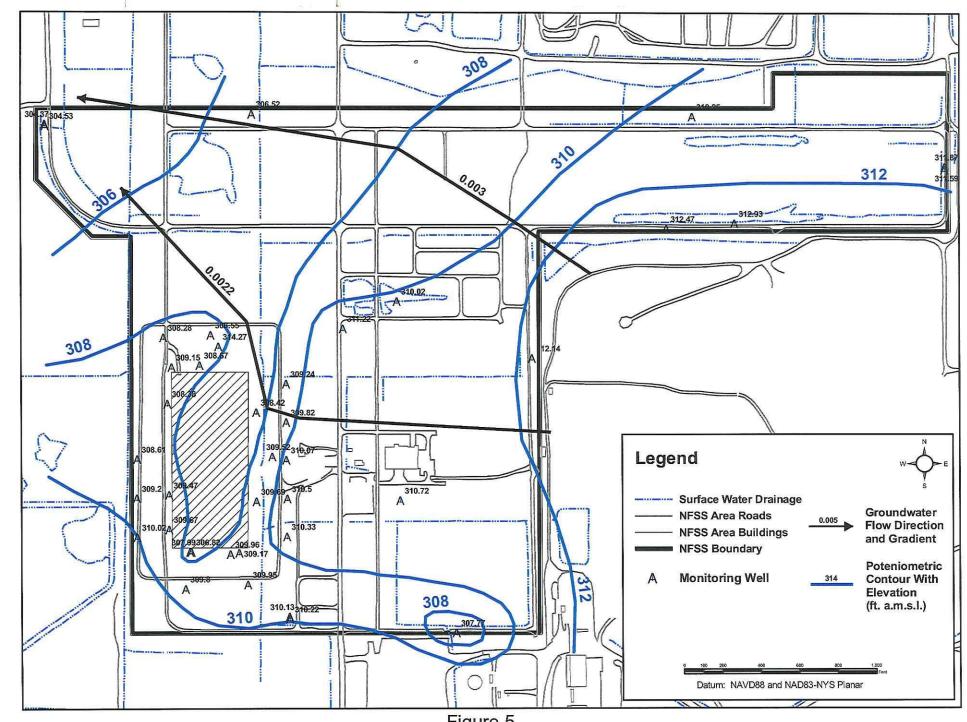
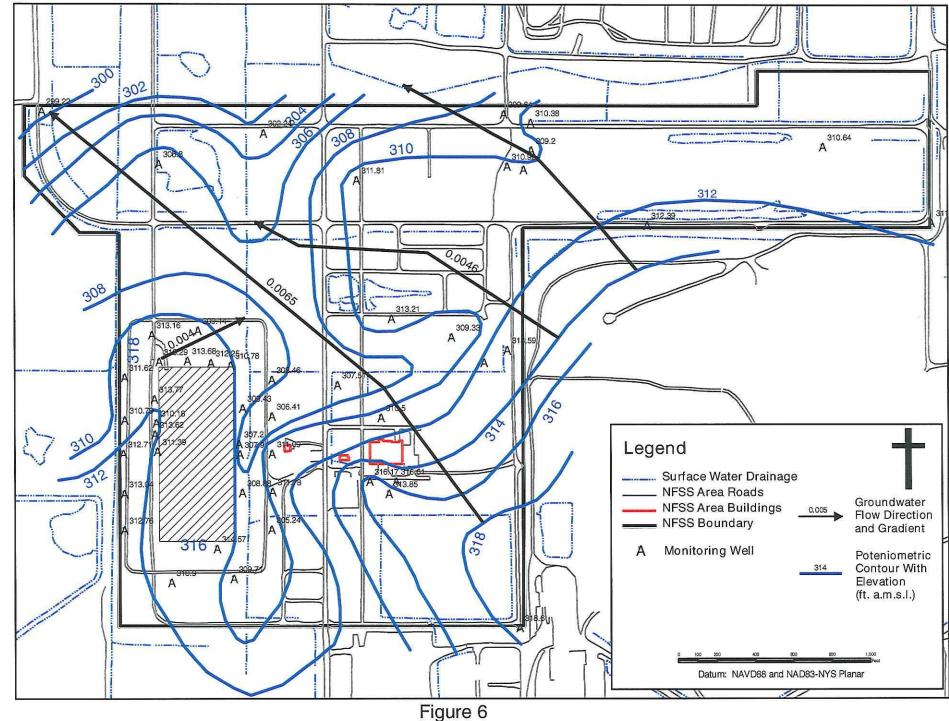


Figure 5
Seasonal Low Potentiometric Surface Map (February 19, 2008)
Lower Groundwater System

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Seasonal Low Potentiometric Surface Map (October 21, 2008)
Upper Groundwater System

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Fill			Upper
UCT		Upper Clay Till: Brown or reddish- brown clay with significant amounts of silt or sand and interspersed lenses of sand and gravel.	Water-Bearing Zone Elevation Range (Feet above MSL): 329 to 278
GLC		Glacio-Lacustrine Clay: Homogeneous gray clay with occasional laminations of red- brown silt and minor amounts of sand and gravel.	Aquitard
MST		Middle Silt Till: Gray to gray-brown silt with little sand and gravel.	
GLC		Glacio-Lacustrine Clay: Homogeneous gray clay with occasional laminations of red- brown silt and minor amounts of sand and gravel.	Elevation Range (Feet above MSL): 319 to 259
ASG	6. 2. 78 - 5. 6. 6. 78 6. 2. 78 - 5. 6. 2. 6. 78 6. 2. 78 - 5. 6. 2. 6. 78 6. 2. 78 - 5. 6. 2. 6. 78	Alluvial Sand and Gravel: Stratified coarse sands, non- stratified coarse silt and sand or interlayered silt, sand and clay.	Lower Water-Bearing Zone
BRT		Basal Red Till: Reddish-brown silt and coarse to fine sand.	Elevation Range (Feet above MSL): 314 to 246
QFM		Queenston Formation: Reddish- brown fissile shale.	Aquitard Two

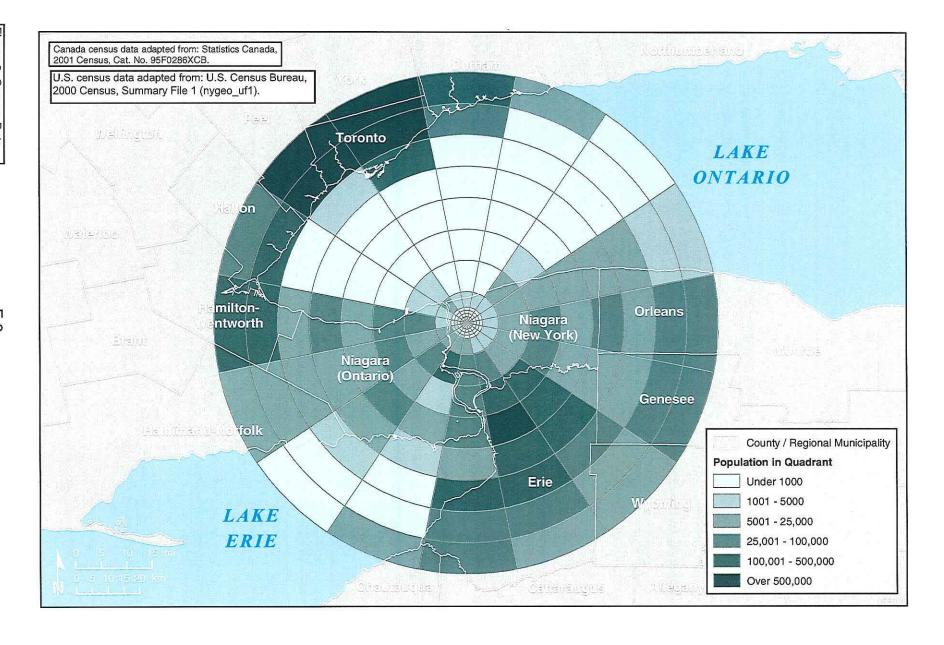
Filename: S:\Buf001\ArcView\Flow Calibration Tech Memo\

Project: BUF001-004-05-03 Created by: apassarelli 03/26/02 Revised: 04/17/02 asp

Source: HydroGeoLogic, Inc., 2002

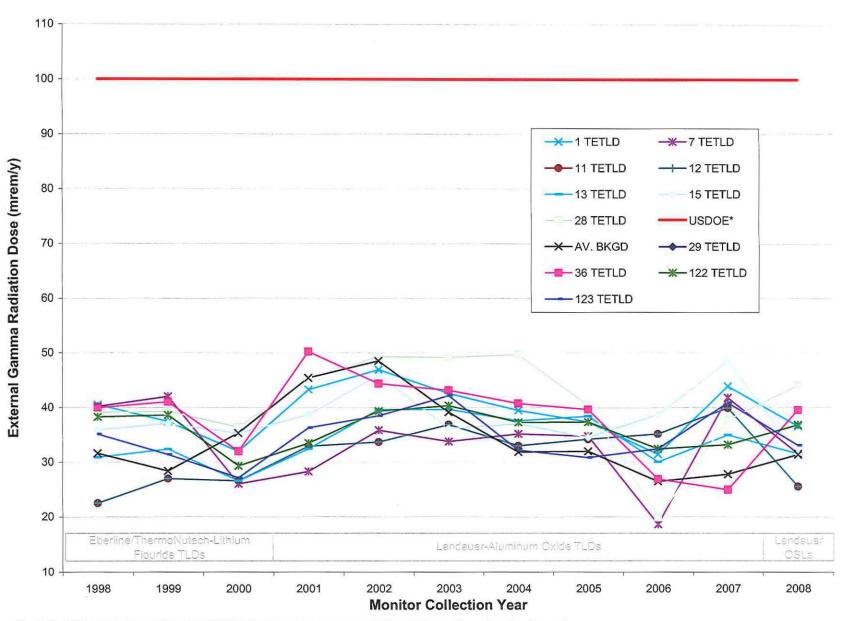
Figure 7

Schematic of Conceptualized Hydrostratigraphy



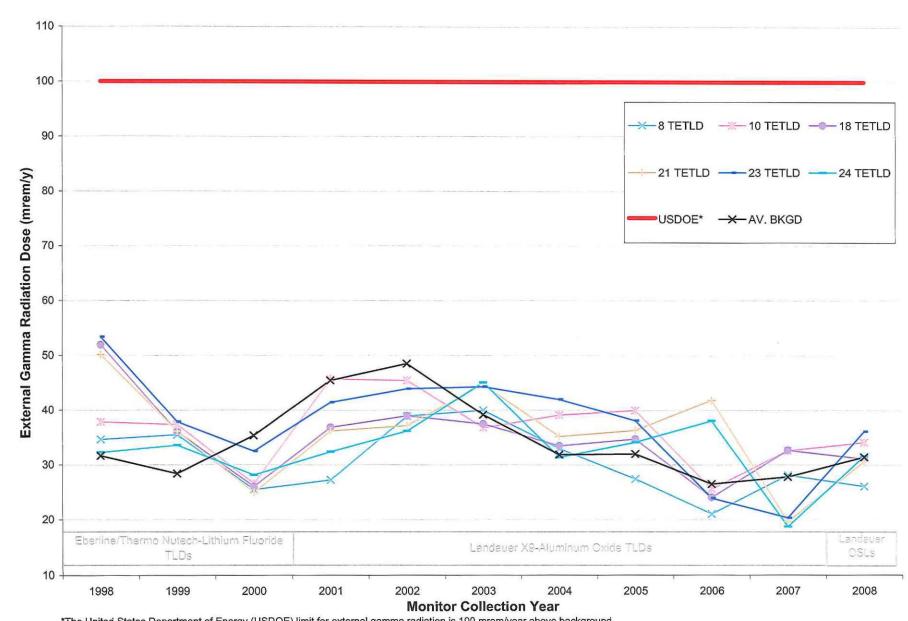
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FIGURE 9: EXTERNAL GAMMA RADIATION DOSE RATES AT NFSS PERIMETER



^{*}The United States Department of Energy (USDOE) limit for external gamma radiation is 100 mrem/year above background.

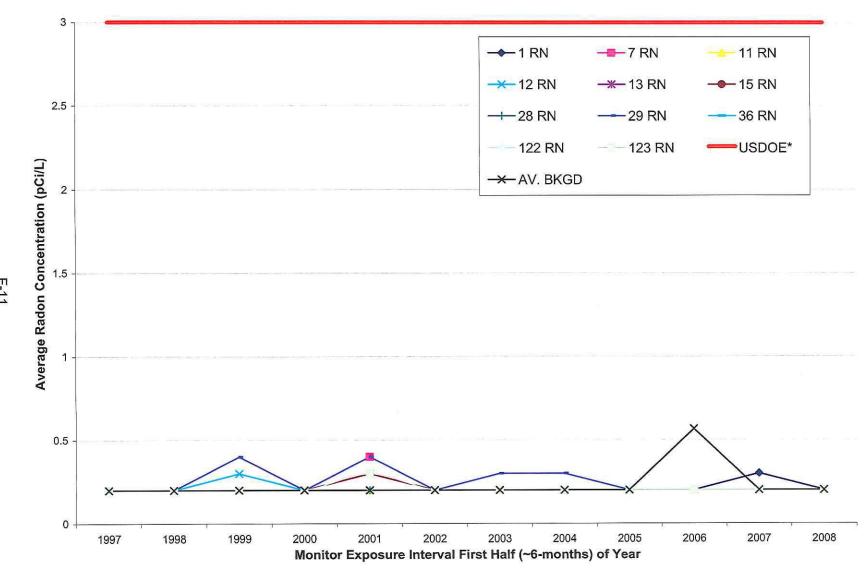
FIGURE 10: EXTERNAL GAMMA RADIATION DOSE RATES AT IWCS PERIMETER



*The United States Department of Energy (USDOE) limit for external gamma radiation is 100 mrem/year above background.

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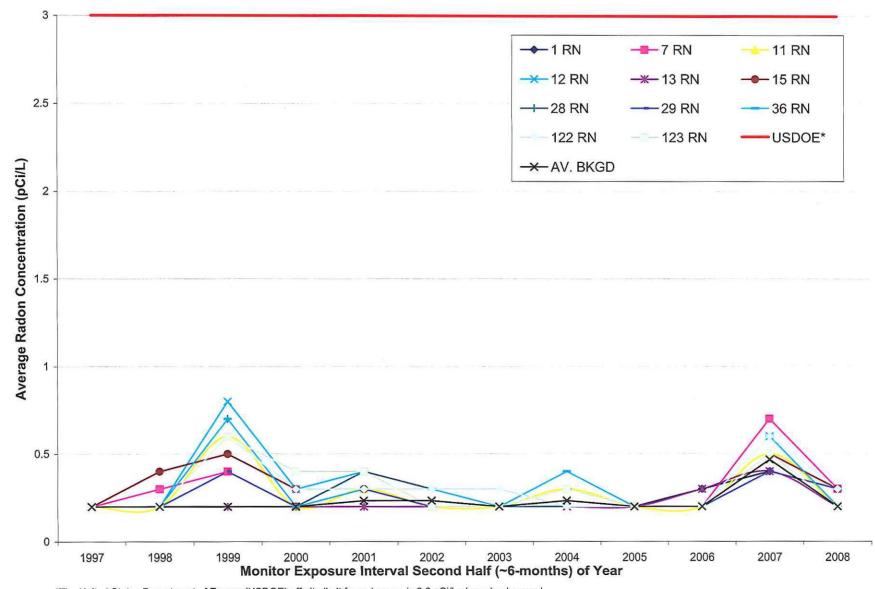
FIGURE 11: RADON GAS CONCENTRATION AT NFSS PERIMETER (JAN-JULY INTERVAL)



^{*}The United States Department of Energy (USDOE) off-site limit for radon gas is 3.0 pCi/L above background. Note: Above values contain detects and non-detects (dection limit is 0.2 pCi/L).

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FIGURE 12: RADON GAS CONCENTRATION AT NFSS PERIMETER (JUL-JAN INTERVAL)



^{*}The United States Department of Energy (USDOE) off-site limit for radon gas is 3.0 pCi/L above background.

Note: Above viaues contain detects and non-deteects (dection limit is 0.2 pCi/L).

^{**} Monitors 1, 10 and 24 RN were found in the snow (on the ground) for an unspecified amount of time. Therefore, those results for this exposure period were eliminated from the trend graph above.

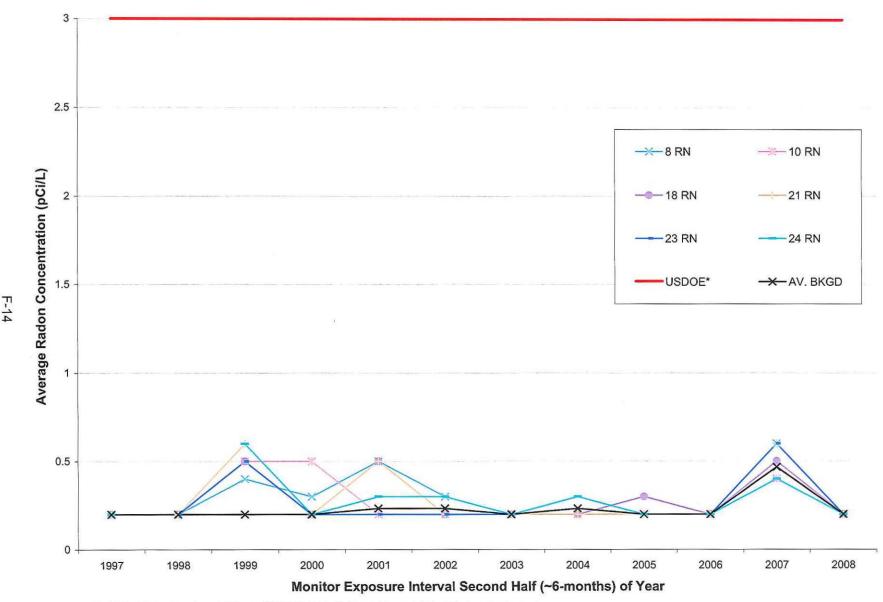
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^{*}The United States Department of Energy (USDOE) off-site limit for radon gas is 3.0 pCi/L above background. Note: Above vlaues contain detects and non-detects (dection limit is 0.2 pCi/L).

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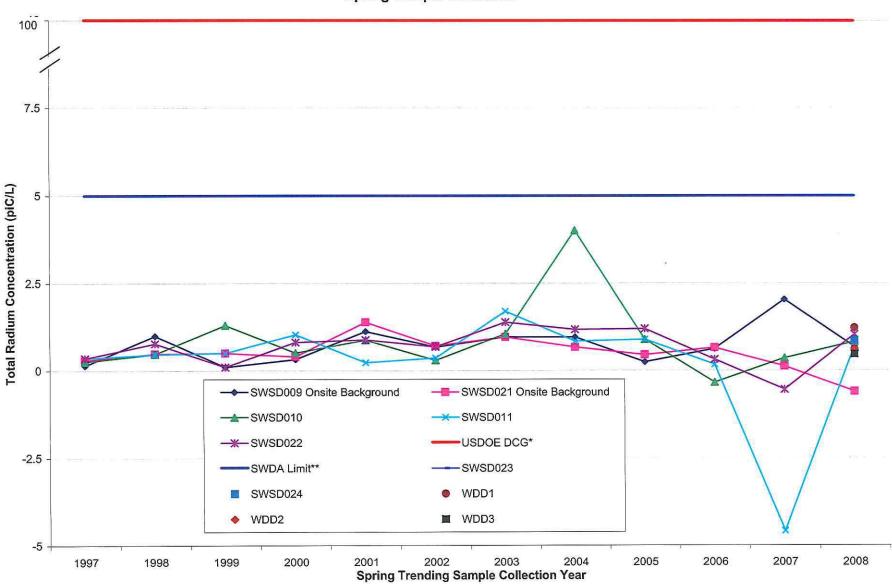
FIGURE 14: RADON GAS CONCENTRATION AT IWCS PERIMETER (JULY-JAN INTERVAL)



*The United States Department of Energy (USDOE) off-site limit for radon gas is 3.0 pCi/L above background. Note: Above vlaues contain detects and non-detects (dection limit is 0.2 pCi/L).

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FIGURE 15: TOTAL RADIUM (RADIUM-226 AND RADIUM-228) CONCENTRATION IN SURFACE WATER
Spring Sample Collection



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Total Radium is 100 pCi/L.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Total Radium is 5 pCi/L. Surface water at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

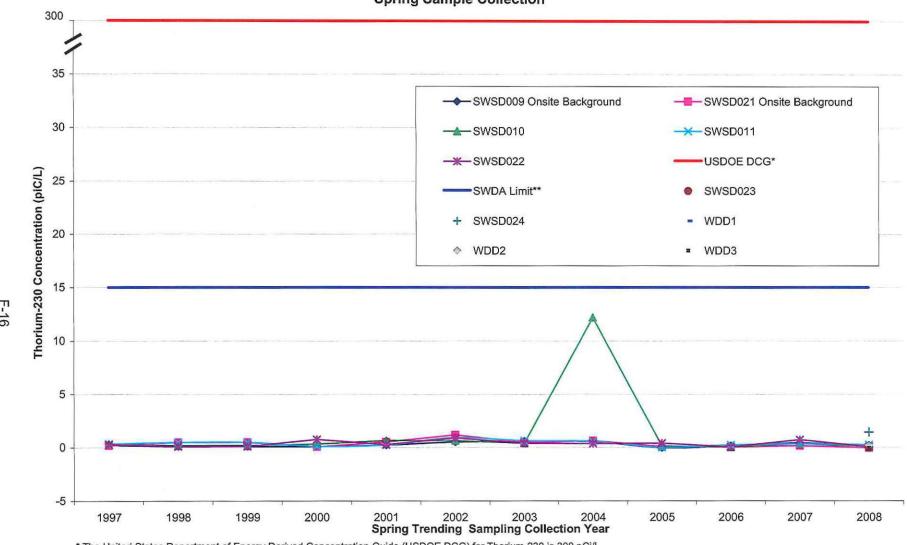
Note 1: 2004 findings for sample SWSD010 was attributed to excess turbidity of the sample.

Note 2: Above combined radium values include both detect and non-detect values.

Note 3: New sampling locations are represented by a single symbol.

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FIGURE 16: THORIUM-230 CONCENTRATION IN SURFACE WATER
Spring Sample Collection



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Thorium-230 is 300 pCi/L.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Thorium-230 is 15 pCi/L. Surface water at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

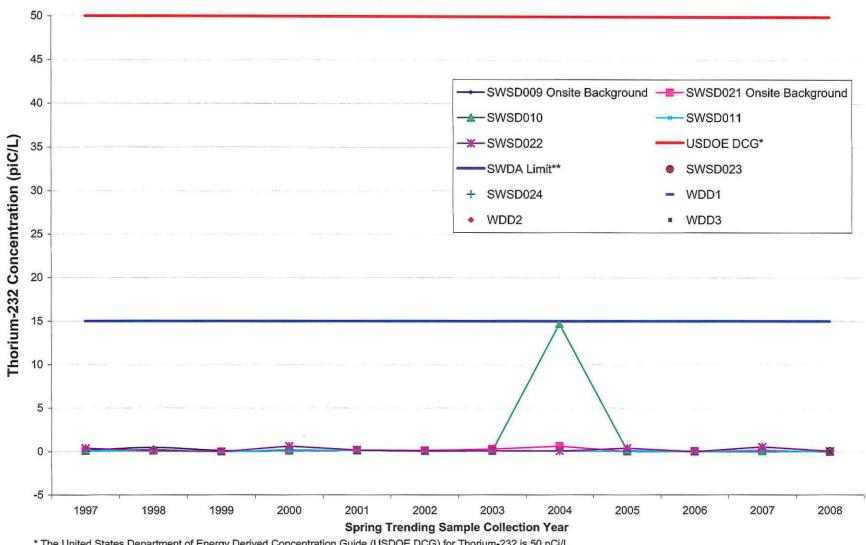
Note 2: 2004 findings for sample SWSD010 was attributed to excess turbidity of the sample.

Note 3: Above thorium-230 values contain detect and non-detect results.

Note 4: New sampling locations are represented by a single symbol.

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#### FIGURE 17: THORIUM-232 CONCENTRATION IN SURFACE WATER **Spring Sample Collection**



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Thorium-232 is 50 pCi/L.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Thorium-232 is 15 pCi/L. Surface water at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

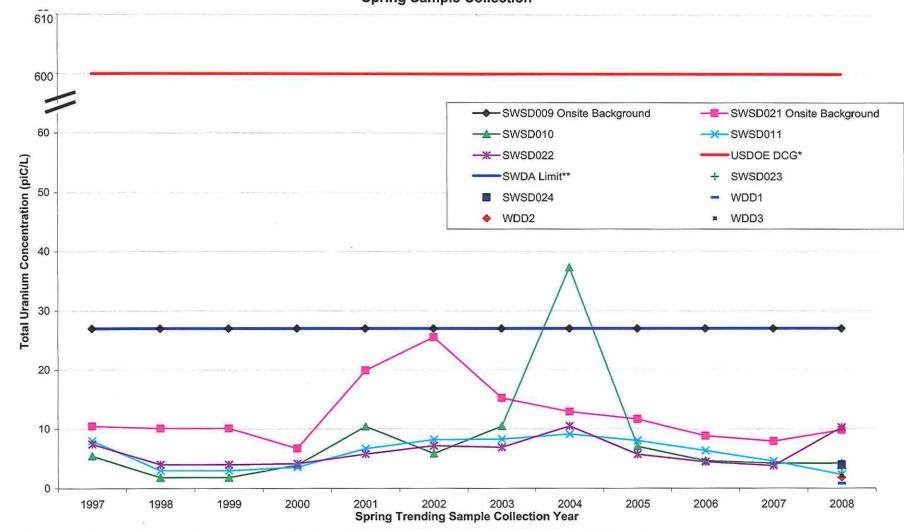
Note 2: 2004 findings for sample SWSD010 was attributed to excess turbidity of the sample.

Note 3: Above thorium-232 values contain detect and non-detect results.

Note 4: New sampling locations are represented by a single symbol.

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FIGURE 18: TOTAL URANIUM CONCENTRATION IN SURFACE WATER
Spring Sample Collection



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Total Uranium is 600 pCi/L over background.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Total Uranium is 27 pCi/L. Surface water at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

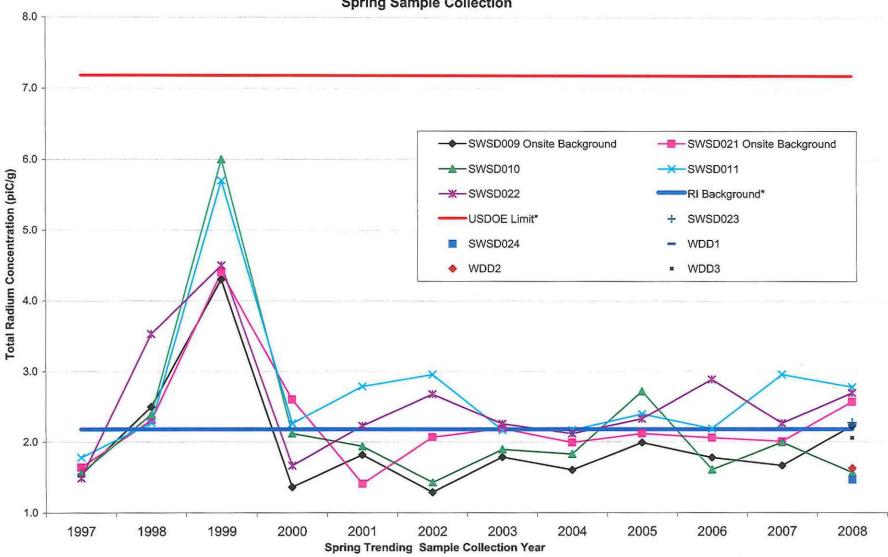
Note 2: 2004 findings for sample SWSD010 was attributed to excess turbidity of the sample.

Note 3: Note: Above combined total uranium (sum of isotopic urnaium) values include both detect and non-detect values.

Note 4: New sampling locations are represented by a single symbol.

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^{*}The United States Department of Energy (USDOE) surface soil cleanup criterion for total radium is 5 pCi/g above background. Above Background value of 7.18 pCi/g is obtained when 5 pCi/g is added to the NFSS surface soil RI background value of 2.18 pCi/g taken from the NFSS Remedial Investigation Report (December, 2007).

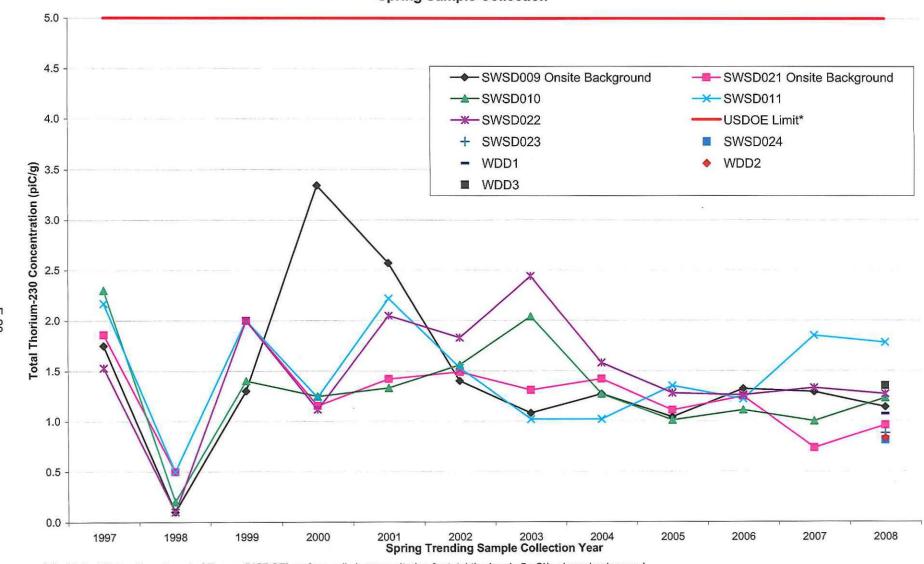
Note 3: New sampling locations are represented by a single symbol.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

Note 2: Above combined radium values include both detect and non-detect values.

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FIGURE 20: THORIUM-230 CONCENTRATION IN SEDIMENT Spring Sample Collection



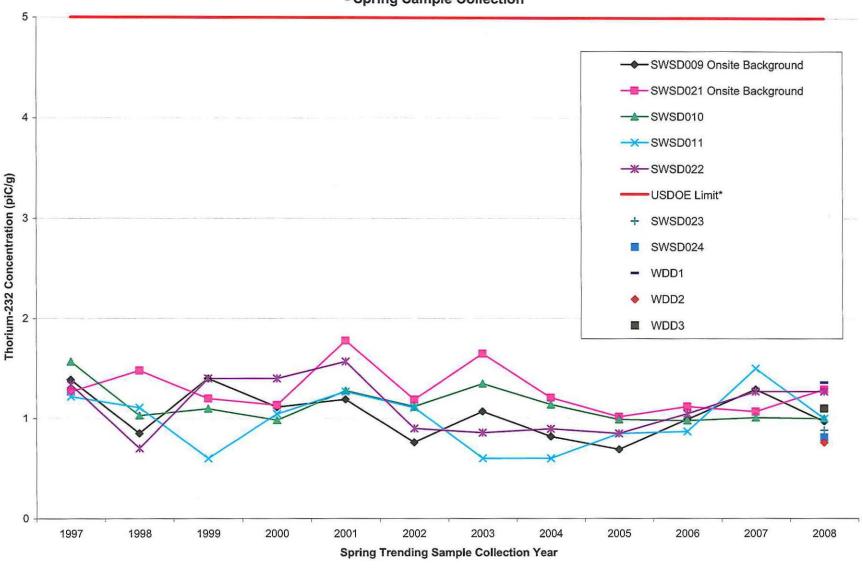
^{*}The United States Department of Energy (USDOE) surface soil cleanup criterion for total thorium is 5 pCi/g above background.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

Note 2: Above values include both detect and non-detect values.

Note 3: New sampling locations are represented by a single symbol.

FIGURE 21: THORIUM-232 CONCENTRATION IN SEDIMENT
- Spring Sample Collection



*The United States Department of Energy (USDOE) surface soil cleanup criterion for total thorium is 5 pCi/g above background.

Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

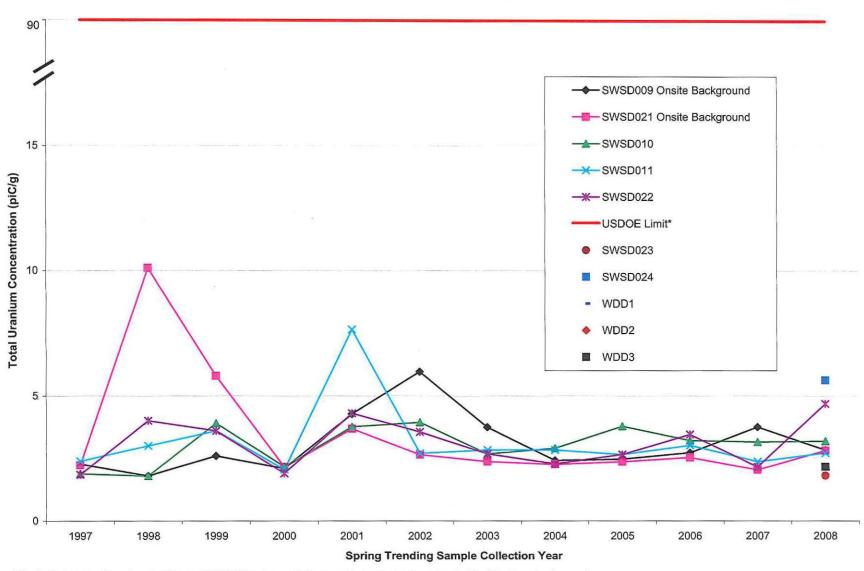
Note 2: Above values include both detect and non-detect values

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Note 3: New sampling locations are represented by a single symbol.

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FIGURE 22: TOTAL URANIUM CONCENTRATION IN SEDIMENT Spring Sample Collection



*The United States Department of Energy (USDOE) surface soil cleanup criterion for total uranium is 90 pCi/g above background.

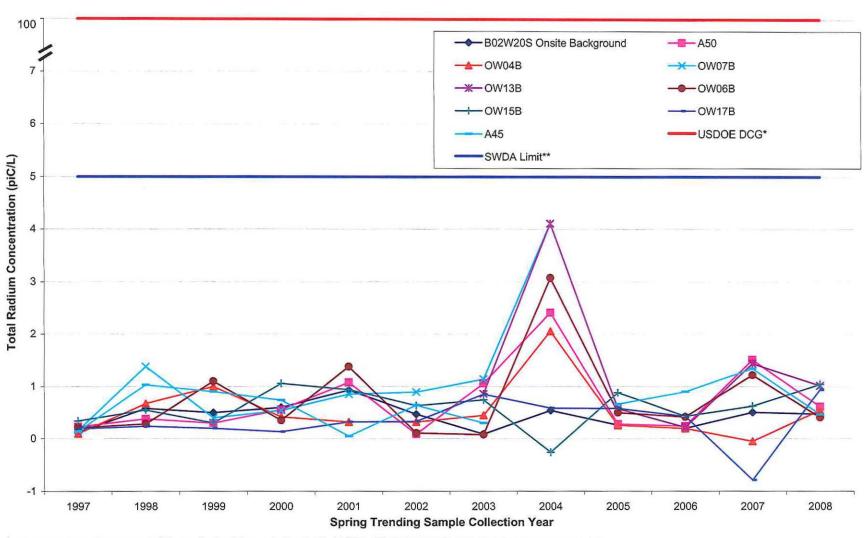
Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

Note 2: New sampling locations are represented by a single symbol.

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FIGURE 23: TOTAL RADIUM (RADIUM-226 AND RADIUM-228) CONCENTRATION IN GROUNDWATER AT NFSS

Spring Sample Collection



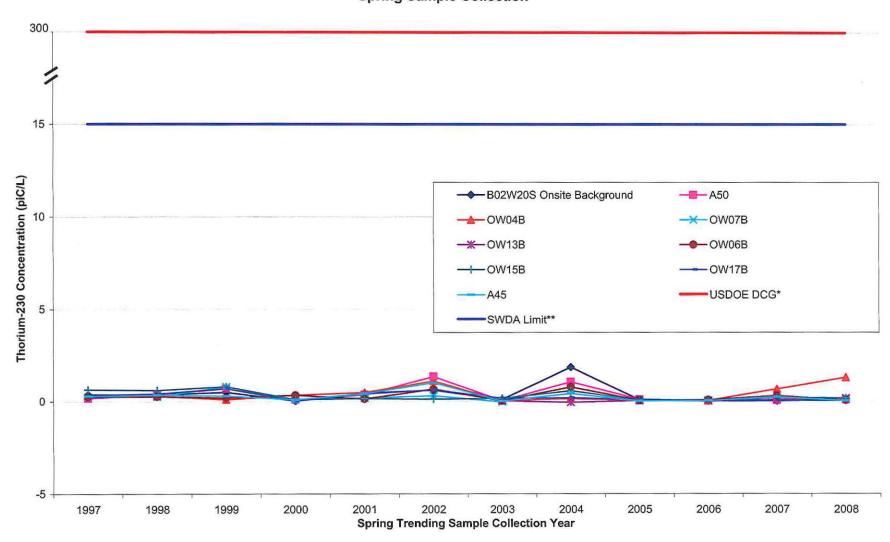
^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for combined Radium-226 & 228 is 100 pCi/L.

Note 2: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Total Radium is 5 pCi/L. Groundwater at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

Note 1: Above combined radium values include both detect and non-detect values.

		*



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Thorium-230 is 300 pCi/L.

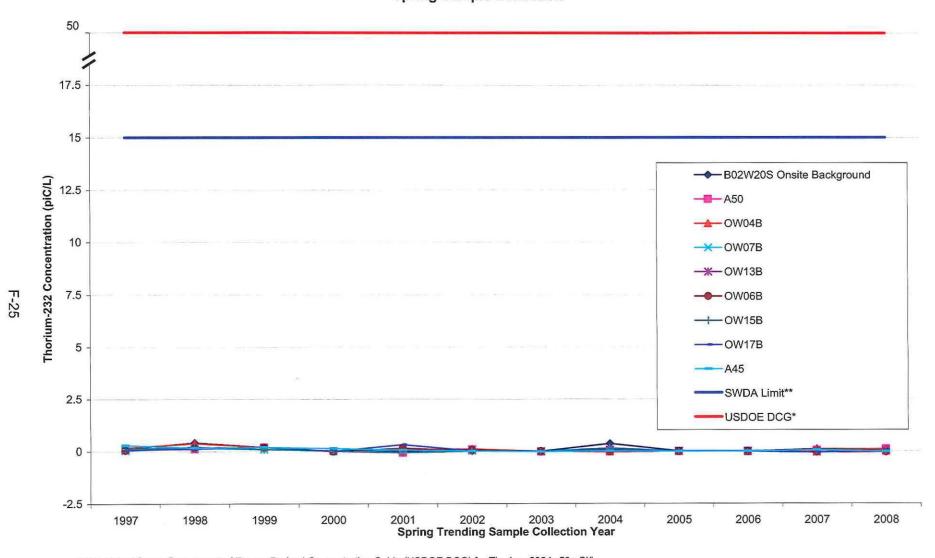
Note 1: Above values contain detect and non-detect results.

Note 2: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Thorium-230 is 15 pCi/L. Groundwater at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

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FIGURE 25: THORIUM-232 CONCENTRATION IN GROUNDWATER AT NFSS
Spring Sample Collection



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Thorium-232 is 50 pCi/L.

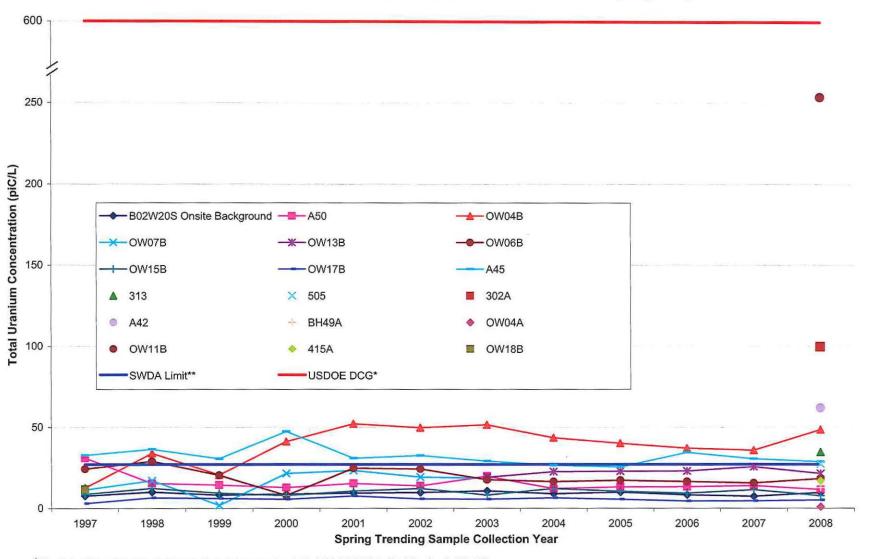
Note 1: Above values contain detect and non-detect results.

Note 2: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Thorium-232 is 15 pCi/L. Groundwater at NFSS is not a drinking water source. The above concentrations are for comparative purposes only.

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FIGURE 26: TOTAL URANIUM CONCENTRATION IN GROUNDWATER AT NFSS - Spring Sample Collection



^{*} The United States Department of Energy Derived Concentration Guide (USDOE DCG) for Total Uranium is 600 pCi/L.

^{**}The Safe Drinking Water Act Maximum Containment Level (SDWA MCL) for Total Uranium is 27 pCi/L. Groundwater at NFSS is not a drinking water source. The above concentrations are for comparative purposes only. Note 1: It should be noted that the above trending data is taken from the spring (April-June) sampling events at NFSS.

Note 2: New sampling locations are represented by a single symbol.

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## APPENDIX B: NFSS CY2008 ENVIRONMENTAL SURVEILLANCE TECHNICAL MEMORANDUM

# CY2008 CALCULATION OF EXTERNAL GAMMA RADIATION DOSE RATES FOR NIAGARA FALLS STORAGE SITE (NFSS)

LEWISTON, NEW YORK

August 2009



U.S. Army Corps of Engineers Buffalo District Office Formerly Utilized Sites Remedial Action Program

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#### 1.0 PURPOSE

This calculation estimates the external gamma radiation dose from the Niagara Falls Storage Site (NFSS), Lewiston, New York (see Figure 1, Appendix A), during calendar year 2008 (CY2008). Hypothetical doses from external gamma radiation to members of the public are calculated from dose measurements using Landauer "Luxel" Optically Stimulated Luminescence dosimeters (OSLs) located at the perimeters of the NFSS and the Interim Waste Containment Structure (IWCS) (see Figure 2, Appendix A). OSLs replaced Thermoluminescent dosimeters (TLDs) in the environmental program beginning this year, 2008.

#### 2.0 ASSUMPTIONS

Doses were calculated for off-site receptors based on these locations for off-site receptors based on the canvas of receptors in CY2006. The hypothetical doses for the nearest resident and off-site worker are reported. The modeling approach described below is considered to be protective of human health (conservative) in calculating hypothetical dose to receptors. The shielding effect of the air has not been included in the calculations. Calculations for the hypothetical annual external gamma radiation doses to the nearest resident and nearest off-site worker used the following assumptions:

Distance from each OSL above the source (the ground) is 3 feet (ft),

Distance from the OSLs to the nearest resident is 500 ft (perpendicular to the western OSL line),

Distance from the OSLs to the nearest off-site worker is 1,020 ft (perpendicular to the eastern OSL line).

Length of the western OSL monitoring line (western perimeter fence) is 2,766 ft,

Length of the eastern OSL monitoring line (east of Campbell Street) is 2,700 ft.

#### 3.0 OSL DATA

At NFSS, OSLs are used to measure gamma radiation from the site and from sources of background radiation. Natural sources of background radiation include cosmic radiation and terrestrial radiation sources. In the United States, the annual average (per capita) cosmic and terrestrial radiation doses are 34 millirem per year (mrem/yr) and 22 mrem/yr, respectively (NCRP Report 160). Annual doses due to background at NFSS are measured at background locations using OSLs. Background dose for the same period of exposure is subtracted from site dose values to estimate the net dose from NFSS. OSLs are located at the facility perimeter and at the perimeter of the IWCS. The OSLs are placed at approximately 3 ft [1.6 meters (m)] above the ground surface. The OSLs measure approximately six-month intervals and are analyzed at an off-site vendor.

Eleven locations around the perimeter of the site and six locations around the IWCS were monitored in CY2008 (see Figure 2, Appendix A). In addition to these locations, there were three background locations (Figure 1, Appendix A). Two environmental OSLs were placed at each monitoring location. The environmental program utilizes two OSLs at each monitoring location for each monitoring period as a quality control check. In addition, if a measurement result is rejected or a OSL is lost, the duplicate reading is assumed for that monitoring period. For CY2008 all OSLs were present.

OSL monitoring data for CY2008 are presented in Table 2 in the Tables section. A time-weighted or normalized annual dose is calculated that accounts for exposure periods having different integration times (a different number of measurement days). Negative net values, when they occur, are retained for calculation purposes.

#### 4.0 ASSESSMENT METHODOLOGY AND RESULTS

Gamma radiation measured at the perimeter fence line represents the dose for full-time occupancy i.e. 24 hours/day and 365 days/year (366 days for a leap year). Dose to an off-site receptor is significantly affected by proximity to the source and the amount of time spent at the receptor location. The estimate of dose to an off-site worker therefore uses a correction factor for occupancy assuming 2000 hours worked per year. The estimate of dose to an off-site resident assumes a full-time occupancy at home. The average net dose rate for CY 2008 at the site perimeter by direction is calculated to be:

Direction	OSL Locations	Calculated Average Net Dose Rate (mrem/year)
North Perimeter	1, 11, 12, and 122	1.23
East Perimeter	1,28,123	6.52
South Perimeter	7, 28, and 29	7.02
West Perimeter	11,13,15,29,36,8,10	1.03

#### 4.1 NEAREST RESIDENT

The dose calculation for the nearest resident uses the line of OSLs along the western perimeter fence. The OSLs along this side of the facility include NFSS perimeter fence monitoring locations 11, 13, 15, 29, and 36, and WCS perimeter fence monitoring locations 8 and 10. The two WCS locations are located close to the western NFSS perimeter fence. These OSL locations are shown in Appendix A, Figure 2. Net dose rates (corrected for background) for these OSLs are summed and divided by the total number of observations (14 for CY2008). This average value represents the annual dose at the site perimeter (D1 = 1.03 mrem for CY2008). The dose contribution to this resident from the southern exposure is insignificant compared to the exposure from the western line source. The western site perimeter dose is then used in the following equation for a line source:

$$D_2 = D_1 * h_1/h_2 * (Arc Tan (L/h_2) / Arc Tan (L/h_1))$$

Where

 $D_2$  = dose calculated at the receptor location from the line source

 $D_1 =$ dose at the site perimeter as described above

 $h_1$  = the distance of the OSLs from the source (3 ft)

 $h_2$  = the distance of the resident from the fence line (500 ft)

L = half the length of line of OSLs measuring the line source (1,383 ft)

Nearest Resident Dose Calculation (Resident southwest of NFSS)

NFSS Perimeter Monitoring Locations 11, 13, 15, 29, and 36 and IWCS Perimeter Monitoring Locations 8 and 10

Where:

 $h_1 = 3$  feet distance of OSL from the source

 $h_2 = 500$  feet distance of resident from the OSLs

L = 1,383 feet half the length of the western line source

 $D_1 = 1.03$  mrem average annual dose at the OSL monitoring locations

 $D_2 = 0.005$  mrem resident annual dose at 500 feet from the OSL

The hypothetical dose to the nearest resident is 5.0 E-03 (or 0.005) mrem for calendar year 2008.

#### 4.2 NEAREST OFF-SITE WORKER

The dose to the nearest off-site worker uses, the line of OSLs, closest to the eastern perimeter fence (Castle Garden Road). The OSLs used include monitoring locations 1, 28, and 123. These OSLs are located along an interior fence east of Campbell Street. Their locations are shown in Figure 2, Appendix A. There are no WCS perimeter fence monitoring locations close to those along the line east of Campbell Street; therefore, none are included in the dose calculations. Net dose rates (corrected for background) for OSL monitoring locations 1, 28, and 123 are summed and divided by the total number observations (6 for CY2008). This average represents the annual dose at the site perimeter (D1 = 6.52 mrem for CY2008).

Nearest Off-Site Worker Dose Calculations (Worker east of NFSS)

NFSS Perimeter Monitoring Locations 1, 28, 123

 $h_1 = 3$  feet distance of OSL from the source

 $h_2 = 1,020$  feet distance of off-site worker from the OSLs

L = 1,350 feet half the length of the eastern line source

 $D_1 = 6.52$  mrem average annual dose at the OSL monitoring locations

 $D_2 = 0.002$  mrem off-site worker annual dose at 1,020 feet from the OSL location

Using the equation above and a correction factor for off-site worker occupancy of 2000/8760 hours the hypothetical dose to the nearest off-site worker is 3.0 E-03 (or 0.003) mrem for calendar year 2008.

#### 5.0 REFERENCES

Bechtel National, Inc. (BNI), 1997. "1996 Public External Gamma Dose," 14501-158-CV-031, Rev. 0, Oak Ridge, TN.

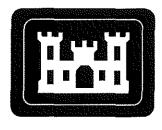
National Council on Radiation Protection and Measurements (NCRP), 2009. "NCRP Report No. 160, Ionizing Radiation Exposure of the Population of the United States," ISBN-13: 978-0-929600-98-7, Bethesda, MD.

## APPENDIX C: NFSS CY2008 ENVIRONMENTAL SURVEILLANCE TECHNICAL MEMORANDUM

### FUSRAP CY2008 NESHAP ANNUAL REPORT FOR NIAGARA FALLS STORAGE SITE (NFSS)

LEWISTON, NEW YORK

**JUNE 2009** 



U.S. Army Corps of Engineers Buffalo District Office Formerly Utilized Sites Remedial Action Program

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Attachment B: Source Term Calculations and Annual Air Releases

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Attachment E: National Climatic Data Center, Niagara Falls, New York

#### **ACRONYMS AND ABBREVIATIONS**

BNI Bechtel National, Inc.

CAP88-PC Ver 3 Clean Air Act Assessment Package-1988, Version 3.0

 $\begin{array}{ll} \text{CFR} & \text{Code of Federal Regulations} \\ \text{E}_w & \text{annual wind erosion emission} \end{array}$ 

FUSRAP Formerly Utilized Sites Remedial Action Program ICRP International Commission on Radiological Protection

IWCS Interim Waste Containment Structure

m² square meter(s)

MEI maximally exposed individual

ML Modern Landfill mph miles per hour

NOAA National Oceanic and Atmospheric Administration

NESHAP National Emission Standards for Hazardous Air Pollutants

NFIA Niagara Falls International Airport

NFSS Niagara Falls Storage Site

USAEC United States Atomic Energy Commission
USACE United States Army Corps of Engineers

UCL upper confidence limit

USDOE United States Department of Energy

USEPA United States Environmental Protection Agency

#### 1.0 INTRODUCTION

In 1974, the United States Atomic Energy Commission (USAEC), a predecessor to the United States Department of Energy (USDOE), instituted the Formerly Utilized Sites Remedial Action Program (FUSRAP). This program is now managed by United States Army Corps of Engineers (USACE) to identify and clean up, or otherwise control sites where residual radioactivity remains from the early years of the nation's atomic energy program or from commercial operations causing conditions that Congress has authorized USACE to remedy under FUSRAP. The Niagara Falls Storage Site (NFSS) is a federally-owned storage site managed under FUSRAP. In October 1997, Congress transferred the responsibility for FUSRAP from USDOE to USACE.

#### 1.1 SITE DESCRIPTION

The Niagara Falls Storage Site (NFSS) is located in the Town of Lewiston in northwestern New York State, northeast of Niagara Falls and south of Lake Ontario (page F-1, Attachment F). NFSS is approximately 77 hectare (~191 acre) site which includes: one former process building (Building 401), one office building (Building 429), an equipment shed, and a 4 hectare (9.9 acre) interim waste containment structure (IWCS). The property is fenced, and public access is restricted.

Land use in the region is primarily rural; however, the site is bordered by a chemical waste disposal facility on the north, a solid waste disposal facility on the east and south, and a Niagara Mohawk Power Corporation right-of-way on the west. The nearest residential areas are approximately 1.1-km southwest of the site; the residences are primarily single-family dwellings.

#### 1.2 SOURCE DESCRIPTION

Beginning in 1944, NFSS was used as a storage facility for radioactive residues and wastes. The residues and wastes are the process by-products of uranium extraction from pitchblende (uranium ore). Waste was also generated from remediation of buildings and process equipment used in the uranium extraction process. The residues originated at other sites and were transferred to NFSS for storage in buildings, on-site pits, and surface piles. Table 1 includes a brief history and description of the major radioactive residues and wastes transferred to NFSS. From 1953 to 1959 and 1965 to 1971, Building 401 was used as a boron-10 isotope separation plant.

Table 1. History and Description of Wastes Transferred to NFSS

Material	Description	Transferred to NFSS		
L-50	Low-activity radioactive residues from the processing of low-grade uranium ores at Linde Air Products, Tonawanda, New York.	1944		
R-10	Low-activity radioactive residues from the processing of low-grade uranium ores at Linde Air Products, Tonawanda, New York.			
F-32	Low-activity radioactive residues from the processing of high-grade uranium ores at Middlesex, New Jersey.	1944 to early 1950		
L-30	Low-activity radioactive residues from the processing of low-grade uranium ores at Linde Air Products, Tonawanda, New York.	1945		
K-65	High-activity radioactive residues from the processing of high-grade uranium ores at Mallinckrodt Chemical Works, St. Louis, Missouri.	1949		
Middlesex Sands	Sand and abraded material from the sandblasting of buildings and process equipment where the F-32 residue was generated at Middlesex Metal Refinement Plant, Middlesex, New Jersey.	1950		

Since 1971, activities at NFSS have been confined to residue and waste storage and remediation. On-site and off-site areas with residual radioactivity exceeding USDOE guidelines were remediated between 1981 and 1992. The materials generated during remedial actions (approximately 195,000 m³) are encapsulated in the IWCS (See Appendix A, Figure 2), which is specifically designed to provide interim storage of the materials. Remedial investigation began at the end of 1999 to determine if any areas of the site contained radioactive or chemical contaminants at levels that could pose an unacceptable risk to human health and the environment. Initial results show that isolated areas of elevated activity do exist.

#### 2.0 REGULATORY STANDARDS

The United States Environmental Protection Agency's (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) are compliance standards that require annual reporting of emissions of radionuclides and radon gas from operations at nuclear facilities.

#### 2.1 40 CFR 61, SUBPART H

40 CFR 61, Subpart H provides standards for reporting emissions of radionuclides (excluding radon-222 and radon-220) into the air from USDOE facilities. Although control and maintenance of the site currently rests with USACE, responsibility for NFSS will return to USDOE following completion of remedial actions. This regulation therefore provides an appropriate standard for NFSS. Compliance with Subpart H is verified by applying the USEPA approved code, CAP88-PC. CAP88-PC Version 3.0 (USEPA 2006)] was used for this year's calculation. The applicable regulation, 40 CFR 61.92 limits exposure of the public to an annual effective dose equivalent of 10 mrcm from radioactive emissions.

#### 2.2 40 CFR 61, SUBPART Q

40 CFR 61, Subpart Q applies to storage and disposal facilities for radium-containing material that emits radon-222 into air. NFSS is specifically identified as one such facility in this subpart (in 40 CFR 61.190). Compliance with Subpart Q is verified by annual monitoring of the IWCS for radon-222 flux. Subpart Q limits radon-222 emission to 20 pCi/m²/s.

#### 3.0 AIR EMISSION DATA

Table 2 summarizes the sources of air emissions. Attachment A contains the annual wind erosion emission  $(E_w)$  calculation. Attachment B contains the radioactive source term calculations and annual air releases.

These calculations use the USEPA air pollution emission factor methodology (AP-42) to estimate the radioactive release from wind erosion, which is then used as the source term in the Clean Air Act Assessment Package (CAP88-PC) model to estimate airborne doses to hypothetically exposed individuals. The annual wind erosion emission estimate uses the most current soil data from the NFSS RI sampling Phases I, II, and III. A 95% upper confidence limit (UCL) without the subtraction of background radioactivity, was calculated for each soil nuclide of concern and used for the 2008 year source term estimate. The area of the entire NFSS was assumed to be uniformly contaminated and to contribute to the source term.

Table 2. Air Emission Data - NFSS

Point Sources	Type Control	Efficiency	Distance to Hypothetical Exposed Individual
none	not applicable	not applicable	not applicable
Non-Point Sources	Type Control	Efficiency	Distance and Direction from Center of Site to Hypothetical Exposed Individual
<i>in situ</i> soil —area source	vegetative cover	90 percent ^a	533 m SE Modern Scale-house Worker 783 m S Greenhouse Worker 914 m SSW Resident 1105 m S Resident (farm) 1250 m WSW Resident 1486 m ESE Resident 2499 m W School 2629 m WNW School
Group Sources	Type Control	Efficiency	Distance to Hypothetical Exposed Individual
none	not applicable	not applicable	not applicable

^a This is the fraction of vegetative cover used to correct emissions (Attachments A,B).

#### 4.0 DOSE ASSESSMENTS

#### 4.1 MODEL SOURCE DESCRIPTION

To determine the dosc from airborne particulates potentially released from NFSS during CY2008, the annual wind erosion emission, E_w (Attachment A) is calculated using local climatological data (Attachment F) from the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center for the Niagara Falls International Airport (NFIA) in Niagara Falls, NY. The complete "Annual Climatological Data" report from NOAA was not available for this year. At the time of the writing this report data is missing for the month of September, Therefore the Northeast Regional Climate Center at Cornell University provided annual data for average temperature and total precipitation for Niagara Falls Airport. E_w is calculated using the USEPA AP-42 methodology for "fugitive emissions" from an "area source" that uses the "fastest mile" wind speed data from local climatological data reports. E_w, in grams emitted, is then applied to the soil nuclide concentration to estimate the source term or annual emissions for each radionuclide. The soil concentration was developed from sample data compiled during Phases I, II, and III of the Remedial Investigation for soil contamination (Attachment B). Contributions from radon gas, in accordance with regulatory guidance, are not considered in this calculation. Annual estimated emissions for each radionuclide were input into the USEPA's CAP88-PC, Version 3.0 code to calculate hypothetical receptor doses. The model estimates resultant doses from airborne particulates to hypothetical individuals at the distances to the nearest residence, commercial/industrial facility, school, and farm as measured from a central location on-site. Hypothetical doses are then corrected for occupancy. Commercial/industrial facility and school occupancy is assumed to be 40 hr/week for 50 weeks/yr). Residential and farm occupancy is assumed to be full-time for 24 hr/day for 365 days/yr. The hypothetical individual receiving the higher of these calculated doses is then identified as the maximally exposed individual (MEI) for airborne particulate dosc.

### 4.2 DESCRIPTION OF DOSE MODEL

#### 4.2.1 CAP88-PC Computer Program

The CAP88-PC model is a set of computer programs, databases, and associated utility programs that estimate the dose and risk from airborne radioactivity emissions. The USEPA NESHAP compliance procedures for airborne radioactivity emissions at USDOE facilities (40 CFR 61.93(a)) require the use of the CAP88-PC model, or other approved procedures to calculate effective dose equivalents to members of the public.

CAP88-PC uses a modified Gaussian plume equation to estimate the average dispersion of radionuclides released from a site. Assessments are performed for a circular grid of distances and directions for a radius of 80 km (50 miles) around the facility. Agricultural arrays of milk cattle, beef cattle and agricultural crop area are generated automatically, requiring the user to supply only the State name or agricultural productivity values. Dose and risk factors for CAP88-PC, Version 3.0 are from Federal Guidance Report 13 and are based on the methods detailed in International Commission on Radiological Protection (ICRP) 72 (ICRP72). The dose calculations presented in this document used the default values for nuclide lung clearance type. These defaults correspond to the recommended values from FGR 13. Deposition velocity and scavenging coefficient are calculated by the code in accordance with USEPA policy. In the CAP88 model nuclides are depleted from the plume by precipitation scavenging, dry deposition and radioactive decay. The default scavenging coefficient is calculated as a function of annual precipitation. The program calculates the effective dose equivalents received by receptors by combining the inhalation and ingestion intake rates and the air and ground surface concentrations using the appropriate dose conversion factors.

### 4.2.2 CAP88-PC Input

Input parameters for CAP88 include:

Radionuclide emissions (Attachment B), Weather data (average annual temperature, total annual precipitation) (Attachment E), Emission source height and area (Section 4.3), and Distance to nearest resident, off-site worker, school, and farm (Section 4.3).

## 4.2.3 CAP88-PC Output

The "Dose and Risk Equivalent Summaries" from CAP88-PC contains the resulting effective dose equivalents for each modeled scenario. The effective dose equivalent summary contains results for 16 compass directions around the facility for the nearest resident, off-site worker, school, and farm. CY2008 CAP88-PC individual receptor and population output summaries are located in Attachment C and D, respectively.

#### 4.3 COMPLIANCE ASSESSMENT

The released activity data from Attachment B is entered into the CAP88-PC modeling program to derive the hypothetical dose to the defined receptors. To derive the dose to the MEI, the CAP88-PC model must have weather data for the appropriate year, information on the emission source, and the distances and directions to the nearest residence, off-site worker,

school, and farm. The following CY2008 meteorological data were entered into CAP88-PC (see Attachment E):

Average temperature

8.7 °C (47.7 °F) NFIA,

Precipitation.

92.6 cm (31.45 inches) ML, and

Mixing height

 $1,000 \, \mathrm{m}$ 

The following emission source and nearest receptor distances and direction information were also entered into the program:

Source height

 $0 \, \mathrm{m}$ 

Source area

 $780,000 \text{ m}^2$ 

Resident

914 m SSW

Resident (farm)

1105 m S

Resident

1250 m WSW

Resident Off-site worker 1486 m ESE, 533 m SE,

Off-site worker

783 m S

School (building)

2499 m W

School (building)

2629 m WNW

The CAP88-PC annual hypothetical dose to the nearest resident, off-site worker, school, and farm at the corresponding directions and distances taken from page six of the "Dose and Risk Equivalent Summaries" document for individual modeling (Attachment C) are:

Resident

1.6 E-03 mrem, SSW @ 914 m,

Off-site worker

6.7 E-03 mrem, SE @ 533 m

School

6.6 E-04 mrem, W @ 2499 m and

Farm

1.3 E-03 mrem, S @ 1105 m.

The hypothetical doses to the nearest off-site worker and school corrected for 2,000 hr of exposure per year are:

Off-site worker 1.5 E-03 mrem and

School

1.5 E-04 mrem.

#### 5.0 SUPPLEMENTAL INFORMATION

#### POPULATION DOSE 5.1

The CAP88-PC model was also used to estimate the hypothetical airborne particulate dose to the population within 80 km of the site. Population data taken from year 2000 census data for New York State and 2001 census data for Ontario, Canada was used to create a population file for CAP88-PC. The effective dose equivalent for the collective population in person-rem/yr is from the CAP88-PC "Dose and Risk Equivalent Summaries" report.

The CAP88-PC annual effective dose for the population within 80 km of the facility (Attachment D) is:

Population:

4.7 E-02 person-rem

#### **RADON-222 FLUX** 5.2

Measurement of radon-222 flux provides an indication of the rate of radon-222 emission from a surface. Radon-222 flux is measured with activated charcoal canisters placed at 15-m intervals across the surface of the IWCS for a 24-hr exposure period. Measurements for CY2008 are presented in Table 4; measurement locations are shown in Appendix A, Figure 2.

Measured results for 2008 ranged from non-detect to 0.23490 pCi/m²/s, with an average (of detects and non-detects) result of 0.05368 pCi/m²/s. As in previous years, these results are well below the 20 pCi/m²/s standard specified in 40 CFR Part 61, Subpart Q, and demonstrate the effectiveness of the containment cell design and construction in mitigating radon-222 migration.

#### 5.3 NON-APPLICABILITY

Requirements from section 61.93(b) of 40 CFR for continuous monitoring from point sources (stacks or vents) are not applicable to NFSS.

### 6.0 REFERENCES

ANL 2003. CAP88-PC Population Files for NFSS, Argonne National Laboratory, Chicago, Illinois.

Bechtel National, Inc. (BNI), 1997. "1996 Public Inhalation Dose" 14501-158-CV-030, Rev. 0, Oak Ridge, TN.

Environmental Protection Agency (EPA), 1995. Compilation of Air Pollutant Emission Factors, Fifth Edition, AP-42, Office of Air Quality Planning and Standards, Research Triangle Park, NC (January).

Environmental Protection Agency (EPA), 2006. CAP88-PC Version 3.0 Computer Code, U.S. Environmental Protection Agency.

Environmental Protection Agency (EPA), 1999. Federal Guidance Report 13, Cancer Risk Coefficients for Environmental Exposure to Radionuclides, EPA99 EPA 402-R-99_001, USEPA Office of Radiation and Indoor Air, Washington, DC.

International Commission on Radiological Protection (ICRP72), 1996. Age Dependent Doses to Members of the Public from Intake of Radionuclides, Part 5, Compilation of Ingestion and Inhalation Dose Coefficients," ICRP 72, Pergamon Press, Oxford.

40 CFR 61, Subpart H. National Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities.

40 CFR 61, Subpart Q. National Emission Standards for Radon Emissions from Department of Energy Facilities.

# ATTACHMENT A ANNUAL WIND EROSION EMISSION CALCULATION

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#### A.1 ANNUAL WIND EROSION

In 2008, the potential source of airborne emissions from NFSS is assumed to be from wind erosion of in-situ soil from the entire NFSS. The AP-42 model for industrial wind erosion for limited flat sources is used. In this model the potential airborne emissions are a function of the number of disturbances of contaminated soil. The following assumptions and calculations are made:

The air release source is wind erosion of in-situ soil from an area (A) of 780,000 m² of vegetation covered soil.

$$A = 780,000 \text{ m}^2$$

The calculation assumes that 90% of this area is covered by grass or vegetation (V).

$$V = 0.90$$

For CY 2008 there is assumed to have been weekly grass cutting for half the year, occurring May through October and an April spring thaw. The number of estimated disturbances (N) is therefore:

$$N = 27$$

The threshold velocity (U_t) for overburden (USEPA 1995 Table 13.2.5-2) is:

$$U_t = 1.02 \text{ m/s}$$

Anemometer height adjustment is not necessary.

 $Z_r$  = reference anemometer height = 10 m

 $Z_a$  = actual anemometer height = 10 m

The roughness height for overburden is 0.3 cm (USEPA 1995 Table 13.2.5-2).

$$Z_0 = 0.3 \text{ cm}$$

The corrected wind speed (U_{rN}) for each period (N) between disturbances (USEPA 1995 Equation 5) is:

$$U_{rN} = U_{aN} \left[ \ln(Z_{r}/Z_o) / \ln(Z_{a}/Z_o) \right]$$
, therefore  $U_{rN} = U_{aN}$ 

The equivalent friction velocity  $(U_N)$  for each period between disturbances (USEPA 1995 Equation 4) is:

$$U_N = 0.053 \ U_{rN}$$

The fastest mile speeds (maximum 2-minute wind speeds^a) from Local Climatological Data reports from NOAA for Niagara Falls International Airport (NFIA) in mph for the period between each disturbance are:

$U_{a1} = 41$	$U_{a2} = 37$	$U_{a3} = 28$	$U_{a4} = 31$	$U_{a5} = 29$	$U_{a6} = 33$
$U_{a7} = 30$	$U_{a8} = 39$	$U_{a9} = 23$	$U_{a10} = 29$	$U_{a11} = 30$	$U_{a12} = 33$
$U_{a13} = 22$	$U_{a14} = 24$	$U_{a15} = 28$	$U_{a16} = 23$	$U_{a17} = 29$	$U_{a18} = 18$
$U_{a19} = 23$	$U_{a20} = 28$	$U_{a21} = 45$	$U_{a22} = 16$	$U_{a23} = 23$	$U_{a24} = 26$
$U_{a25} = 29$	$U_{a26} = 29$	$U_{a27} = 46$			

^aMaximum 2-minute wind speeds can be used to approximate fastest mile wind speeds (USEPA 2004 Table 7-4), however, this calculation applies an uncertainty correction factor, protective of human health, of 1.3 in order to approximate the fastest mile wind speeds.

The equivalent friction velocity in m/s for each period is:

$U_1 = 1.26 \text{ E} + 00$	$U_2 = 1.14 \text{ E+00}$	$U_3 = 8.62 \text{ E-01}$	$U_4 = 9.55 \text{ E-01}$	$U_5 = 8.93 \text{ E-01}$	$U_6 = 1.02 E + 00$
$U_7 = 9.42 \text{ E-}01$	$U_8 = 1.20 \text{ E+00}$	$U_9 = 7.08 \text{ E-}01$	$U_{10} = 8.93 \text{ E-}01$	$U_{11} = 9.24 \text{ E-}01$	$U_{12} = 1.02 \text{ E+00}$
$U_{13} = 6.78 \text{ E-01}$	$U_{14} = 7.39 \text{ E-01}$	$U_{15} = 8.62 \text{ E-}01$	$U_{16} = 7.08 \text{ E-}01$	$U_{17} = 8.93 \text{ E-}01$	$U_{18} = 5.54 \text{ E-01}$
$U_{19} = 7.08 \text{ E-}01$	$U_{20} = 8.62 \text{ E-01}$	$U_{21} = 1.39 \text{ E+00}$	$U_{22} = 4.93 \text{ E-}01$	$U_{23} = 7.08 \text{ E-}01$	$U_{24} = 8.01 \text{ E-}01$
$U_{25} = 8.93 \text{ E-01}$	$U_{26} = 8.93 \text{ E-}01$	$U_{27} = 1.42 \text{ E} + 00$			

The erosion potential ( $P_N$ ) for a dry exposed surface (USEPA 1985 Figure 4-2) is:  $P_N = 58 (U^*-U_t)^2 + 25(U^*-U_t) = 45.47 \text{ g/m}^2$ 

The erosion potentials  $(P_N)$  for each period between disturbances in CY 2008 are all less than or equal to the threshold friction velocity except for  $U_1$ ,  $U_2$ ,  $U_8$ ,  $U_{21}$ , and  $U_{27}$ .

The particle size multiplier (k) for 10  $\mu$  particles (USEPA 1995 Equation 2) is: k=0.5

The emission factor (P) for dry bare soil for 10  $\mu$  particles (USEPA 1995 Equation 2) is:  $P = k \sum P_N = is 22.7 \text{ g/m}^2$ 

Thornthwaite's Precipitation Evaporation Index (PE), used as a measure of average soil moisture, is:

$$PE = 110$$

The corrected emission factor (PM₁₀) for 10  $\mu$  particles (USEPA 1985 Equation 4-1) is: PM₁₀ = P(1-V) / (PE/50)² = 0.47 g/m²/yr

The annual wind erosion emission (E) is calculated to be:

$$E = A (PM_{10}) = 366,388 g soil$$

### A.2 REFERENCES

EPA 2004. Methods for Estimating Fugitive Air Emissions of Radionuclides from Diffuse Sources at USDOE Facilities, Final Report, September 3, 2004.

EPA 1995. AP 42 Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, 1995.

M. J. Changery, *National Wind Data Index Final Report*, HCO/T1041-01 UC-60, National Climatic Center, Asheville, NC, December 1978.

EPA 1985. Rapid Assessment of Exposure to Particulate Emissions from Surface Contaminated Sites, EPA/600/8-85/002, Office of Health and Environmental Assessment, Washington, DC (February).

EPA 1985. AP 42 Compilation of Air Pollution Emission Factors, Third Edition (including supplements 1-7), August 1977.

# ATTACHMENT B SOURCE TERM DEVELOPMENTAND ANNUAL AIR EMISSIONS

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## **B.1** SOURCE TERM DEVELOPMENT

The source term for NFSS NESHAPS calculations was developed considering the radionuclides in the uranium, thorium, and actinium decay series as shown in Table B-1. Concentration data for these radioisotopes were taken from Phases I, II, and III of the Remedial Investigation and are listed in Table B-2. The Phase I sampling was performed from November 1999 through January 2000. The Phase II was performed from August 2000 through October 2000. The Phase III sampling was performed from May 2001 through October 2003. The dataset has been verified to ensure data quality and includes the analysis of soils from biased high locations (i.e., locations that had elevated gamma survey readings). The dataset used for CY 2008 uses higher soil concentrations than in years before CY2004 and more conservatively estimates (biased high) the site concentration values.

The IWCS, completed in 1986 and added to in 1991, is surrounded by sufficient topsoil and compacted clay to consider radionuclide emissions negligible. In 1986, the entire IWCS was covered with 0.9 meters (3 feet) of low-permeability, compacted clay, a 0.3 meter (12 inch)thick layer of loosely compacted soil, 0.15 meter (6 inches) of topsoil and covered with shallow-rooted grass. A clay cutoff wall and dike measuring 3.35 to 8.84 meters (11 to 29 feet) in thickness formed the perimeter. In 1991 additional soil with residual radioactivity from a vicinity property, along with 60 drums containing radioactive material, were placed over the existing IWCS. Six inches of clay was placed over the waste material and two feet of compacted clay was added on top along with 0.46 meter (1.5 feet) of topsoil material. However, the area of the cap was included in the site area estimate.

Radium-226 was detected at an elevated concentration of 1,140 pCi/g in one area during the Phase I remedial investigation. This was analyzed and determined to come from a stone in the sample. Although release rates are based on dust crosion and not buried stones, this detection was used in the source term calculation.

Soil concentration data, listed in Table B-3, are not available for all the radionuclides in Table B-1. If explicit results for a radionuclide were not available, it was assumed that the radionuclide was present in equilibrium with (i.e., at the same concentration as) the nearest long-lived parent. Branching ratios were used to estimate source term concentrations. Table B-3 lists the source term values used in the CAP-88 modeled scenarios.

Table B-1. Radionuclides Considered in NESHAPS Evaluation

Uranium Series	Thorium Series	Actinium Series
U-238	Th-232	U-235
Th-234	Ra-228	Th-231
Pa-234m	Ac-228	Pa-231
Pa-234 (0.13%)	Th-228	Ac-227
U-234	Ra-224	Th-227 (98.62%)
Th-230	*Rn-220 (thoron)	Fr-223 (1.38%)
Ra-226	Po-216	Ra-223
*Rn-222 (radon)	Pb-212	*Rn-219 (actinon)
Po-218	Bi-212	Po-215
Pb-214 (99.98%)	Po-212 (64.07%)	Pb-211 (≈ 100%)
At-218 (0.02%)	Tl-208 (35.93%)	At-215 (0.00023%)
Bi-214	*Pb-208 (stable)	Bi-211
Po-214 (99.979%)		Po-211 (0.273%)
TI-210 (0.021%)		Tl-207 (99.73%)
Pb-210		*Pb-207 (stable)
Bi-210		
Po-210 (≈ 100%)		
Tl-206 (0.00013%)		
*Pb-206 (stable)		
3.3. 33.3. 3.3. 3.4. 7.0.3		.1 .0 11

Nuclides with asterisks (*) were excluded from dose calculations for the following reasons: 1) Radon isotopes including thoron and actinon are specifically excluded per the regulation or 2) nuclides of low abundance and stable nuclides do not contribute significantly to radiological dose.

Nuclides are presented from top to bottom in order of decay starting from the parent radionuclides. Branching fractions are shown, as appropriate, for consideration in source term development. Fractions taken from Shleien, 1992.

Table B-2. Summary of Phases I, II, and III Characterization Data Used in NESHAP Dose Calculations

Analyte	Units	Results	Minimum Detect	Maximum Detect	Average Result	95% UCL of the Mean	Input Exposure Concentration
Radium-226 a	(pCi/g)	552	0.0607	1140	10.23	26.09	26.09
Thorium-228	(pCi/g)	552	0.0481	2.38	1.06	1.08	1.08
Thorium-230	(pCi/g)	552	0.0906	978	8.68	22.74	22.74
Thorium-232	(pCi/g)	551	0.0149	2.07	0.88	0.89	0.89
Uranium-234	(pCi/g)	552	0.0416	8340	20.57	87.4	87.4
Uranium-235	(pCi/g)	553	-0.16	886	1.94	8.97	8.97
Uranium-238	(pCi/g)	551	0.049	8830	21.59	92.38	92.38

^a Includes previous outlier 1,140 pCi/g (NiagAir1 on 25JUL00 at 15:36 using dataset allradnq)

Table B-3. Soil Concentration and Estimated Emission of Radionuclides from NFSS for CY 2008  $\,$ 

	Soil Concentration and CAPP88 Input Source Term							
Uraniı	um Serie	s	Thorium Series			Actinium Series		
Nuclide	pCi/g	Ci/y	Nuclide	pCi/g	Ci/y	Nuclide	pCi/g	Ci/y
U-238	92.38	3.38E-05	Th-232	0.89	3.26E-07	U-235	8.97	3.29E-06
Th-234	92.38	3.38E-05	Ra-228	0.89	3.26E-07	Th-231	8.97	3.29E-06
Pa-234m	92,38	3.38E-05	Ac-228	0.89	3.26E-07	Pa-231	8.97	3.29E-06
Pa-234	92.38	4.40E-08	Th-228	1.08	3.96E-07	Ac-227	8.97	3.29E-06
U-234	87.4	3.20E-05	Ra-224	1.08	3.96E-07	Th-227	8.97	3.24E-06
Th-230	22.74	8.33E-06	Rn-220	1.08	0.00E-00	Fr-223	8.97	4.54E-08
Ra-226	26.09	9.56E-06	Po-216	1.08	3.96E-07	Ra-223	8.97	3.29E-06
Rn-222	26.09	0.00E-00	Pb-212	1.08	3.96E-07	Rn-219	8.97	0.00E-00
Po-218	26.09	9.56E-06	Bi-212	1.08	3.96E-07	Po-215	8.97	3.29E-06
Pb-214	26.09	9.56E-06	Po-212	1.08	2.54E-07	Pb-211	8.97	3.29E-06
At-218	26,09	1.91E-09	Tl-208	1.08	1.42E-07	At-215	8.97	7.56E-12
Bi-214	26.09	9.56E-06	Pb-208 (stable)	1.08	0.00E-00	Bi-211	8.97	3.29E-06
Po-214	26.09	9.56E-06				Po-211	8.97	8.97E-09
Tl-210	26.09	2.01E-09				T1-207	8.97	3.28E-06
Pb-210	26.09	9.56E-06				Pb-207 (stable)	8.97	0.00E-00
Bi-210	26.09	9.56E-06						
Po-210	26,09	9.56E-06						_
T1-206	26.09	1.24E-11						
Pb-206 (stable)	26.09	0.00E-00						

# **B.2** REFERENCES

Shleien, 1992. *The Health Physics and Radiological Health Handbook*, Scinta, Inc., Silver Spring, MD.

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# ATTACHMENT C CAPP88-PC REPORTS – INDIVIDUAL

• Low 

#### C A P 8 8 - P C

Version 3.0

Clean Air Act Assessment Package - 1988

## DOSE AND RISK EQUIVALENT SUMMARIES

Non-Radon Individual Assessment May 13, 2009 04:25 pm

Facility: Niagara Falls Storage Site

Address: 1397 Pletcher Road

City: Lewiston

State: NY

Zip: 14174

Source Category: Area Source Source Type: Area

Emission Year: 2008

Comments: NFSS Tech Memo 2008

Individual Dose

Dataset Name: NFSS 2008 Ind

Dataset Date: 5/13/2009 3:54:00 PM

Wind File: . C:\Program Files\CAP88-

PC30\WindLib\IAG0905.WND

# PATHWAY EFFECTIVE DOSE EQUIVALENT SUMMARY

Dathara	Selected Individual
Pathway ———	(mrem/y)
INGESTION	2.55E-04
INHALATION	8.46E-03
AIR IMMERSION	3.09E-08
GROUND SURFACE	1.01E-05
INTERNAL	8.71E-03
EXTERNAL	1.02E-05
ТОТАТ	8.73E-03

# NUCLIDE EFFECTIVE DOSE EQUIVALENT SUMMARY

	Selected
	Individual
Nuclide	(mrem/y)
U-238	8.01E-04
Th-234	2.75E-06
Pa-234m	1.68E-06
Pa-234	2.62E-10
U-234	9.21E-04
Th-230	9.62E-04
Ra-226	3.38E-04
Rn-222	6.06E-15
Po-218	3.68E-11
Pb-214	1.96E-06
Bi-214	7.27E-06
Po-214	3.38E-10
Pb-210	1.61E-04
Bi-210	7.44E-06
Po-210	2.80E-04
At-218	0.00E+00
Th-232	6.56E-05
Ra-228	6.98E-06
Ac-228	3,20E-08
Th-228	1.28E-04
Ra-224	9.59E-06
Rn-220	2.31E-13
Po-216	2.88E-12
Pb-212	5.75E-07
Bi-212	1.39E-07
Po-212	0.00E+00
T1-208	7.65E-10
U-235	8.43E-05
Th-231	3.26E-08
Pa-231	2.52E-03
Ac-227	1.96E-03
Th-227	2.73E-04
Ra-223	2.02E-04
Rn-219	2.75E-10
Po-215	2.51E-10
Pb-211	4.37E-07
Bi-211	6.57E-08
T1-207	8.26E-08
Po-211	1.04E-13
Fr-223	3.84E-09
TOTAL	8.73E-03

# CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk
Esophagu	4.87E-12
Stomach	1.19E-11
Colon	4.06E-11
Liver	1.74E-10
LUNG	3.38E-09
Bone	1.18E-10
Skin	5.44E-13
Breast	6.93E-12
Ovary	2.07E-11
Bladder	1.15E-11
Kidneys	2.15E-11
Thyroid	9.57E-13
Leukemia	2.25E-11
Residual	4.80E-11
Total	3.86E-09
TOTAL	7.72E-09

# PATHWAY RISK SUMMARY

Pathway	Total Lifetime Fatal Cancer Risk
INGESTION	7.80E-11
INHALATION	3.78E-09
AIR IMMERSION	1.65E-14
GROUND SURFACE	4.63E-12
INTERNAL	3.85E-09
EXTERNAL	4.65E-12
TOTAL	3.86E-09

# NUCLIDE RISK SUMMARY

	Selected Individual Total Lifetime
Nuclide	Fatal Cancer Risk
U-238	6.59E-10
Th-234	2.79E-12
Pa-234m	2.69E-13
Pa-234	1.67E-16
U-234	7.59E-10
Th-230	4.91E-10
Ra-226	2.51E-10
Rn-222	3.29E-21
Po-218	2.02E-17
Pb-214	1.19E-12
Bi-214	3.84E-12
Po-214	1.85E-16
Pb-210	7.81E-11
Bi-210	6.41E-12
Po-210	2.24E-10
At-218	0.00E+00
Th-232	2.91E-11
Ra-228	3.33E-12
Ac-228	2.04E-14
Th-228	1.09E-10
Ra-224	8.25E-12
Rn-220	1.26E-19
Po-216	1.58E-18
Pb-212	4.88E-13
Bi-212	8.21E-14
Po-212	0.00E+00
T1-208	4.22E-16
U-235	6.93E-11
Th-231	1.93E-14
Pa-231	2.38E-10
Ac-227	5.15E-10
Th-227	2.37E-10
Ra-223	1.73E-10
Rn-219	1.49E-16
Po-215	1.38E-16
Pb-211	3.01E-13
Bi-211	3.60E-14
T1-207	1.06E-14
Po-211 Fr-223	5.71E-20 3.25E-15
TOTAL	3.86E-09

# INDIVIDUAL EFFECTIVE DOSE EQUIVALENT RATE (mrem/y)

	Distance (m)								
Direction	n 533	783	914	1105	1250	1486	2499		
N	6.3E-03	2.6E-03	2.0E-03	1.5E-03	1.3E-03	1.0E-03	5.7E-04		
NNW	5.0E-03	2.0E-03	1.5E-03	1.0E-03	8.4E-04	6.2E-04	3.1E-04		
NW	5.0E-03	1.8E-03	1.4E-03	1.0E-03	8.6E-04	6.9E-04	4.0E-04		
WNW	5.3E-03	2.7E-03	2.0E-03	1.4E-03	1.2E-03	9.1E-04	4.6E-04		
W	5.9E-03	2.9E-03	2.3E-03	1.7E-03	1.5E-03	1.2E-03	6.6E-04		
WSW	5.8E-03	2.9E-03	2.1E-03	1.5E-03	1.3E-03	9.5E-04	4.7E-04		
SW	5.4E-03	2.1E-03	1.6E-03	1.2E-03	1.0E-03	8.3E-04	4.7E-04		
SSW	4.8E-03	2.2E-03	1.6E-03	1.2E-03	9.5E-04	7.2E-04	3.7E-04		
S	5.2E-03	2.2E-03	1.7E-03	1.3E-03	1.1E-03	8.6E-04	4.9E-04		
SSE	5.9E-03	2.8E-03	2.1E-03	1.5E-03	1.2E-03	9.2E-04	4.5E-04		
SE ·	6.7E-03	3.0E-03	2.3E-03	1.7E-03	1.4E-03	1.1E-03	6.1E-04		
ESE	7.3E-03	3.5E-03	2.6E-03	1.9E-03	1.5E-03	1.2E-03	5.7E-04		
E	8.3E-03	3.5E-03	2.7E-03	2.0E-03	1.6E-03	1.3E-03	6.5E-04		
ENE	8.7E-03	4.2E-03	3.1E-03	2.2E-03	1.8E-03	1.3E-03	6.2E-04		
NE	8.7E-03	4.1E-03	3.2E-03	2.3E-03	2.0E-03	1.6E-03	8.3E-04		
NNE	7.7E-03	3.9E-03	2.9E-03	2.1E-03	1.7E-03	1.3E-03	6.1E-04		
			Dist	ance (m)					
Direction	2629				***************************************				
	- 4- 0 ·								
N	5.4E-04								
NNW	3.0E-04								
NW	3.8E-04								

irection 2629		
N 5.4E-04		
NNW 3.0E-04		
NW 3.8E-04		
WNW 4.4E-04		
W 6.3E-04		
WSW 4.4E-04		
SW 4.5E-04		
SSW 3.6E-04		
S 4.6E-04		
SSE 4.3E-04		
SE 5.7E-04		
ESE 5.4E-04		
E 6.1E-04		
ENE 5.9E-04		
NE 7.8E-04		
NNE 5.7E-04		
····		

# INDIVIDUAL LIFETIME RISK (deaths) (All Radionuclides and Pathways)

			Dist	cance (m)			
Direction	533	783	914	1105	1250	1486	2499
N	2.8E-09	1.1E-09	8.6E-10	6.4E-10	5.4E-10	4.3E-10	2.3E-10
NNW	2.2E-09	8.8E-10	6.3E-10	4.4E-10	3.5E-10	2.5E-10	1.1E-10
NW	2.2E-09	7.6E-10	5.8E-10	4.3E-10	3.6E-10	2.8E-10	1.5E-10
WNW	2.4E-09	1.2E-09	8.7E-10	6.2E-10	5.0E-10	3.8E-10	1.8E-10
W	2.6E-09	1.3E-09	9.8E-10	7.4E-10	6.3E-10	5.0E-10	2.7E-10
WSW	2.6E-09	1.3E-09	9.3E-10	6.6E-10	5.3E-10	4.0E-10	1.8E-10
SW	2.4E-09	9.3E-10	7.0E-10	5.2E-10	4.4E-10	3.4E-10	1.8E-10
SSW	2.1E-09	9.5E-10	6.9E-10	4.9E-10	4.0E-10	3.0E-10	1.4E-10
S	2.3E-09	9.4E-10	7.2E-10	5.3E-10	4.5E-10	3.6E-10	1.9E-10
SSE	2.6E-09	1.2E-09	8.9E-10	6.3E-10	5.1E-10	3.8E-10	1.8E-10
SE	3.0E-09	1.3E-09	1.0E-09	7.3E-10	6.1E-10	4.8E-10	2.4E-10
ESE	3.2E-09	1.5E-09	1.1E-09	8.1E-10	6.6E - 10	4.9E-10	2.3E-10
E	3.7E-09	1.6E-09	1.2E-09	8.4E-10	7.0E-10	5.4E-10	2.6E-10
ENE	3.9E-09	1.8E-09	1.4E-09	9.5E-10	7.7E - 10	5.7E-10	2.5E-10
NE	3.8E-09	1.8E-09	1.4E-09	1.0E-09	8.5E-10	6.7E-10	3.4E-10
NNE	3.4E-09	1.7E-09	1.3E-09	9.0E-10	7.3E-10	5.5E-10	2.4E-10
<u></u>			Dist	ance (m)			

Direct	ion 2629
N	2.1E-10
NNW	1.1E-10
NW	1.4E-10
WNW	1.7E-10
W	2.5E-10
WSW	1.7E-10
SW	1.7E-10
SSW	1.3E-10
S	1.8E-10
SSE	1.7E-10
SE	2.3E-10
ESE	2.1E-10
E	2.5E-10
ENE	2.3E-10
NE	3.2E-10
NNE	2.3E-10

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ATTACHMENT D

CAP88-PC REPORTS – POPULATION

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#### C A P 8 8 - P C

Version 3.0

Clean Air Act Assessment Package - 1988

# DOSE AND RISK EQUIVALENT SUMMARIES

Non-Radon Population Assessment May 13, 2009 05:53 pm

Facility: Niagara Falls Storage Site

Address: 1397 Pletcher Road

City: Lewiston

State: NY Zip: 14174

Source Category: Area Source

Source Type: Area Emission Year: 2008

Comments: Tech Memo 2008

Cap88V3

Dataset Name: NFSS 2008 Pop

Dataset Date: 5/13/2009 5:31:00 PM

Wind File: C:\Program Files\CAP88-

PC30\WindLib\IAG0905.WND

Population File: C:\Program Files\CAP88-

PC30\Poplib\NFSS2003.POP

# PATHWAY EFFECTIVE DOSE EQUIVALENT SUMMARY

Pathway	Selected Individual (mrem/y)	Collective Population (person-rem/y)
·		
INGESTION	3.80E-05	1.64E-03
INHALATION	3.37E-02	4.54E-02
ATR IMMERSION	1.23E-07	1.67E-07
GROUND SURFACE	3.81E-05	9.24E-05
INTERNAL	3.38E-02	4.70E-02
EXTERNAL	3.83E-05	9.26E-05
$ ext{TOTAL}$	3.38E-02	4.71E-02

# NUCLIDE EFFECTIVE DOSE EQUIVALENT SUMMARY

Nuclides	Selected Individual (mrem/y)	Collective Population (person-rem/y)
	2 127 02	4 225 02
U-238	3.13E-03	4.32E-03
Th-234	8.94E-06	1.55E-05
Pa-234m	6.31E-06	1.53E-05 1.40E-09
Pa-234	1.04E-09	
U-234	3.60E-03	4.97E-03
Th-230	3.77E-03	5.17E-03
Ra-226	1.08E-03	1.92E-03
Rn-222	2.38E-14	5.21E-14
Po-218	1.39E-10	3.36E-10
Pb-214	7.60E-06	1.44E-05
Bi-214	2.76E-05	6.21E-05
Po-214	1.27E-09	3.08E-09
Pb-210	3.53E-04	9.45E-04
Bi-210	2.94E-05	4.06E-05
Po-210	1.01E-03	1.51E-03
At-218	0.00E+00	0.00E+00
Th-232	2.61E-04	3.52E-04
Ra-228	2.78E-05	3.75E-05
Ac-228	1.27E-07	1.72E-07
Th-228	5.08E-04	6.86E-04
Ra-224	3.81E-05	5.16E-05
Rn-220	9.07E-13	1.98E-12
Po-216	1.09E-11	2.63E-11
Pb-212	2.29E-06	3.18E-06
Bi-212	5.47E-07	8.99E-07
Po-212	0.00E+00	0.00E+00
T1-208	3.05E-09	4.11E-09
U-235	3.30E-04	4.56E-04
Th-231	1.25E-07	2.63E-07
Pa-231	9.95E-03	1.35E-02
Ac-227	7.76E-03	1.05E-02
Th-227	1.09E-03	1.47E-03
Ra-223	7.93E-04	1.09E-03
Rn-219	1.08E-09	2.36E-09
Po-215	9.45E-10	2.29E-09
Pb-211	1.71E-06	2.88E-06
Bi-211	2.48E-07	5.99E-07
T1-207	3.11E-07	7.54E-07
Po-211	4.15E-13	5.59E-13
Fr-223	1.53E-08	2.06E-08
TOTAL	3.38E-02	4.71E-02

## CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk	Total Collective Population Fatal Cancer Risk (Deaths/y)
		***************************************
Esophagu	1.70E-11	3.52E-10
Stomach	3.80E-11	8.76E-10
Colon	9.81E-11	3.11E-09
Liver	6.48E-10	1.23E-08
LUNG	1.34E-08	2.35E-07
Bone	4.29E-10	8.41E-09
Skin	1.90E-12	4.93E-11
Breast	2.23E-11	5.21E-10
Ovary	7.90E-11	1.46E-09
Bladder	4.04E-11	8.31E-10
Kidneys	5.85E-11	1.58E-09
Thyroid	3.09E-12	7.04E-11
Leukemia	7.66E-11	1.64E-09
Residual	1.34E-10	3.64E-09
Total	1.51E-08	2.70E-07

# PATHWAY RISK SUMMARY

Pathway	Selected Individual Total Lifetime Fatal Cancer Risk	Total Collective Population Fatal Cancer Risk (Deaths/y)
INGESTION	1.14E-11	6.57E-09
INHALATION	1.50E-08	2.63E-07
AIR IMMERSION	6.58E-14	1.15E-12
GROUND SURFACE	1.74E-11	5.47E-10
INTERNAL	1.51E-08	2.69E-07
EXTERNAL	1.75E-11	5.49E-10
TOTAL	1.51E-08	2.70E-07

## NUCLIDE RISK SUMMARY

Nuclide	Total Lifetime Fatal Cancer Risk	Cancer Risk
		(Deaths/y)
U-238	2.60E-09	4.59E-08
Th-234	8.13E-12	2.02E-10
Pa-234m	1.01E-12	3.17E-11
Pa-234	6.65E-16	1.16E-14
U-234	3.00E-09	5.29E-08
Th-230	1.95E-09	3.41E-08
Ra-226	9.10E-10	1.79E-08
Rn-222	1.29E-20	3.66E-19
Po-218	7.61E-17	2.39E-15
Pb-214	4.62E-12	1.09E-10
Bi-214	1.46E-11	4.26E-10
Po-214	6.98E-16	2.19E-14
Pb-210	2.15E-10	5.78E-09
Bi-210	2.51E-11	4.48E-10
Po-210	8.55E-10	1.56E-08
At-218	0.00E+00	0.00E+00
Th-232	1.16E-10	2.02E-09
Ra-228	1.33E-11	2.32E-10
Ac-228	8.12E-14	1.42E-12
Th-228	4.36E-10	7.61E-09
Ra-224	3,28E-11	5.74E-10
Rn-220	4.95E-19	1.40E-17
Po-216	5.95E-18	1.86E-16
Pb-212	1.94E-12	3.46E-11
Bi-212	3.23E-13	6.58E-12
Po-212	0.00E+00	0.00E+00
T1-208	1.68E-15	2.94E-14
U-235	2.74E-10	4.84E-09
Th-231	7.46E-14	1.86E-12
Pa-231	9.40E-10	1.65E-08
Ac-227	2.04E-09	3.58E-08
Th-227	9.44E-10	1.65E-08
Ra-223	6.84E-10	1.21E-08
Rn-219	5.84E-16	1.65E-14
Po-215	5.18E-16	1.62E-14
Pb-211	1.19E-12	2.32E-11
Bi-211	1.36E-13	4.25E-12
T1-207	3.98E-14	1.25E-12
Po-211	2.28E-19	3.97E-18
Fr-223	1.29E-14	2.26E-13
TOTAL	1.51E-08	2.70E-07

# INDIVIDUAL EFFECTIVE DOSE EQUIVALENT RATE (mrem/y) (All Radionuclides and Pathways)

			Dist	cance (m)			
Direction	n 250	750	1500	2500	3500	4500	7500
N	3.4E-02	2.6E-03	8.1E-04	3.7E-04	2.2E-04	1.5E-04	6.6E-05
NNW	3.4E-02	2.0E-03	4.2E-04	1.1E-04	6.6E-05	4.5E-05	2.0E-05
NW	3.4E-02	1.7E-03	4.9E-04	2.1E-04	1.2E-04	8.0E-05	3.6E-05
WNW	3.4E-02	2.7E-03	7.0E-04	2.7E-04	1.5E-04	1.0E-04	4.6E-05
W	3.4E-02	2.9E-03	9.7E-04	4.7E-04	2.7E-04	1.8E-04	8.2E-05
WSW	3.4E-02	3.0E-03	7.4E-04	2.7E-04	1.6E-04	1.1E-04	4.8E-05
SW	3.3E-02	2.1E-03	6.3E-04	2.7E-04	1.6E-04	1.1E-04	4.8E-05
SSW	3.4E-02	2.2E-03	5.2E-04	1.8E-04	1.0E-04	7.0E-05	3.1E-05
S	3.4E-02	2.1E-03	6.5E-04	2.9E-04	1.7E-04	1.1E-04	5.1E-05
SSE	3.4E-02	2.8E-03	7.1E-04	2.6E-04	1.5E-04	1.0E-04	4.6E-05
SE	3.4E-02	3.0E-03	9.2E-04	4.1E-04	2.4E-04	1.6E-04	7.3E-05
ESE	3.4E-02	3.6E-03	9.6E-04	3.8E-04	2.2E-04	1.5E-04	6.7E-05
E	3.4E-02	3.6E-03	1.1E-03	4.5E-04	2.6E-04	1.8E-04	8.1E-05
ENE	3.4E-02	4.3E-03	1.1E-03	4.3E-04	2.5E-04	1.7E-04	7.7E-05
NE	3.4E-02	4.2E-03	1.4E-03	6.3E-04	3.7E-04	2.5E-04	1.1E-04
NNE	3.4E-02	4.1E-03	1.1E-03	4.1E-04	2.4E-04	1.6E-04	7.4E-05
Direction	15000	25000	35000	ance (m) 45000	55000	65000	75000
N	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-06	1.7E-06
NNW	0.0E+00	0.0E+00	0.0E + 00	0.0E+00	1.0E-06	7.6E-07	6.2E-07
NW	1.3E-05	0.0E+00	0.0E+00	0.0E+00	1.6E-06	1.1E-06	8.9E-07
MNM	1.7E-05	0.0E+00	0.0E+00	0.0E+00	2.0E-06	1.3E-06	1.0E-06
W	3.0E-05	1.3E-05	8.0E-06	5.3E-06	3.6E-06	2.4E-06	1.8E-06
WSW	1.8E-05	7.9E-06	4.9E-06	3.3E-06	2.3E-06	1.6E-06	1.2E-06
SW	1.7E-05	7.9E-06	4.8E-06	3.3E-06	2.3E-06	1.6E-06	0.0E+00
SSW	1.1E-05	5.1E-06	3.1E-06	2.1E-06	0.0E+00	1.1E-06	8.8E-07
S	1.9E-05	8.3E-06	5.1E-06	3.4E-06	2.4E-06	1.7E-06	1.3E-06
SSE	1.6E-05	7.5E-06	4.6E-06	3.1E-06	2.2E-06	1.5E-06	1.2E-06
SE	2.6E-05	1.2E-05	7.2E-06	4.8E-06	3.4E-06	2.4E-06	1.8E-06
ESE	2.4E-05	1.1E-05	6.7E-06	4.5E-06	3.2E-06	2.2E-06	1.8E-06
E	2.9E-05	1.3E-05	8.2E-06	5.5E-06	3.8E-06	2.7E-06	2.1E-06
ENE	2.8E-05	1.3E-05	7.9E-06	5.4E-06	3.8E-06	2.7E-06	2.1E-06
NE	4.1E-05	1.9E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NNE	2.7E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.0E-06

# COLLECTIVE EFFECTIVE DOSE EQUIVALENT (person rem/y) (All Radionuclides and Pathways)

			Dist	ance (m)			
Directi	on 250	750	1500	2500	3500	4500	7500
	3.0E-04	7.3E-05	7.7E-05	5.0E-05	4.0E-05	3.4E-05	9.0E-05
NNW	3.0E-04	5.7E-05	4.2E-05	1.5E-05	1.2E-05	1.0E-05	3.1E-05
NW	3.0E-04	4.8E-05	5.4E-05	3.1E-05	2.2E-05	2.1E-05	3.0E-04
WNW	3.0E-04	7.7E-05	7.8E-05	4.9E-05	3.7E-05	5.9E-05	1.7E-04
W	3.0E-04	8.2E-05	1.1E-04	8.7E-05	4.3E-04	6.1E-05	9.3E-05
WSW	3.0E-04	8.3E-05	8.2E-05	5.1E-05	2.4E-04	2.1E-04	3.2E-04
SW	3.0E-04	5.9E-05	6.9E-05	5.1E-05	5.1E-05	2.3E-04	5.9E-04
SSW	3.0E-04	6.1E-05	5.8E-05	3.3E-05	3.0E-05	1.1E-04	3.5E-04
S	3.0E-04	6.0E-05	7.2E-05	5.4E-05	3.8E-05	3.4E-05	5.3E-04
SSE	3.0E-04	7.9E-05	7.8E-05	4.8E-05	3.3E-05	2.9E-05	2.1E-04
SE	3.0E-04	8.5E-05	1.0E-04	7.7E-05	5.7E-05	4.6E-05	2.3E-04
ESE	3.0E-04	1.0E-04	1.1E-04	7.0E-05	5.6E-05	4.8E-05	1.7E-04
E	3.0E-04	1.0E-04	1.2E-04	8.4E-05	6.8E-05	5.9E-05	1.9E-04
ENE	3.0E-04	1.2E-04	1.2E-04	7.7E-05	4.9E-05	3.5E-05	2.4E-04
NE	3.0E-04	1.2E-04	1.5E-04	7.8E-05	4.2E-05	3.6E-05	3.0E-04
NNE	3.0E-04	1.1E-04	1.0E-04	5.5E-05	4.3E-05	3.4E-05	1.1E-04
			- ·	, ,			
			Dist	ance (m)			
Directi	on 15000	25000	Dist 35000	ance (m) 45000	55000	65000	75000
Directi ———		25000 0.0E+00			55000 0.0E+00	65000 1.6E-04	75000 4.8E-04
	0.0E+00 0.0E+00	<del></del>	35000	45000			4.8E-0
NNM N	0.0E+00	0.0E+00	35000 0.0E+00	45000 0.0E+00	0.0E+00	1.6E-04	
N WUW WU	0.0E+00 0.0E+00	0.0E+00 0.0E+00	35000 0.0E+00 0.0E+00	45000 0.0E+00 0.0E+00	0.0E+00 2.2E-04	1.6E-04 8.1E-04	4.8E-04 4.4E-04
N WWW	0.0E+00 0.0E+00 1.3E-05	0.0E+00 0.0E+00 0.0E+00	35000 0.0E+00 0.0E+00 0.0E+00	45000 0.0E+00 0.0E+00 0.0E+00	0.0E+00 2.2E-04 7.9E-06	1.6E-04 8.1E-04 9.1E-04	4.8E-04 4.4E-04 4.7E-04 9.2E-09
N NNW NW WNW W	0.0E+00 0.0E+00 1.3E-05 5.8E-05	0.0E+00 0.0E+00 0.0E+00 0.0E+00	35000 0.0E+00 0.0E+00 0.0E+00 0.0E+00	45000 0.0E+00 0.0E+00 0.0E+00 0.0E+00	0.0E+00 2.2E-04 7.9E-06 2.0E-09	1.6E-04 8.1E-04 9.1E-04 3.4E-04	4.8E-04 4.4E-04 4.7E-04 9.2E-05 4.6E-04
N WU WW WW	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04	35000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 7.5E-05	45000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.5E-04	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04	4.8E-0.4.4E-0.4.7E-0.9.2E-0.9.4.6E-0.7.1E-0.9
N NNW NW WNW W WSW	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05	35000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05	45000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05	4.8E-04 4.4E-04 4.7E-04 9.2E-04 4.6E-04 7.1E-04 0.0E+04
N NNW NW WNW W	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04	35000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06	4.8E-04 4.4E-04 4.7E-04 9.2E-09 4.6E-04 7.1E-06 0.0E+06 1.3E-09
N NNW NW WNW WSW SW SSW	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05	35000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05	45000 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07	4.8E-04 4.4E-04 4.7E-04
N NNW NW WNW WSW SW SSW S	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03 1.7E-03	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05 4.5E-04	35000 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05 4.8E-04	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06 2.0E-05	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00 2.5E-04	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07 1.0E-04	4.8E-04 4.4E-04 4.7E-04 9.2E-09 4.6E-04 7.1E-00 0.0E+00 1.3E-09 4.8E-09 3.0E-09
N NNW NW WNW WSW SSW SSE SSE	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03 1.7E-03 1.3E-03	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05 4.5E-04 3.5E-03	35000 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05 4.8E-04 4.1E-03	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06 2.0E-05 1.5E-03	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00 2.5E-04 3.5E-04	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07 1.0E-04 6.7E-05	4.8E-04 4.4E-04 4.7E-04 9.2E-09 4.6E-04 7.1E-04 0.0E+04 1.3E-09 4.8E-09
N NNW NW WNW WSW SW SSW S	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03 1.7E-03 4.7E-04	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05 4.5E-04 3.5E-03 1.4E-03	35000 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05 4.8E-04 4.1E-03 1.3E-03	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06 2.0E-05 1.5E-03 5.2E-04	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00 2.5E-04 3.5E-04 1.6E-04	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07 1.0E-04 6.7E-05 5.6E-05	4.8E-04 4.4E-04 4.7E-04 9.2E-05 4.6E-04 7.1E-06 0.0E+06 1.3E-05 4.8E-05 3.0E-05 4.1E-05
N NNW NW WNW WSW SSW SSE SE SE ESE	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03 1.7E-03 4.7E-04 2.7E-04	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05 4.5E-04 3.5E-03 1.4E-03 8.9E-04	35000 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05 4.8E-04 4.1E-03 1.3E-03 1.0E-04	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06 2.0E-05 1.5E-03 5.2E-04 1.1E-04	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00 2.5E-04 3.5E-04 1.6E-04 7.1E-05	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07 1.0E-04 6.7E-05 5.6E-05 1.5E-04	4.8E-04 4.4E-04 4.7E-04 9.2E-09 4.6E-04 7.1E-09 0.0E+09 1.3E-09 4.8E-09 3.0E-09 4.1E-09 5.7E-09 8.2E-09
NNW NW WNW WSW SSW SSE ESE ESE	0.0E+00 0.0E+00 1.3E-05 5.8E-05 7.8E-04 2.6E-04 1.2E-03 1.3E-03 1.7E-03 4.7E-04 2.7E-04 2.8E-04	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.5E-04 3.7E-04 4.4E-05 1.2E-05 4.5E-04 3.5E-03 1.4E-03 8.9E-04 7.0E-04	35000 0.0E+00 0.0E+00 0.0E+00 7.5E-05 3.9E-05 2.8E-04 2.4E-05 4.8E-04 4.1E-03 1.3E-03 1.0E-04 1.3E-04	45000 0.0E+00 0.0E+00 0.0E+00 1.5E-04 2.2E-05 4.5E-05 9.3E-06 2.0E-05 1.5E-03 5.2E-04 1.1E-04 2.1E-04	0.0E+00 2.2E-04 7.9E-06 2.0E-09 7.4E-05 1.2E-05 4.3E-06 0.0E+00 2.5E-04 3.5E-04 1.6E-04 7.1E-05 5.9E-05	1.6E-04 8.1E-04 9.1E-04 3.4E-04 4.0E-04 1.5E-05 1.1E-06 1.5E-07 1.0E-04 6.7E-05 5.6E-05 1.5E-04 1.0E-04	4.8E-04 4.4E-04 4.7E-04 9.2E-03 4.6E-04 7.1E-06 0.0E+06 1.3E-03 4.8E-03 3.0E-03 4.1E-03 5.7E-03

# INDIVIDUAL LIFETIME RISK (deaths) (All Radionuclides and Pathways)

			Dist	tance (m)			
Direction	n 250	750	1500	2500	3500	4500	7500
N	1.5E-08	1.2E-09	3.6E-10	1.7E-10	9.6E-11	6.5E-11	2.9E-11
MMM	1.5E-08	9.0E-10	1.9E-10	5.1E-11	2.9E-11	2.0E-11	9.0E-12
NW	1.5E-08	7.7E-10	2.2E-10	9.2E-11	5.3E-11	3.6E-11	1.6E-11
WNW	1.5E-08	1.2E-09	3.1E-10	1.2E-10	6.8E-11	4.6E-11	2.1E-11
W	1.5E-08	1.3E-09	4.3E-10	2.1E-10	1.2E-10	8.2E-11	3.7E-11
WSW	1.5E-08	1.3E-09	3.3E-10	1.2E-10	7.1E-11	4.8E-11	2.2E-11
SW	1.5E-08	9.4E-10	2.8E-10	1.2E-10	7.1E-11	4.8E-11	2.2E-11
SSW	1.5E-08	9.7E-10	2.3E-10	8.0E-11	4.6E-11	3.1E-11	1.4E-11
S	1.5E-08	9.5E-10	2.9E-10	1.3E-10	7.5E-11	5.1E-11	2.3E-11
SSE	1.5E-08	1.3E-09	3.1E-10	1.2E-10	6.7E-11	4.5E-11	2.0E-11
SE	1.5E-08	1.4E-09	4.1E-10	1.8E-10	1.1E-10	7.2E-11	3.2E-11
ESE	1.5E-08	1.6E-09	4.3E-10	1.7E-10	9.7E-11	6.6E-11	3.0E-11
E	1.5E-08	1.6E-09	4.7E-10	2.0E-10	1.2E-10	8.0E-11	3.6E-11
ENE	1.5E-08	1.9E-09	5.0E-10	1.9E-10	1.1E-10	7.5E-11	3.4E-11
NE	1.5E-08	1.9E-09	6.0E-10	2.8E-10	1.6E-10	1.1E-10	5.0E-11
NNE	1.5E-08	1.8E-09	4.8E-10	1.8E-10	1.1E-10	7.3E-11	3.3E-11
			Diat	:anaa (m)			
			DISC	ance (m)			
Direction	n 15000	25000	35000	45000	55000	65000	75000
N	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.3E-13	7.3E-13
NNW	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.4E-13	3.1E-13	2.5E-13
NW	5.7E-12	0.0E+00	0.0E+00	0.0E+00	6.9E-13	4.8E-13	3.7E-13
WNW	7.4E-12	0.0E+00	0.0E+00	0.0E+00	8.6E-13	5.7E-13	4.4E-13
W	1.3E-11	5.9E-12	3.5E-12	2.3E-12	1.6E-12	1.0E-12	8.0E-13
WSW	7.8E-12	3.5E-12	2.1E-12	1.4E-12	9.9E-13	6.8E-13	5.3E-13
SW	7.8E-12	3.5E-12	2.1E-12	1.4E-12	9.8E-13	6.8E-13	0.0E+00
SSW	5.0E-12	2.3E-12	1.4E-12	9.3E-13	0.0E+00	4.6E-13	3.7E-13
S	8.2E-12	3.7E-12	2.2E-12	1.5E-12	1.0E-12	7.1E-13	5.6E-13
SSE	7.3E-12	3.3E-12	2.0E-12	1.4E-12	9.5E-13	6.7E-13	5.2E-13
SE	1.2E-11	5.2E-12	3.2E-12	2.1E-12	1.5E-12	1.0E-12	8.0E-13
ESE	1.1E-11	4.9E-12	3.0E-12	2.0E-12	1.4E-12	9.7E-13	7.6E-13
E	1.3E-11	5.9E-12	3.6E-12	2.4E-12	1.7E-12	1.2E-12	9.2E-13
ENE	1.2E-11	5.7E-12	3.5E-12	2.4E-12	1.7E-12	1.2E-12	9.3E-13
NE	1.8E-11	8.4E-12	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NNE	1.2E-11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.8E-13
	_	_	_	_	-	-	

# COLLECTIVE FATAL CANCER RATE (deaths/y) (All Radionuclides and Pathways)

		····					
		•	. Dist	ance (m)			
Directio	n 250	750	1500	2500	3500	4500	7500
N	1.8E-09	4.2E-10	4.5E-10	2.9E-10	2.3E-10	2.0E-10	5.2E-10
NNW	1.8E-09	3.3E-10	2.4E-10	8.9E-11	7.2E-11	5.8E-11	1.8E-10
NW	1.7E-09	2.8E-10	3.1E-10	1.8E-10	1.3E-10	1.2E-10	1.7E-09
MNM	1.7E-09	4.4E-10	4.5E-10	2.8E-10	2.1E-10	3.4E-10	1.0E-09
W	1.7E-09	4.8E-10	6.3E-10	5.0E-10	2.5E-09	3.5E-10	5.4E-10
WSW	1.7E-09	4.8E-10	4.8E-10	2.9E-10	1.4E-09	1.2E-09	1.9E-09
SW	1.7E-09	3.4E-10	4.0E-10	2.9E-10	2.9E-10	1.3E-09	3.4E-09
SSW	1.7E-09	3.5E-10	3.3E-10	1.9E-10	1.7E-10	6.2E-10	2.0E-09
S	1.7E-09	3.5E-10	4.2E-10	3.1E-10	2.2E-10	1.9E-10	3.1E-09
SSE	1.8E-09	4.6E-10	4.5E-10	2.8E-10	1.9E-10	1.7E-10	1.2E-09
SE	1.8E-09	4.9E-10	5.9E-10	4.4E-10	3.3E-10	2.6E-10	1.3E-09
ESE	1.8E-09	5.8E-10	6.1E-10	4.0E-10	3.2E-10	2.8E-10	9.7E-10
E	1.7E-09	5.9E-10	6.8E-10	4.9E-10	3.9E-10	3.4E-10	1.1E-09
ENE	1.8E-09	7.0E-10	7.2E-10	4.4E-10	2.8E-10	2.0E-10	1.4E-09
NE	1.8E-09	6.8E-10	8.5E-10	4.5E-10	2.4E-10	2.1E-10	1.8E-09
NNE	1.8E-09	6.6E-10	6.0E-10	3.2E-10	2.5E-10	1.9E-10	6.4E-10
				ance (m)			
N	3.5000	05000	25000	45000	FF000	CE000	75000
Direction	n 15000	25000	35000	45000	55000	65000	75000
Direction N	n 15000 0.0E+00	25000 0.0E+00	35000 0.0E+00	45000 0.0E+00	55000 0.0E+00	65000 9.3E-10	2.7E-09
	0.0E+00 0.0E+00	0.0E+00 0.0E+00				9.3E-10 4.3E-09	2.7E-09 2.3E-09
N NNW NW	0.0E+00 0.0E+00 7.4E-11	0.0E+00 0.0E+00 0.0E+00	0.0E+00 0.0E+00 0.0E+00	0.0E+00 0.0E+00 0.0E+00	0.0E+00 1.2E-09 4.4E-11	9.3E-10 4.3E-09 5.0E-09	2.7E-09 2.3E-09 2.6E-09
N NNW NW WNW	0.0E+00 0.0E+00 7.4E-11 3.3E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00	0.0E+00 0.0E+00 0.0E+00 0.0E+00	0.0E+00 0.0E+00 0.0E+00 0.0E+00	0.0E+00 1.2E-09 4.4E-11 1.1E-14	9.3E-10 4.3E-09 5.0E-09 1.9E-09	2.7E-09 2.3E-09 2.6E-09 5.0E-10
N NNW NW WNW	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09
N NNW NW WNW W	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11
N NNW NW WNW W	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00
N NNW NW WNW W SW SSW	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11
N NNW NW WNW WSW SW SSW S	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10
N NNW NW WNW WSW SW SSW S	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09 7.4E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10
N NNW NW WNW WSW SW SSW SSE SE	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 9.6E-09 7.4E-09 2.7E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08 8.1E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08 7.7E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09 3.0E-09	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09 8.9E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10 3.2E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10 1.7E-10 2.3E-10
N NNW NW WNW WSW SSW SSE SE SE	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09 7.4E-09 2.7E-09 1.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08 8.1E-09 5.1E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08 7.7E-09 6.0E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09 3.0E-09 6.3E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09 8.9E-10 4.0E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10 3.2E-10 8.6E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10 1.7E-10 2.3E-10 3.2E-10
N NNW NW WNW WSW SSW SSE SE ESE ESE	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09 2.7E-09 1.6E-09 1.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08 8.1E-09 5.1E-09 4.0E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08 7.7E-09 6.0E-10 7.4E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09 3.0E-09 6.3E-10 1.2E-09	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09 8.9E-10 4.0E-10 3.3E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10 3.2E-10 8.6E-10 5.8E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10 1.7E-10 2.3E-10 3.2E-10 4.6E-10
N NNW NW WNW WSW SSW SSE ESE ESE ESE ENE	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09 1.6E-09 1.6E-09 9.2E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08 8.1E-09 5.1E-09 4.0E-09 1.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08 7.7E-09 6.0E-10 7.4E-10 4.3E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09 3.0E-09 6.3E-10 1.2E-09 2.1E-10	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09 8.9E-10 4.0E-10 3.3E-10 1.2E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10 3.2E-10 8.6E-10 5.8E-10 5.1E-11	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10 1.7E-10 2.3E-10 3.2E-10 4.6E-10 2.3E-11
NNW NW WNW WSW SSW SSE SE ESE ESE	0.0E+00 0.0E+00 7.4E-11 3.3E-10 4.5E-09 1.5E-09 7.1E-09 7.5E-09 9.6E-09 2.7E-09 1.6E-09 1.6E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.9E-09 2.1E-09 2.5E-10 6.7E-11 2.6E-09 2.0E-08 8.1E-09 5.1E-09 4.0E-09	0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.3E-10 2.2E-10 1.6E-09 1.4E-10 2.8E-09 2.3E-08 7.7E-09 6.0E-10 7.4E-10	0.0E+00 0.0E+00 0.0E+00 0.0E+00 8.4E-10 1.3E-10 2.6E-10 5.2E-11 1.1E-10 8.3E-09 3.0E-09 6.3E-10 1.2E-09	0.0E+00 1.2E-09 4.4E-11 1.1E-14 4.2E-10 7.0E-11 2.4E-11 0.0E+00 1.4E-09 2.0E-09 8.9E-10 4.0E-10 3.3E-10	9.3E-10 4.3E-09 5.0E-09 1.9E-09 2.2E-09 8.6E-11 6.0E-12 8.4E-13 5.7E-10 3.7E-10 3.2E-10 8.6E-10 5.8E-10	2.7E-09 2.3E-09 2.6E-09 5.0E-10 2.6E-09 3.9E-11 0.0E+00 7.0E-11 2.7E-10 1.7E-10 2.3E-10 3.2E-10

# ATTACHMENT E

NATIONAL CLIMATIC DATA CENTER, NIAGARA FALLS, NEW YORK

U.S. Department of Commerce National Oceanic & Atmospheric Administration

## ANNUAL CLIMATOLOGICAL SUMMARY (2008)

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801

Station: 305840/99999, NIAGARA FALLS INTL AP, New York

Elev. 1702 ft. above sea level

Lat. Unkown, Lon. 785°7 'W

Date					Те	mper	ature	(° F	<u>)</u>						-		Pre	cipita	tion (	inche	es)		•	
Elem->	MMXT	MMNT	MNTM	DPNT	HTDD	CLDD	EMXT		EMNP		DT90	DX32	DT32	DT00	TPCP	DPNP	EMXP		TSNW	MXSD		DP01	DP05	DP10
				Depart.	Heating	Cooling						lumber	of Day	S		Depart.	Greatest O	bserved	Sn	ow, Slee	t	Nun	nber of l	Days
2008 Month	Mean Max.	Mean Min.	Mean	from Normal	Degree Days	Degree Days	Highest	High Date	Lowest	Low Date		Max <=32°		Min <=0°	Total	from Normal	Day	Date	Total Fall	Max Depth	Max Date	>=.10	>≃.50	>=1.0
1	35.8	23.0	29.4	5.2	1098	0	63	8	3	3	0	12	25	0	1.52	-1.03	0.27	11	13.2	3	27	6	0	0
2	31.9	17.4	24.7	-0.6	1162	0	50	17	-1	29	0	14	28	1	3.59	1.27	0.96	6	20.7	4	13	8	2	. 0
3	37.7	23.0	30.4	-3.4	1064	0	60	3	7	11	0	8	29	0	3.44	0.81	0.76	8	26.6	14	9	10	2	. 0
4	61.0	37.8	49.4	4.3	459	1	85	19	23	3	0	0	9	0	1.27	-1.19	0.81	11	0.0T	OT	1	2	1	0
5	63.2	41.9	52.6	-4.5	376	0	76	27	28	1	0	0	2	0	2.50	-0.44	0.67	31	0.0	0		8	2	. 0
6	77.1	58.9	68.0	2.2	37	137	90	10	49	19	1	0	0	0	3.54	0.28	0.71	17	0.0	0		11	1	0
7	80.6	61.1	70.9	-0.5	5	197	89	13	50	4	0	0	0	0	4.35	1.66	0.63	10	0.0	0		12	4	0
8	77.0	56.6	66.8	-2.8	32	95	88	23	48	20	0	0	0	0	3.32	0.29	0.61	6	0.0	0		10	1	0
9	73.1	52.0	62.6	0.9	119	54	86	15	43	23	0	0	0	0	2.86	-0.66	0.85	14	0.0	0		6	2	. 0
10	58.4	38.1	48.3	-1.8	512	0	76	13	27	30	0	0	6	0	3.25	0.58	0.73	16	0.0T	TO	29	11	1	0
11	46.2	32.2	39.2	-0.7	769	0	71	8	17	23	0	4	12	0	2.23	-0.75	0.73	16	9.6	5	20	7	1	0
12	37.6	22.5	30.1	0.4	1076	0	62	29	6	21	0	15	29	0	4.58	1.70	0.91	10	35.2	14	22	13	3	0
Annual	56.6	38.7	47.7	-0.1	6709	484	90	Jun	-1	Feb	1	53	140	1	36.45	2.52	0.96	Feb	105.3	14	Dec	104	20	0

### Notes

#### (blank) Not reported.

- + Occurred on one or more previous dates during the month. The date in the Date field is the last day of occurrence. Used through December 1983 only.
- A Accumulated amount. This value is a total that may include data from a previous month or months or year (for annual value).
- B Adjusted Total, Monthly value totals based on proportional available data across the entire month.
- E An estimated monthly or annual total.

- X Monthly means or totals based on incomplete time series, 1 to 9 days are missing. Annual means or totals include one or more months which had 1 to 9 days that were missing.
- M Used to indicate data element missing.
- T Trace of precipitation, snowfall, or snowdepth. The precipitation data value will = zero

Elem- Element Types are included to provide cross-reference for users of the > NCDC CDO System.

Station Station is identified by: CoopID/WBAN, Station Name, State.

S Precipitation amount is continuing to be accumulated. Total will be included in a subsequent monthly or yearly value. Example: Days 1-20 had 1.35 inches of precipitation, then a period of accumulation began. The element TPCP would then be 00135S and the total accumulated amount value appears in a subsequent monthly value. If TPCP = "M" there was no precipitation measured during the month. Flag is set to "S" and the total accumulated amount appears in a subsequent monthly value.

Dynamically generated Mon Jun 22 10:04:32 EDT 2009 via <a href="http://hurricane/ancsum/ACS">http://hurricane/ancsum/ACS</a>
Data provided from the NCDC CDO System
Additional documentation can be found at <a href="http://cdo.ncdc.noaa.gov/cdo/3220doc.txt">http://cdo.ncdc.noaa.gov/cdo/3220doc.txt</a>

EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

(final)

NOAA, National Climatic Data Center

Month: 01/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS , NY

VER2

Lat. 43.107 Lon. -78.945

	11tii. t	11,20	00																		_			
D	Temper (Fahrer						Degree Base 65	e Days Degrees	St	ın ·			ice on nd(in)	Precip (In)	itation	Pressure(inc	hes of Hg)	Wind: Spe Dir=tens						П
a t e	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST	Significant Weather	1200 UTC Depth	1800 UTC		2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant	Res		ma 5-sec Speed	ond 2	max 2-minu peed	a te t
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 26
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NOAA, National Climatic Data Center

Month: 02/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724) NIAGARA FALLS, NY

Lat. 43.107 Lon. -78.945

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NOAA, National Climatic Data Center

Month: 03/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS , NY

Lat. 43.107 Lon. -78.945

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NOAA, National Climatic Data Center

Month: 04/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724) NIAGARA FALLS, NY

Lat. 43.107 Lon. -78.945

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(final)

NOAA, National Climatic Data Center

Month: 05/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS , NY

VER2

Lat. 43.107 Lon. -78.945

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NOAA, National Climatic Data Center

Month: 08/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS , NY

Lat. 43.107 Lon. -78.945

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(final)

NOAA, National Climatic Data Center

Month: 09/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)

NIAGARA FALLS, NY

VER2

Lat. 43.107 Lon. -78.945

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a t e	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST	Significant Weather	1200 UTC Depth		LST	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed		Avg. Speed	ma: 5-seci Speed	ond .	max 2-minu Speed	
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De	gree Da	Tot ng: 11	Month al Dep 9	-	son to Date Il Departure M		~ *************************************		Greatest 2 Great	24-hr Preci est 24-hr S	pitation: 0.74 Date: 13 Snowfall: M Date: M v Depth: M Date: M  Number of Days with		Max T Max T	emp >		Sea Level I  Maximum ( Minimum (  Min Temp < Min Temp < Heavy Fog	30.53 2 29.18 1 =32: 0	Date Time (LST) 23 1027 14 2001	)	Precip	itation itation all >=1	>=,10	inch:	
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(final)

NOAA, National Climatic Data Center

Month: 10/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS , NY

VER2

Lat. 43.107 Lon. -78.945

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D		erature enheit)					Degree Base 65		St	ın		Snow, Grou	/lce on nd(ln)	Precip (In)	itation	Pressure(inc	hes of Hg	Wind: Sp Dir=tens						$T_{n}$
a t e	Max	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST	Significant Weather	1200 UTC Depth	UTC	LST	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultan Speed	Res	Ĭ	ma 5-sec Speed	ond :	max 2-mini peed	
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* E	XTŔĔĨ	/E FOR	THE M	IONTH - L	AST OCCU	RRENC	E IF MORE	THAN ONE	<u> </u>			,	2	dersto	ins :	Heavy Fog	:1		-		all >=1	.0 inch	Ver	sion /FR2

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(final)

NOAA, National Climatic Data Center

Month: 11/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724)
NIAGARA FALLS, NY

Lat. 43.107 Lon. -78.945

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a t e	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST	Significant Weather		1800 UTC Water Equiv	LST Snow	LST	Avg. Station	Avg. Sea Level	Resultan Speed	tRes Dír	Avg. Speed	ma 5-sec Speed	ond	ma: 2-min Speed	ute	a t e
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EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

(final)

NOAA, National Climatic Data Center

Month: 12/2008

Station Location: NIAGARA FALLS INTL AIRPORT (04724) NIAGARA FALLS, NY

VER2

Lat. 43.107 Lon. -78.945

_	Temperature Degree Days (Fahrenheit) Base 65 Degrees							Sun			Snow/Ice on Precipitation Ground(In) (In)			Pressure(inc	Wind: Sp										
D a	(Fanrei			Dep	Avg.	Avg			Sunrise	Sunset	Significant Weather	1200 UTC		1800 2400		Avg.	Avg.	Dir=tens Resultant	П		max		ma: 2-min		D a
ė	Max.	Min.	Avg.	From Normal	Dew pt.	Wet Bulb	Heating	Cooling	LST	LST		Depth		Snow Fall	LST Water Equiv	Station	Sea Level			Speed	Speed		peed		ė
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
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* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.									=							·L					Da	ata '	Ver	sio	r