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Monticello Mill Tailings Site

Site Environmental Report for Calendar Year 2000

October 2001

U.S. Department of Energy

GRAND JUNCTION OFFICE

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Abbreviations and Acronyms

ACM	asbestos-containing materials
BLM	U.S. Bureau of Land Management
CDR	Covenant Deferral Request
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FFA	Federal Facility Agreement
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
GJO	Grand Junction Office
HDPE	high density polyethylene
LTSM	Long-Term Surveillance and Maintenance
MRAP	Monticello Remedial Action Project
MMTS	Monticello Mill Tailings Site
NEPA	National Environmental Policy Act
OU	operable unit
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PeRT	Permeable Reactive Treatment wall (barrier)
PM_{10}	particulate matter less than or equal to 10 micrometers in diameter
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SER	Site Environmental Report
SSAB	Site Specific Advisory Board
SWMP	*Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties*
TDS	total dissolved solids
TSCA	Toxic Substances Control Act
TSF	Temporary Storage Facility
U.A.C.	Utah Administrative Code
UDEQ	Utah Department of Environmental Quality
UPDES	Utah Pollutant Discharge Elimination System
WWTP	Wastewater Treatment Plant

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Executive Summary

U.S. Department of Energy (DOE) Order 5400.1, ‘General Environmental Protection Program” and DOE Order 231.1, “Contractor Requirements Document, Environment Safety and Health Reporting” require that "...all DOE facilities that conduct significant environmental protection programs shall prepare an annual Site Environmental Report (SER)." The purpose of this report "... is to present summary environmental data so as to characterize site environmental management performance, confirm compliance with environmental standards and requirements, and highlight significant programs and efforts."

This SER presents an update of environmental activities conducted during calendar year 2000 at the Monticello Mill Tailings Site (MMTS) in Monticello, Utah. With the exception of environmental monitoring activities (air, surface water, groundwater monitoring, etc.) that may occur on private property, this SER addresses primarily activities performed by DOE on DOE owned and administered properties in Monticello, Utah. DOE remedial actions conducted on privately owned properties are outside the scope of this document. MACTEC–ERS L.L.C., the technical assistance and remediation contractor for the DOE-Grand Junction Office (GJO), prepared this report in accordance with the substantive requirements of DOE Order 5400.1, “General Environmental Protection Program,” DOE Order 231.1, “Contractor Requirements Document, Environment Safety and Health Reporting,” and DOE Order 5400.5, “Radiation Protection of the Public and the Environment.”

By calendar year 2000, many site activities associated with the remediation of the MMTS were either drawing to a close, or had already been completed. Operation of the Wastewater Treatment Plant (WWTP), which treated contaminated surface water from the former Monticello millsite, ceased during 1999. The WWTP was dismantled and removed from the millsite location in May 1999. Construction of the repository and cover installation were completed in 1999. All contaminated materials remediated from the former millsite and associated properties were encapsulated in the repository, which was officially closed in October 1999. Many environmental monitoring activities (i.e., air particulate, radon/gamma, meteorology, waste water discharges from the WWTP to Montezuma Creek, etc.) associated with remediation of the millsite were subsequently terminated upon completion of DOE remedial activities at the MMTS.

Noteworthy events and accomplishments during 2000 included the transfer of ownership of the former millsite property from DOE to the City of Monticello; DOE oversight of the reconstruction and reclamation of the millsite by the City of Monticello; completion of grass seeding of the repository cover; preparation of operating plans and procedures in preparation to transfer the repository and several associated peripheral properties to the DOE Long-Term Surveillance and Maintenance (LTSM) program; the continued removal and decommissioning of various support facilities no longer needed; and continued monitoring of ground and surface water.

The repository is located 1 mile south of the Monticello millsite and contains tailings and other byproduct materials as well as hazardous substances and wastes from the remediation of contaminated properties. Construction of the repository and installation of the liner system was completed in November 1996. Placement of mill tailings into the repository began in June of 1997.

The repository was officially closed on October 6, 1999. At the time of closure, the volume of tailings placed into the Monticello disposal site totaled approximately 2,545,000 cubic yards (3,666,000 dry tons), and the total activity of the tailings was calculated to be 2,780 curies of radon-226.

During periods of active remediation, DOE implemented radiological and nonradiological environmental monitoring programs at the MMTS which included monitoring of atmospheric radon, air particulate matter, and direct gamma radiation. These programs were discontinued in 2000 after the 1999 monitoring results indicated that samples from all locations were below applicable U.S. Environmental Protection Agency (EPA) and DOE standards. Historical radiological monitoring data show a direct correlation between airborne concentrations/dose to the level of construction activity and disturbance of contaminated materials. Since there was no such disturbance of radiological materials during 2000, a radiological monitoring program was not warranted.

Surface water sampling results for contaminants other than selenium indicate that water quality in Montezuma Creek stabilized in 2000. Selenium has shown a trend of increasing concentrations in surface water in the last 2 years. There were no State of Utah standards exceeded in samples collected from Montezuma Creek on the millsite. Downstream of the millsite, selenium and total dissolved solids (TDS) standards were exceeded at all Montezuma Creek locations. Gross alpha results, excluding the contribution from radon and uranium, do not exceed State of Utah standards.

There were no Federal or State of Utah groundwater standards exceeded in samples collected from upgradient wells. Samples collected from one or more alluvial wells on and downgradient of the millsite exceeded the standards for molybdenum, selenium, and uranium. Downgradient of the millsite, standards for molybdenum, nitrate as nitrogen, pH, selenium, and uranium were exceeded. With the exception of well 95–06, results of samples collected from downgradient Burro Canyon wells were below applicable standards. The Federal standard for uranium-234 + uranium-238 was exceeded in samples collected from well 95–06, which is consistent with historical results.

Analytical results from samples collected from the permeable reactive treatment (PeRT) wall performance wells indicate that the PeRT wall is effectively treating the contaminated groundwater.

During 2000, in keeping with the intent of applicable DOE orders and all applicable or relevant and appropriate Federal and State environmental rules and regulations, DOE continued to monitor environmental media (as appropriate) and to work towards completion of the various environmental restoration programs at the MMTS. Monitoring of ground and surface water will continue under Operable Unit (OU) III of the MMTS to support ongoing remedy selection studies which will eventually be described in a Record for Decision for the remediation of contaminated groundwater at the MMTS. All other monitoring of environmental media at the MMTS is no longer required, and therefore; has been discontinued. With the exception of OU III, all other remediation activities have been completed at the MMTS. Consequently, this is the last annual SER to be prepared for the MMTS. Reporting of future OU III ground and surface water monitoring results may be obtained by contacting the DOE–GJO.

1.0 Introduction

Various environmental media (i.e., surface and groundwater, soils) were contaminated as a result of the uranium/vanadium processing/milling activities which occurred at the former Monticello millsite during the 1950's and 1960's. The regulatory basis for conducting environmental restoration activities at the MMTS in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), is described in the *Monticello Mill Tailings Site, Declaration for the Record of Decision and Record of Decision Summary* (ROD) (DOE 1990).

Remediation of the MMTS has been divided into three OUs (Figure 1). OU I consists of the excavation of mill tailings and other hazardous substances from the former millsite area and their containment in the permanent repository (located on the South Site). OU II consists of the remediation of radioactively contaminated soils, by-product materials, and hazardous substances from private and DOE-owned properties peripheral to the millsite. Remedial action for OU III addresses contaminated groundwater and surface water on and downgradient of the millsite and contaminated soil and sediment deposited downstream of the millsite. Specific site features discussed in this SER (e.g. the former millsite, repository, Pond 4, etc.) are depicted in Figure 2.

The MMTS, located in San Juan County, Utah, comprises several tracts of land, including the Monticello millsite, the former U.S. Bureau of Land Management (BLM) compound, the South Site, and 29 peripheral properties surrounding the millsite. DOE owns the South Site but has transferred ownership of the former millsite and peripheral properties to the City of Monticello. Other entities or individuals own the remaining peripheral properties.

Consistent with its commitment to public involvement, DOE maintained an active presence in the community during the remediation of the millsite. DOE established a Site Specific Advisory Board (SSAB), an independent forum designed to facilitate direct contact among the public and State and Federal agencies and to develop and communicate citizen recommendations. A toll-free hot-line (1-800-269-7145), news releases, advertisements, and updated fact sheets were other means used by DOE to keep the public informed as to the progress of the project and to provide an opportunity for public comment and input. With the conclusion of remedial activities associated with the MMTS, the SSAB was disbanded on October 20, 1999; however, local residents and the general public may still contact DOE via the toll-free phone number.

This annual SER presents an information update for environmental activities conducted at the MMTS during calendar year 2000. Significant milestones attained in 2000 are also summarized. Environmental monitoring data for calendar year 2000 are presented in the appendix.

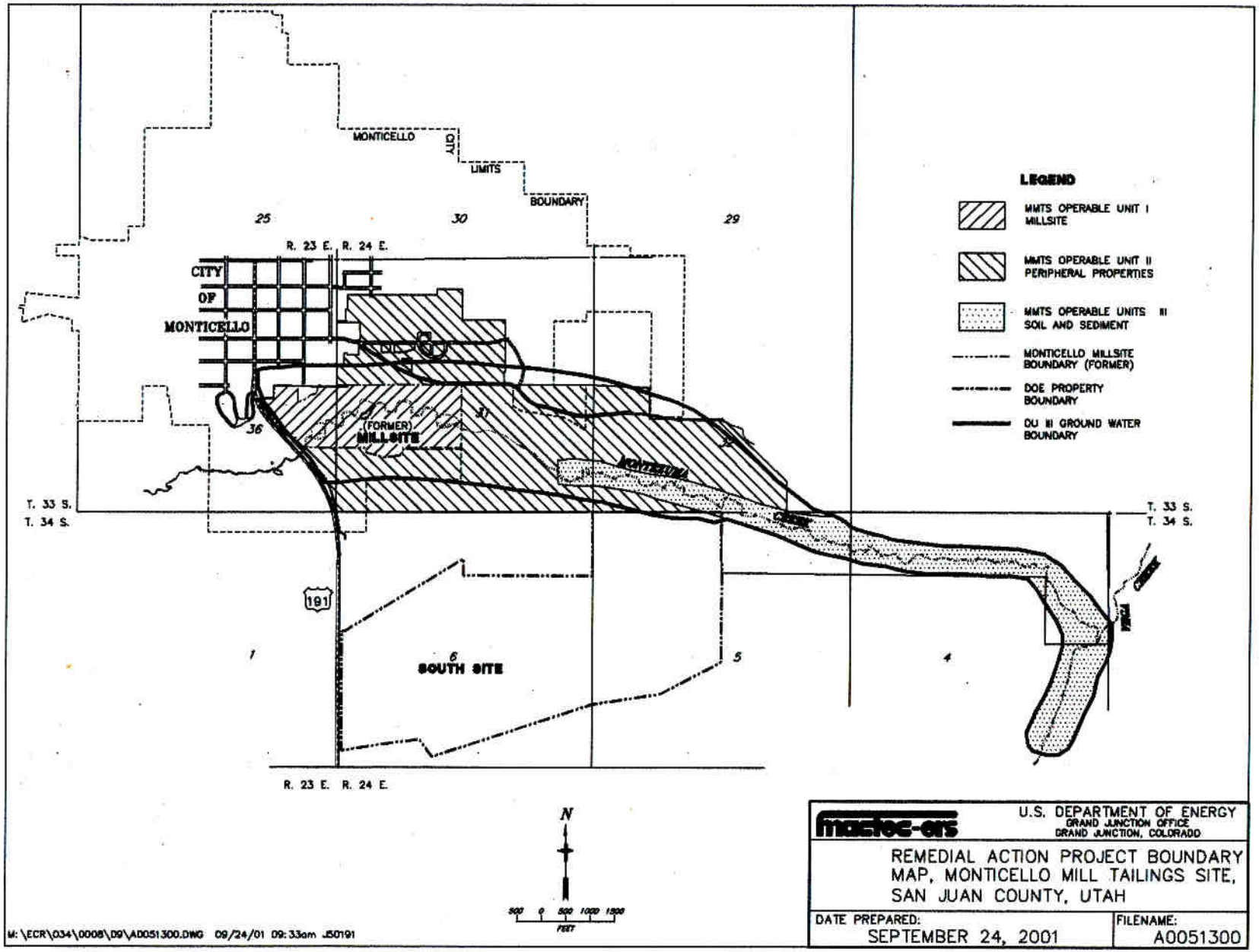

Figure 1. Remedial Action Project Boundary Map, Monticello Mill Tailings Site, San Juan County, Utah

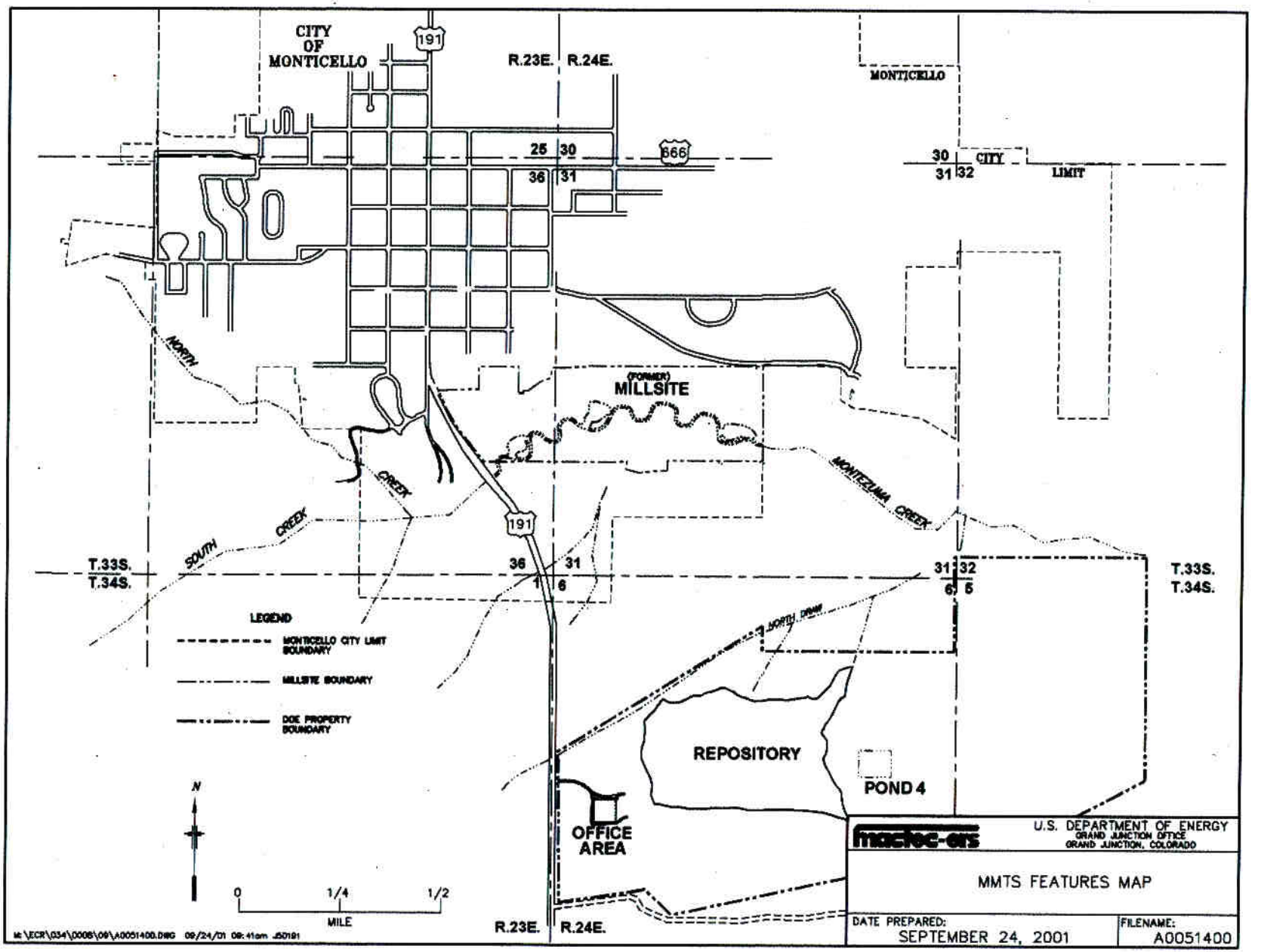

Figure 2. MMTS Features Map

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2.0 Compliance Summary

2.1 Compliance Status

Monitoring and documenting compliance with applicable environmental statutes and Executive/DOE Orders has been a major focus of previous annual SER reports. However, due to the declining scope and decreased activity at the MMTS, the scope of applicable or relevant and appropriate regulations has likewise decreased. This section is therefore, devoted to documenting only those regulations, statutes, etc., which continue to be applicable to the current level of activity. The compliance status for the major environmental statutes and Executive/DOE Orders applicable to the MMTS during calendar year 2000 is discussed in this section.

2.1.1 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

Pursuant to Section 120 of CERCLA, a Federal Facility Agreement (FFA) among DOE, EPA, and the State of Utah, Department of Environmental Quality (UDEQ) became effective December 1988. The FFA establishes performance measures for completing response actions at the MMTS. These performance measures, or milestones, are enforceable by the FFA. The *Monticello Site Management Plan* (DOE 2001a) establishes the overall plan, timetables, deadlines, and schedules for the performance and documentation of discrete tasks and response actions at the MMTS. Table 1 summarizes the 2000 MMTS enforceable milestones. DOE activities conducted at the MMTS in 2000 were compliant with all applicable CERCLA regulations and requirements.

Table 1. Compliance with CERCLA Enforceable Milestones for 2000

Milestone	Completion Date
OU I – Repository Construction Completed	September 30, 2000 (completed May 19, 2000)
OUI – Millsite Restoration – Submit Pre-Final Design to EPA/Utah (Primary Document)	November 30, 1999[a] (completed July 18, 2000)
OUI – Millsite Restoration – Notice of Award	May 31, 2000[a] (completed August 28, 2000)
OU II – Draft-Final Remedial Action Report for Non-Groundwater Peripheral Properties	October 30, 2000 (completed September 28, 2000)
OU III – Final Interim Remedial Action (IRA) Work Plan	October 30, 2000 (completed October 27, 2000)

[a] Date missed. Schedule revised to reflect Cooperative Agreement with the City of Monticello. No enforcement action taken by EPA/UDEQ. Revised date is shown in parenthesis.

DOE worked with the City of Monticello to transfer the Monticello Millsite and several adjacent peripheral properties to the City for beneficial public use. These lands are located immediately south of the city limits. CERCLA Section 120(h)(3)(c)(i)-(iv) allows transfer of federal property to an entity other than another federal agency prior to completion of the selected response action on the property. EPA has developed guidance entitled, *EPA Guidance on the Transfer of Federal Property by Deed Before All Necessary Remedial Action Has Been Taken Pursuant to CERCLA Section 120(h)(3)*, that assists EPA in determining if a site is suitable for early transfer.

Early transfer means transferring ownership of the property prior to completing the selected response action.

The above referenced guidance requires that a "Covenant Deferral Request" (CDR) be submitted to the appropriate agencies for concurrence that the property is suitable for early transfer. During 1999, DOE worked closely with EPA and UDEQ preparing this request. The request was submitted to EPA and UDEQ in February 2000 and subsequently approved by the Governor of Utah.

In October 1999, a cooperative agreement between the City of Monticello and DOE was signed in which DOE agrees to compensate the City for restoration of the millsite in-lieu of preparing a design for, and performing the millsite restoration, subject to certain requirements mandated by EPA and UDEQ. The *Final Covenant Deferral Request for Transfer of Federal Property in Monticello, Utah* (DOE 2000a), provides the regulatory basis for, and outlines the terms and conditions of, transferring lands associated with the former millsite and several adjacent millsite areas (i.e., peripheral properties) to the City of Monticello. Ownership of the millsite and the peripheral properties identified in the CDR (DOE 2000a) were effectively transferred from DOE to the City of Monticello on June 28, 2000. In total, 382 acres of land were transferred to the City of Monticello. With DOE oversight, the City of Monticello is responsible for the restoration of the former millsite and the Montezuma Creek corridor in accordance with State of Utah and EPA-approved engineering designs. Millsite restoration commenced August 30, 2000, and was completed in July 2001. The CDR specifies certain land use restrictions for these parcels. The CDR states that the use of these lands shall be limited to public recreational use in perpetuity; habitable structures cannot be constructed on the property; and wells cannot be constructed into the shallow alluvial aquifer. The recreational use selected for the property by the City of Monticello consists of an open park with hiking and biking trails and picnic areas.

Although the surface cleanup has removed contaminated soils from these properties, groundwater contamination remains throughout the former millsite area, and some contaminated soils remain (subsurface) at several of the peripheral properties (i.e., the Supplemental Standards properties). DOE has conducted risk assessment studies on these parcels and has determined that they are suitable for recreational-types of land uses; however, DOE has also chosen to implement various institutional controls to ensure that any residual contaminated media do not impact human health. Specifically, deed restrictions specify that camping, construction of habitable structures, and use of the alluvial aquifer for domestic purposes are expressly prohibited.

2.1.2 Superfund Amendments and Reauthorization Act, Title III (SARA Title III)

The Emergency Planning and Community Right-to-Know Act (EPCRA) (also known as SARA Title III) requires the owner or operator of a facility to notify local and state authorities when extremely hazardous substances or hazardous chemicals (as identified at 40 Code of Federal Regulations [CFR] 355.20) are present at their facility in amounts that exceed regulatory thresholds.

Previously at the MMTS, DOE has stored and used ECPRA-regulated chemicals in quantities exceeding the threshold planning quantities as identified at 40 CFR 370.20(b)(2). Typically, these materials consisted of various chemicals (e.g., sulfuric acid, barium chloride, iron powder, etc.) that were used during wastewater treatment activities, and were stored at the WWTP.

Additionally, a large quantity of diesel fuel was normally kept on site for refueling various pieces of heavy equipment that were used during the remediation of the millsite and the construction of the repository. In compliance with EPCRA, *Utah Tier Two - Emergency and Hazardous Chemical Inventory Reports* were routinely prepared and submitted for regulated hazardous chemicals stored and used at the MMTS. However, during calendar year 2000, DOE no longer conducted activities (i.e., operation of the WWTP and use of heavy construction equipment), which required the storage or use of chemicals and/or fuel in quantities that were subject to EPCRA reporting requirements. Therefore hazardous chemical inventory reports are no longer required for DOE's activities at the MMTS, and no further reporting of such chemicals to State and local authorities is anticipated.

The status of additional SARA Title III requirements include:

- Sections 301-303: Emergency Planning Notification - Required. Notification letter sent to the State Emergency Response Commission, the Local Emergency Planning Committee, and the local fire department on June 20, 1997. Additional notifications not required during 2000.

- Section 304: Emergency Notification - Not required during 2000.

- Sections 311-312: Material Safety Data Sheets/Chemical Inventory - Required. A *Utah Tier Two - Emergency and Hazardous Chemical Inventory Report* for reporting year 1999 was sent to the SERC, LEPC, and local fire department on January 27, 2000. Reporting for chemical storage/use during 2000 was not necessary.

- Section 313: Toxic Chemical Release Inventory Reporting - Not required during 2000.

2.1.3 Resource Conservation and Recovery Act (RCRA)

The Utah Hazardous Waste Management Rules (U.A.C. 1996) are considered applicable requirements when hazardous waste must be managed as part of the remedial action activities.

To address the State and Federal requirements under RCRA, DOE prepared the *Special Waste Management Plan for the Monticello Mill Tailings Site and Vicinity Properties* (SWMP) (DOE 1997). This document, which has been reviewed by EPA and UDEQ, presents DOE's approach for the management of wastes contaminated with hazardous substances other than uranium mill tailings encountered during remediation of the MMTS.

Hazardous wastes were not generated, stored, disposed, or shipped from the MMTS during calendar year 2000. With the completion of remedial activities at the MMTS, future generation of hazardous waste is not expected.

2.1.4 National Environmental Policy Act (NEPA)

All NEPA documentation necessary for DOE to accomplish the transfer of the former millsite property and adjacent peripheral properties to the City of Monticello was prepared during 1999. The requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.5 Uranium Mill Tailings Radiation Control Act

Under certain conditions identified at 40 CFR 192, supplemental standards may be applied that will allow contaminated soil to be left in place. In 1999, DOE requested EPA to allow application of supplemental standards for certain properties at Monticello. These properties, and the institutional controls that will be implemented to provide protection of human health and the environment, are described in the following documents:

- *MVP Application for Supplemental Standards—City of Monticello Streets and Utilities*, May 1999
- *MVP Application for Supplemental Standards—Highways 191 and 666 Rights-of-Way*, August 1999
- *Application for Supplemental Standards—Pinion/Juniper Properties*, May 1999
- *MMTS OU II Application for Supplemental Standards for Upper, Middle, and Lower Montezuma Creek—DOE ID Nos. MP-00951-VL, MP-00990-CS, MP-01084-VL, MG-01026-VL, MG-01027-VL, MG-01029-VL, MG-01030-VL, and MG-01033-VL*, October 1999

EPA approved all four applications for supplemental standards. Contamination will remain in place at the properties as described in the documents listed above.

2.1.6 Clean Air Act/National Emission Standards for Hazardous Air Pollutants

No changes in the compliance status for these statutes have occurred since preparation of the 1999 SER. The requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.7 Clean Water Act/National Pollutant Discharge Elimination System

In 1993, DOE submitted a Utah Pollutant Discharge Elimination System (UPDES) permit application to the UDEQ, Division of Water Quality, for installation of the WWTP. The WWTP was installed in 1995 east of the millsite.

The treatment plant treated contaminated water to reduce radionuclides, heavy metals, and suspended solids prior to discharge into Montezuma Creek. Specific effluent limitations from the discharge water were proposed by the State of Utah in 1993 and clarified in February 1994.

Compliance with the effluent limitations established for the WWTP were documented by conducting bi-monthly analysis of the effluent and reporting the individual sample results and monthly averages to UDEQ and EPA. The reports were forwarded to UDEQ and EPA during each month of operation. None of the WWTP effluent criteria were exceeded during 1999—the last year that the WWTP was in service.

As remediation of the millsite progressed and sources of contamination were removed, the need to collect and treat contaminated surface and runoff water decreased. As a result, operation of the WWTP ceased on May 12, 1999, and the plant and associated structures were dismantled and moved offsite by May 27, 1999. There were no wastewater treatment/discharge activities

occurring at the MMTS during calendar year 2000, therefore, the requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000. During 1999, remediation of the millsite progressed from the west to the east. After reviewing analytical data from sediment ponds located on the north and south sides of Montezuma Creek, permission was granted by EPA and UDEQ to discharge water directly to the creek from verified clean areas providing sediment controls were in place. Silt fencing was installed in accordance with the existing storm water pollution prevention plan, and water was allowed to discharge into Montezuma Creek. Silt fencing remained in use during reconstruction activities conducted in 2000.

Water impounded in the East Pond, a temporary pond created upon remediation of the East Pile, did not meet Utah State Water Quality Standards for gross alpha activity. Although the gross alpha activity level decreased, water from the East Pond continued to exceed the state water quality standards. Therefore, water from the East Pond was not discharged to Montezuma Creek in 1999. Discussions with UDEQ concerning the gross alpha standard were initiated in 1999. In a letter dated April 14, 2000, Mr. David Bird of UDEQ allowed the gross alpha particle contribution from radon and uranium to be excluded from the gross alpha measurement. When this adjustment is made, the state water quality standard for gross alpha is achieved for water impounded in the East Pond.

2.1.8 Safe Drinking Water Act

No changes in the compliance status for this statute have occurred since preparation of the 1999 SER. The requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.9 Toxic Substances Control Act (TSCA)

The production, use, distribution, and disposal of toxic chemicals is regulated by TSCA as found at 40 CFR 700 -789. The only substances regulated by TSCA that have been encountered at the MMTS are polychlorinated biphenyls (PCBs) and asbestos-containing materials (ACM). Details describing the remediation, management, and disposal of TSCA-related wastes during previous years may be found in previous annual SER reports**.**

Neither PCBs nor ACM wastes were encountered, stored, or shipped from the MMTS during 2000; therefore, the requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.10 Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Pesticides were not used on the MMTS in 2000; therefore, no changes in the compliance status for this statute have occurred since preparation of the 1999 SER. The requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.11 Endangered Species Act

No changes in the compliance status for this statute have occurred since preparation of the 1999 SER. The requirements of this statute were not applicable to the activities occurring at the MMTS during calendar year 2000.

2.1.12 National Historic Preservation Act/Archeological Resources Protection Act

In compliance with the State-approved cultural resources mitigation plan for the Monticello Remedial Action Program (MRAP), annual inspections of the significant prehistoric sites identified along Montezuma Creek and within the MRAP project boundaries were conducted until 1999.

Upon completion of nearby remedial/construction activities associated with OU III, a final inspection of all identified sites was conducted on March 31, 1999. A report entitled *Cultural Resource Monitor Report of Twelve Prehistoric Sheltered Camps and One Historic Site in Upper Montezuma Canyon of San Juan County, Utah* (DOE 1999a), documents that the sites remained undisturbed or in the same condition as they were originally recorded in 1988. Accordingly, a determination of "no effect" was recommended pursuant to Section 106 of the National Historic Preservation Act (36 CFR 800). All construction activities associated with the MMTS have been completed, and no further action is required pursuant to this statute.

2.1.13 Executive Order 11988, "Floodplain Management"

No changes relevant to Floodplain Management for Montezuma Creek occurred in calendar year 2000.

2.1.14 Executive Order 11990, "Protection of Wetlands"

DOE prepared the *Monticello Wetlands Master Plan* (Master Plan) (DOE 1996) to ensure that (1) CERCLA cleanup activities comply with applicable wetland regulations and guidance; (2) adverse effects to wetland areas are avoided where possible; (3) unavoidable adverse effects to wetland areas are minimized; and (4) adverse effects to wetland areas are mitigated. The Master Plan provides delineation results, mitigation measures, and monitoring plans for disturbed wetland areas at the MMTS.

Wetland areas at the MMTS total 11.5 hectares (28.5 acres). Approximately 4 hectares (9 acres) of wetland areas have been affected by remedial activities. Wetland types in Monticello include perennial streams, intermittent streams, emergent wetlands, and depression wetlands.

Wetland areas are restored in situ where possible; otherwise, they have been recreated at another location. Restoration efforts include restoration of size and function of wetland areas, minimization of erosion, prevention of weed encroachment, and use of ecotype plant species. The seed is collected locally when possible.

Recreated wetland areas are monitored for a minimum of 3 years or until success criteria are achieved. DOE submits a wetland monitoring report to EPA each year that summarizes the

results of wetland monitoring. During 2000, 19 wetland areas were monitored; the annual report was submitted to EPA and the State of Utah in January 2001 (DOE 2001b).

2.1.15 State of Utah Groundwater Quality Protection Regulations

No changes in the compliance status for this statute have occurred since preparation of the 1999 SER. The concentration of uranium-234 + 238 exceeded the Federal standard in the sample collected from downgradient Burro Canyon well 95–06 during 2000. However, the OU III Remedial Investigation (RI) (DOE 1998) has concluded that the Burro Canyon aquifer is not contaminated. The elevated concentrations observed in this well are attributed to natural fluctuations in groundwater quality. This well was installed in January 1996.

2.1.16 Title 73, "Water and Irrigation", Utah Code Annotated

During calendar year 1999, DOE submitted one State of Utah Dam Application (with design drawings) and one Application for Permanent Change of Water to the State of Utah, Department of Natural Resources, Division of Water Rights. The applications were required by the State, prior to DOE completing the restoration of a peripheral property adjacent to the millsite. The restoration of the property required that DOE construct a stock watering pond and make a permanent change to the landowner’s water right. The applications were submitted in November 1999 and approved by the State in May 2000.

2.2 Environmental Issues and Actions

As described in earlier sections of this report, all surface cleanup actions at the MMTS were completed in 1999. Additionally, all major environmental activities (e.g., environmental monitoring, waste management, remediation of contaminated materials, etc.) and activities associated with waste processing/storage facilities (e.g., the WWTP, the Interim Waste Management Area, construction of the repository, etc.) were likewise completed in 1999. Consequently, there were no environmental issues or actions of consequence to report for calendar year 2000 at the MMTS. All activities conducted at the MMTS were in compliance with all applicable or relevant and appropriate federal and state environmental rules and regulations. No penalties or citations stemming from violations of environmental requirements were issued to DOE as a result of its activities/operations at the MMTS during calendar year 2000. DOE's primary activities associated with the MMTS during 2000 included transferring the millsite and associated peripheral properties to the City of Monticello, providing construction and engineering oversight of the City of Monticello's efforts to reconstruct the former millsite area, and preparing various documents and procedures in preparation to transfer the repository and associated peripheral properties to DOE's Long Term Stewardship Program.

2.2.1 Completion of the Repository Construction Activities

After numerous environmental studies of various potential disposal locations, DOE reached a decision in December 1994 to construct the disposal cell (i.e., repository) on 80 acres of DOE-owned land south of the former millsite; the location was generically referred to as the "South Site" (see Figure 1). The favorable hydrogeologic setting of the South Site, as well as the design features of the repository, will ensure the long-term protection of human health and the environment. The repository design was finalized in August 1995, and the construction

subcontract was awarded in September 1995. The repository is designed to contain 2.6 million cubic yards of contaminated material. Repository construction was initiated in November 1995 and was completed in May 1997. Placement of tailings into the repository began in June 1997. At the time that the repository was permanently closed in 1999, the total volume of contaminated material placed in the repository was 2.545 million cubic yards.

Construction of the multi-layer cover that includes a radon barrier and vegetated cover began in 1999 prior to completion of tailings removal. As the repository was filled from west to east, the multi-layer cover was also constructed from west to east. The repository ceased accepting contaminated material in September 1999, and construction of the radon barrier and installation of the high density polyethylene (HDPE) liner over the entire repository was completed in October 1999. Construction of cover layers above the radon barrier continued throughout 1999. The cover was completed on February 23, 2000, with the exception of the vegetative cover, which would have to wait for spring weather conditions. Seeding of the repository cover, restoration of the haul road (from the repository to the former millsite area) and the associated wetland areas, were completed by July 2001.

2.2.2 Long Term Stewardship Activities

DOE has LTSM responsibilities for various properties that were part of the MMTS. Specifically, long-term stewardship activities will be conducted in perpetuity at the Monticello repository, the former millsite area, the Monticello Supplemental Standards properties, and at areas, which are part of the Monticello Surface and Groundwater Remedial Action Project (OU III). Because these sites were remediated under CERCLA, and because these sites cannot be released for unrestricted use, DOE is required by statute to implement institutional controls to ensure that residual contamination remains isolated from the public, and to ensure that the selected remedy is protective of human health and the environment. DOE-GJO's LTSM Program has been assigned responsibility for the long-term care and stewardship of these properties.

In conjunction with EPA and the State of Utah, DOE-GJO's LTSM Program has prepared various plans and procedures, which outline and prescribe activities required to provide long term stewardship at these locations. Specifically, these plans and procedures outline the requirements for conducting site inspections, environmental monitoring requirements, preparing CERCLA 5-year reviews, and the monitoring and enforcement of institutional controls.

As part of DOE's LTSM activities at the MMTS, a Temporary Storage Facility (TSF) was constructed during 1999 near the office complex. The TSF was constructed as a contingency measure for safe handling and control of radiologically contaminated material that may be encountered at supplemental standards properties in the Monticello vicinity.

Radiologically contaminated material may be temporarily stored in bins or drums until it is transferred to the Grand Junction disposal site (or other DOE-approved facility). Operation and management of the TSF is described in the *Long-Term Surveillance and Maintenance Operating Procedures for Monticello Supplemental Standards Properties* (DOE 2000b). During 2000, contaminated materials encountered during the routine repair and maintenance of various utilities and Monticello City streets were placed in storage at the TSF. These materials were kept in temporary storage at the TSF until the fall of 2000, when they were transported to the Grand Junction, Colorado, disposal site for disposal.

Results of the annual inspections conducted at these properties and the on-going monitoring of environmental media may be obtained in the future by contacting the DOE-GJO directly at their toll-free telephone number (1-800-269-7145), or by accessing the LTSM Program Web Site (http://www.doegjpo.com/programs/ltsm).

End of current text

3.0 Environmental Monitoring Summary

Previously, DOE has conducted atmospheric radon, air particulate (PM_{10}), direct gamma, and meteorological monitoring at the MMTS. With the completion of the surface clean up of the MMTS, there is no longer a need to monitor various environmental media. Therefore, radiological (i.e., atmospheric radon, direct gamma, etc.) and air monitoring (PM_{10}) were discontinued after 1999. Surface and groundwater monitoring, however; will continue under OU III of the MMTS to support ongoing remedy selection studies which will eventually be described in a ROD for the remediation of contaminated groundwater at the MMTS. Surface and groundwater monitoring data collected during 2000 are presented in this section.

3.1 Surface Water

Montezuma Creek is the primary surface water body in the MMTS area, flowing west to east through the millsite. Typical flow rates are on the order of 1 to 2 cubic feet per second. Flow is generally perennial; however, portions of the creek are seasonally dry some years. Montezuma Creek water is diverted about 1 mile upstream of the millsite for irrigation. Downstream of the millsite, creek water is used for crop irrigation and livestock watering. Other surface water bodies in the MMTS area include several artificial ponds and groundwater seeps.

The RI study commenced in 1992, and field work concluded at the end of 1996. The final RI report titled *Monticello Mill Tailings Site, Operable Unit III, Remedial Investigation* (DOE 1998) was issued in 1998. In response to the completion of the RI fieldwork, the surface-water-monitoring program at the MMTS was revised in 1997 to reflect a post RI annual monitoring phase. Since that time, the plan has been revised to incorporate monitoring requirements for the PeRT wall treatability study and input from DOE, EPA, and UDEQ. The plan specifies quarterly sampling in January, April, July, and October. The October sampling event is designed as an extensive sampling event because flows are typically the lowest and analyte concentrations the highest. The current version of the plan is called *Monticello Mill Tailings Site, Operable Unit III, Interim Remedial Action, Surface and Ground Water Monitoring Plan* (DOE 1999b).

The objectives of the surface water monitoring program are (1) to monitor for major changes in water quality entering the site, (2) to detect changes in water quality of Montezuma Creek in response to millsite remediation, and (3) to verify compliance with State surface-water quality standards. In accordance with the objectives stated above, surface water samples were collected from the locations listed in Table 2 and shown in Figures 3 and 4. Sampling locations included selected sites along an established network on Montezuma Creek upstream of the millsite, on the millsite, and downstream of the millsite.

Surface water samples collected during 2000 were submitted for laboratory analysis for the constituents listed in Table 2. Alkalinity, pH, electrical conductivity, and temperature were measured in the field at the time of sample collection. The analytical results are displayed in Table A–1 of Appendix A. All surface water samples were collected and analyzed according to standardized, approved methods described in the planning documents cited above. State of Utah water quality standards are compared to 2000 and historic sample results in Table 3.

Table 2. 2000 Surface Water Sampling and Analytical Design Schedule

Date	Location	Description	Sites Sampled	Analytes Measured
January 2000	Millsite	Montezuma Creek	SW99–01	As, Ca, Cl, F, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, V
	Downgradient	Montezuma Creek	SW92–06, SW99–04, Sorenson	
April 2000	Upgradient	Montezuma Creek	SW00–01	As, Ca, Cl, F, Fe, Gross a, Gross ß, HCO_3, K, Mg, Mn, Mo,($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, V
	Millsite	Montezuma Creek	SW00–02	
		Seep	4307, 5215	
	Downgradient	Montezuma Creek	SW00–03, SW00–04, Sorenson, SW92–08, SW94–01	
July 2000	Upgradient	Montezuma Creek	SW00–01	As, Br, Ca, Cl, F, Fe, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, V
	Millsite	Montezuma Creek	SW00–02	
		Seep	5215	
	Downgradient	Montezuma Creek	SW00–03, SW00–04, Sorenson	
October 2000	Upgradient	Montezuma Creek	SW92–03, SW00–01	As, Ca, Cl, F, Fe, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, V
	Millsite	Montezuma Creek	SW00–02	
		Seep	4307, 5215	
	Downgradient	Montezuma Creek	Sorenson, SW92–08, SW94–01, SW00–04	

Table 3. Comparison of State of Utah Water Quality Standards[a] with 2000 and Historical Maximum Concentrations in Montezuma Creek[b]

Constituent	State Standard	2000 Maximum [c]			Historical Maximum [c,d]		
		Upgradient	On Site	Downgradient	Upgradient	On-Site	Downgradient
			Anion				
Fluoride [e]	1.4-2.4 (mg/L)	0.202	0.178	0.283	0.289	0.354	0.334
Nitrate as Nitrogen [f]	10 (mg/L)	0.238	0.730	0.842	5.67	2.98	10
			General				
Total Dissolved Solids	1,200 (mg/L)	682	1,320	1,680	1,842	1,860	1,700
pH	6.5-9.0 (s.u.)	7.56-8.21	7.87-8.09	7.58-10.78	7.2-9.16	6.6-8.67	6.74-9.6
			Metal				
Arsenic	0.05 (mg/L)	0.00045	0.00024	0.0015	~0.0039	~0.0339	0.027
Iron	1.0 (mg/L)	0.0219	<0.0117	0.0165	2.85	1.34	4.45
Selenium	0.005 [g] (mg/L)	0.00075	0.0041	0.0097	0.0097	~0.012	0.042
			Radiological				
Gross Alpha [h]	15 (pCi/L)	<9.13	14.98	87.77	76	162	517
Gross Beta [i]	50 (pCi/L)	9.41	13.0	47.68	26.5	48	187
Radium-226+228	5 (pCi/L)	<0.86	<0.87	0.88	3.3	1.1	2.7

[a] State of Utah Water Quality Standards for the Montezuma Creek segment, Utah Administrative Code Rule R317-2. Not all state standards are listed in this table.
[b] A "---" indicates no data available; a "<" indicates that the maximum concentration was below the detection limit (number shown is detection limit); a "~" indicates an estimated value.
[c] The values are in units shown under the State Standard column.
[d] Based on maximum concentrations observed from 1984 through 1999.
[e] Allowable Maximum concentration varies according to the daily maximum mean air temperature.
[f] Nitrate (as N) was derived using the following conversion, Nitrate (as N) = $NO_3 \div 4.427$.
[g] Aquatic Wildlife Standard.
[h] Gross alpha results are not adjusted to exclude uranium.
[i] Gross beta is a pollution indicator.

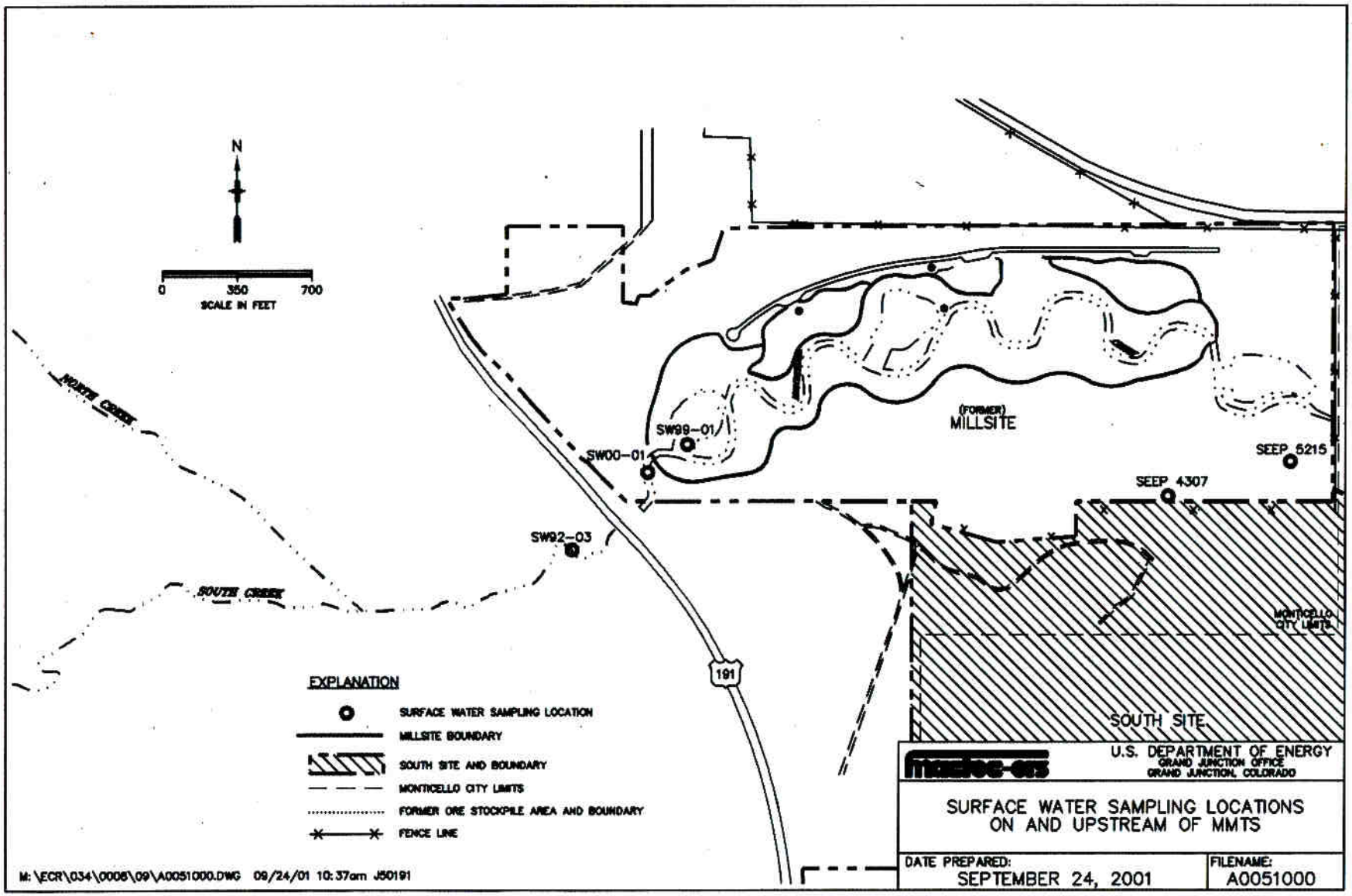

Figure 3. Surface Water Sampling Locations On and Upstream of MMTS

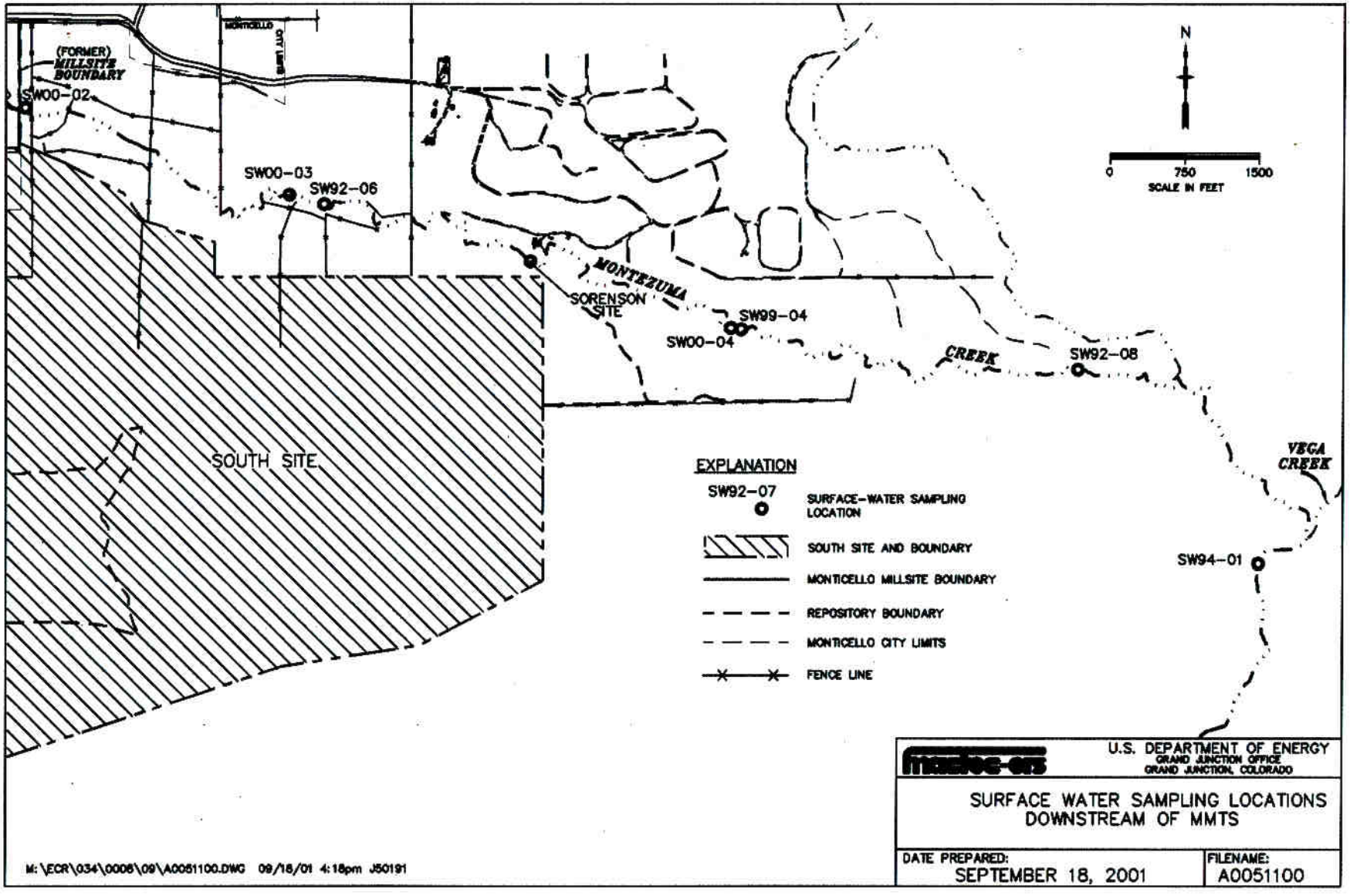

Figure 4. Surface Water Sampling Locations Downstream of MMTS

Water quality in Montezuma Creek just east of U.S. Highway 191 at location SW99-01 was comparable to backgroundwater quality measured at location SW92-03; analyte concentrations measured in the samples collected from SW99-01 were below State standards.

Water quality exiting the millsite is measured at SW00–02; all analyte concentrations at this location were below State standards.

Downstream of the millsite, the selenium and TDS standards were exceeded at all Montezuma Creek locations. Except for selenium, analyte concentrations in samples collected downstream of the millsite are typically lower than historical concentrations, which is attributed to remedial activities at the millsite and downstream along Montezuma Creek. Time-versus-concentration graphs for selected analytes from downstream sampling locations illustrate the improvement in water quality over time (Figures 5 through 7).

A summary and analysis of surface water data collected in 2000 is summarized in the *Monticello Mill Tailings, Operable Unit III, Interim Remedial Action Progress Report, July 1999–July 2000* (DOE 1999c), and in the *Monticello Mill Tailings, Operable Unit III, Interim Remedial Action Progress Report, July 2000–July 2001* (DOE 2001c). A complete description of the surface water, including detailed analysis of the nature and extent of surface water contamination, surface water flow, and groundwater and surface water interaction, is described in the *Monticello Mill Tailings Site, Operable Unit III, Remedial Investigation* (DOE 1998) report.

3.2 Groundwater

The RI study commenced in 1992, and field work concluded at the end of 1996. The final RI report DOE 1998 was issued in 1998. In response to the completion of the RI fieldwork, the groundwater monitoring program at the MMTS was revised in 1997 to reflect a post RI annual monitoring phase. Since that time the plan has been revised to incorporate monitoring requirements for the PeRT wall and input from DOE, EPA, and UDEQ. The plan specifies quarterly sampling in January, April, July, and October. The October sampling event is designed as an extensive sampling event because flows are typically the lowest and analyte concentrations the highest. The current version of the plan was called *Interim Remedial Action, Surface and Ground Water Monitoring Plan* (DOE 1999b).

The objectives of the revised monitoring program are (1) to monitor the contaminant plume within the alluvial aquifer; (2) to determine if water quality within the Burro Canyon aquifer is being degraded by contaminated alluvial groundwater; (3) to verify compliance with Federal and State groundwater quality standards; and (4) to determine the effectiveness of the PeRT wall in treating contaminated alluvial groundwater.

Routine quarterly groundwater sampling in 2000 was conducted in January, April, July/August, and October/November according to the schedule presented in Table 4, which lists the wells that were sampled and analytes measured for each sampling event. Sampling was conducted using standardized, approved methods specified in the planning documents cited above. Field measurements made included alkalinity, dissolved oxygen, electrical conductivity, oxidation-reduction potential, pH, temperature, and turbidity. Figure 8 shows the sampling locations of on-site and upgradient wells, Figure 9 shows the sampling locations of downgradient and cross-gradient wells, and Figure 10 shows the sampling locations of PeRT wall wells.

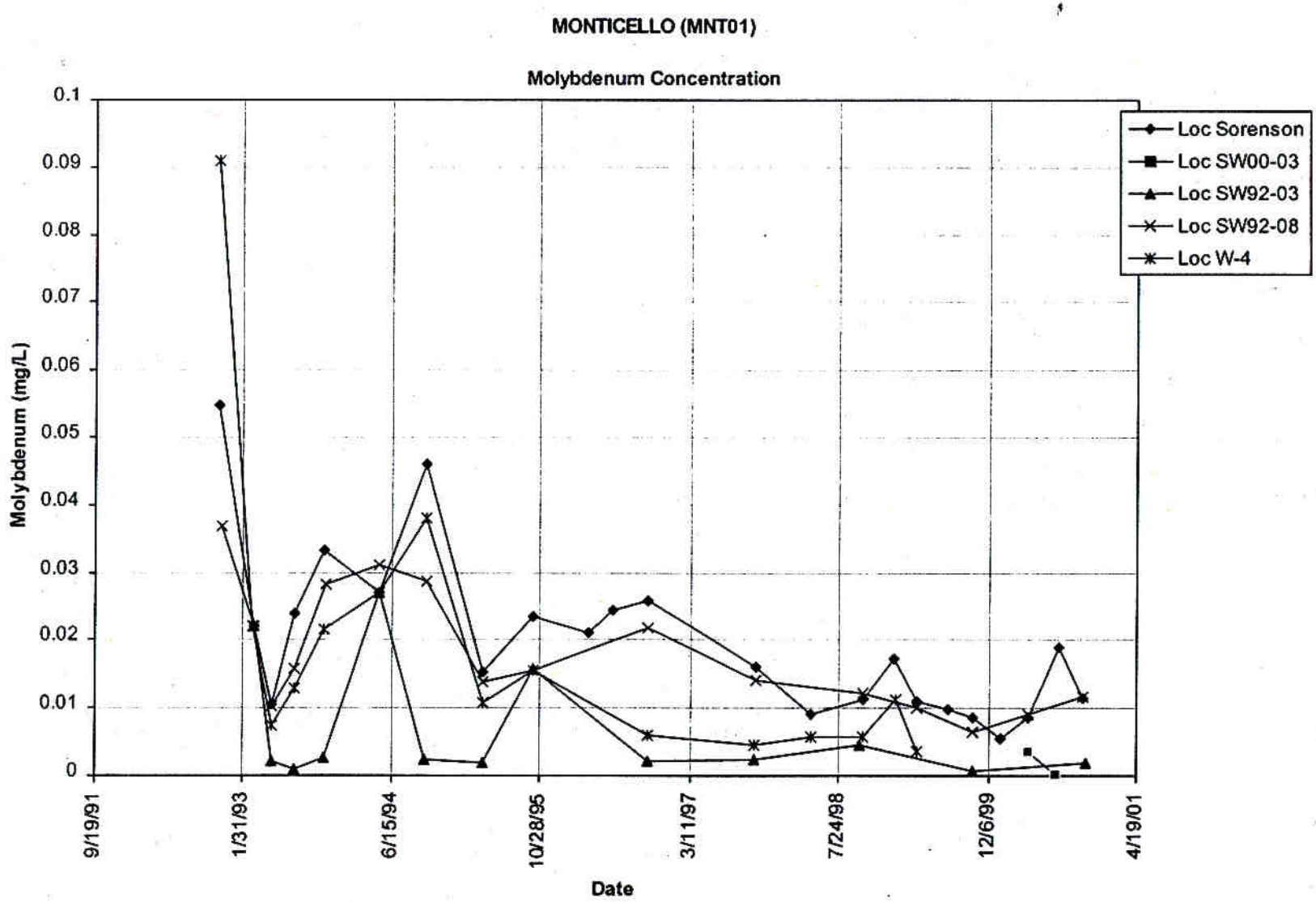

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Figure 5. Molybdenum Concentration at Selected Locations on Montezuma Creek

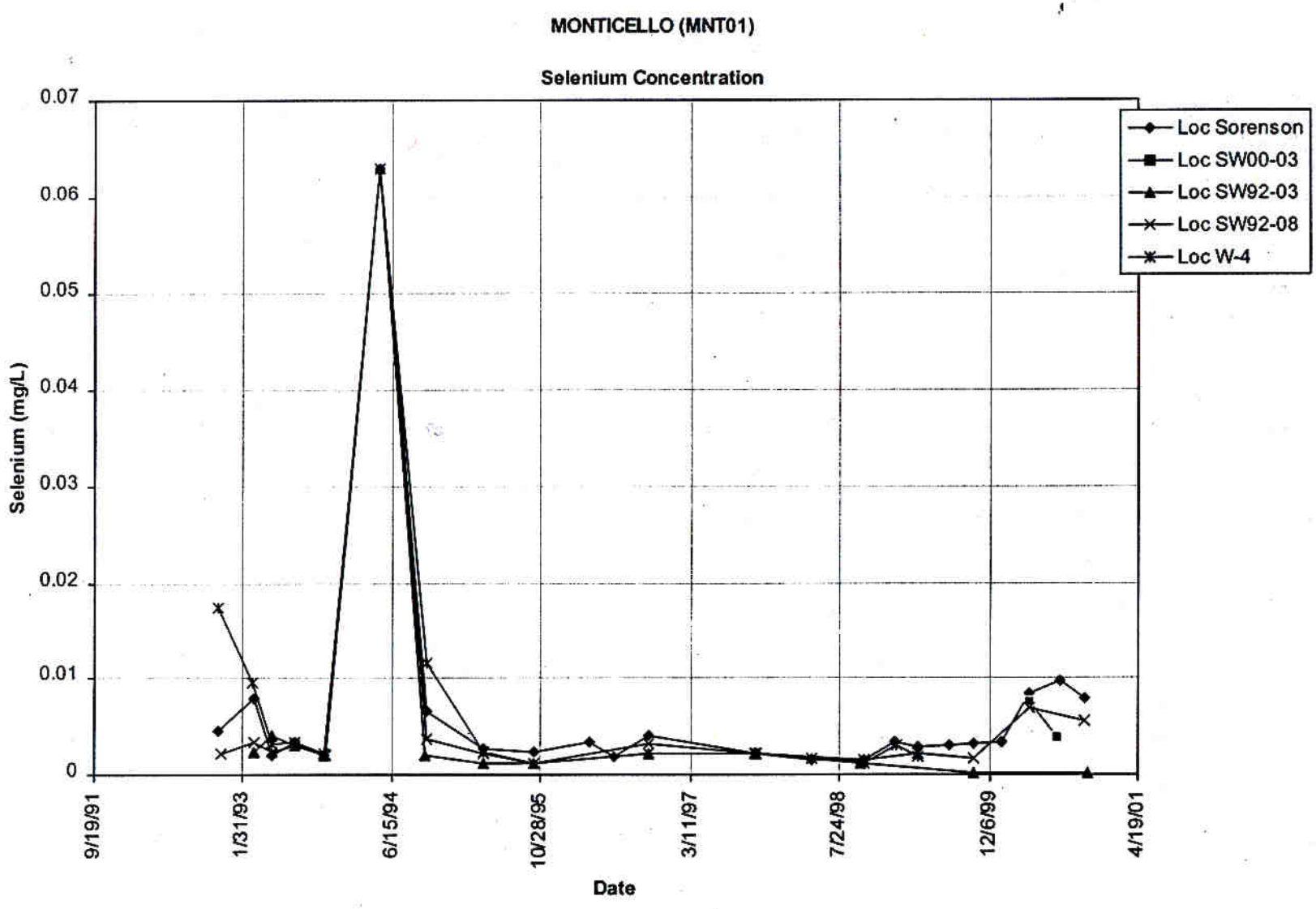

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Figure 6. Selenium Concentrations at Selected Locations on Montezuma Creek

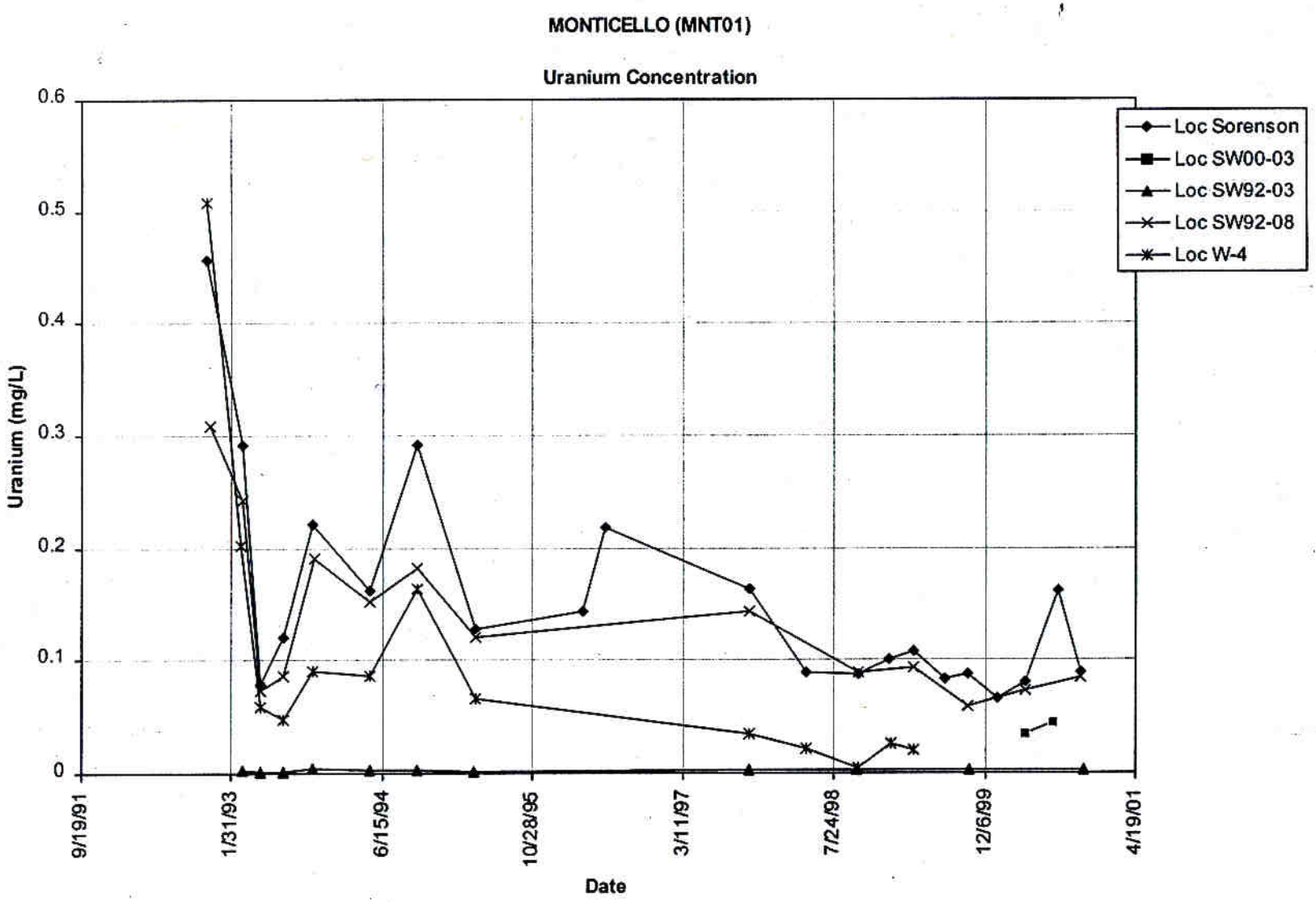

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Figure 7. Uranium Concentrations at Selected Locations on Montezuma Creek

Table 4. 2000 Groundwater Sampling and Analytical Design Schedule

Date	Location	Formation	Wells Sampled	Analytes Measured
January 2000	Millsite	Alluvial	GB1126T	As, Ca, Cl, F, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS,Th-230, U, V
	Downgradient	Alluvial	82–08, 88–85, 92–07, 92–08, 92–11, P92–04, P92–05, P92–06, P92–07, P92–09, T99–01, T99–03, T99–11	
		Alluvial PeRT Wall	R1–M1, R1–M2, R1–M3, R1–M4, R1–M5, R10–M1, R2–M1, R2–M10, R2–M2, R2–M3, R2–M4, R2–M5, R2–M6, R2–M7, R2–M8, R2–M9, R3–M1, R3–M2, R3–M3, R3–M4, R4–M1, R4–M2, R4–M3, R4–M4, R4–M5, R4–M6, R4–M7, R4–M8, R5–M1, R5–M10, R5–M2, R5–M3, R5–M4, R5–M5, R5–M6, R5–M7, R5–M8, R5–M9, R6–M2, R6–M3, R6–M4, R6–M5, R9–M1, R11–M1, T1–D, T1–S, T2–D, T2–S, T3–D, T3–S, T4–D, T4–S, T5–D, T5–S, T6–D, T6–S, T7–D	
April 2000	Millsite	Alluvial	GB1126T, GB3127T	As, HCO_3 , Ca, Cl, F, Fe, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, U-234, U-235, U-238, V
	Downgradient	Alluvial	82–07, 82–08, 88–85, 92–07, 92–08, 92–09, 92–11, 95–01, 95–03, P92–02, P92–03, P92–04, P92–05, P92–06, P92–07, P92–09, PW–17, T99–01, T99–03, T99–05, T99–11	
		Alluvial PeRT Wall	R1–M1, R1–M2, R1–M3, R1–M4, R1–M5, R10–M1, R2–M1, R2–M10, R2–M2, R2–M3, R2–M4, R2–M5, R2–M6, R2–M7, R2–M8, R2–M9, R3–M1, R3–M2, R3–M3, R3–M4, R4–M1, R4–M2, R4–M3, R4–M4, R4–M5, R4–M6, R4–M7, R4–M8, R5–M1, R5–M10, R5–M2, R5–M3, R5–M4, R5–M5, R5–M6, R5–M7, R5–M8, R5–M9, R6–M1, R6–M2, R6–M3, R6–M4, R6–M5, R7–M1, R7–M2, R9–M1, R11–M1, T1–D, T1–S, T2–D, T2–S, T3–D, T3–S, T4–D, T4–S, T5–D, T5–S, T6–D, T6–S, T7–D,	
		Dakota Sandstone	92–12	
		Burro Canyon	83–70, 92–10, 95–06	
	Crossgradient	Mancos	31SW93–197–5	

Table 4 (continued). 2000 Groundwater Sampling and Analytical Design Schedule

Date	Location	Formation	Wells Sampled	Analytes Measured
July/ August 2000	Upgradient	Alluvial	M00–01, M00–02	As, Br, Ca, Cl, Co, Cu, F, Fe, Gross a, Gross ß, K, Mg, Mn, Mo, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS,Th-230, U, V, Zn
	Millsite	Alluvial	MW00–04, T00–01, T00–17, T00–18, T00–19	
	Downgradient	Alluvial	82–07, 82–08, 88–85, 92–07, 92–08, 92–11, MW00–06, MW00–07, P92–04, P92–05, P92–06, P92–07, P92–09, PW–17, T99–01, T99–11	
		Alluvial PeRT Wall	R1–M1, R1–M2, R1–M3, R1–M4, R1–M5, R10–M1, R2–M1, R2–M10, R2–M2, R2–M3, R2–M4, R2–M5, R2–M6, R2–M7, R2–M8, R2–M9, R3–M1, R3–M2, R3–M3, R3–M4, R4–M1, R4–M2, R4–M3, R4–M4, R4–M5, R4–M6, R4–M7, R4–M8, R5–M1, R5–M10, R5–M2, R5–M3, R5–M4, R5–M5, R5–M6, R5–M7, R5–M8, R5–M9, R6–M2, R6–M3, R6–M4, R6–M5, R11–M1, T1–D, T1–S, T2–D, T2–S, T3–D, T3–S, T4–D, T4–S, T5–D, T5–S, T6–D, T6–S, T7–D,	
	Crossgradient	Burro Canyon	AEC–6, 31SW93–197–2	
		Dakota Sandstone	31SW93–197–3	
		Mancos	31SW93–197–4, 31SW93–197–5	
October/ November 2000	Upgradient	Alluvial	92–05, M00–01, M00–02	As, Ca, Cl, F, Fe, Gross a, Gross ß, K, Mg, Mn, Mo, NO_3, ($N0_2$ + NO_3)-N, Na, Pb-210, Ra-226, Rn-222, Se, SO_4, TDS, Th-230, U, U-234, U-238, V
		Burro Canyon	92–06	
		Dakota Sandstone	92–13	
	Millsite	Alluvial	82–20, M00–04, T00–01, T00–18	
		Burro Canyon	93–01	
	Downgradient	Alluvial	82–08, 88–85, 92–07, 92–08, 92–09, 92–11, 95–01, 95–03, MW00–06, P92–02, P92–03, P92–04, P92–06, P92–09, PW–17, T99–05	
		Alluvial Pert Wall	R1–M1, R1–M2, R1–M3, R1–M4, R1–M5, R1–M6, R10–M1, R2–M1, R2–M10, R2–M2, R2–M3, R2–M4, R2–M5, R2–M6, R2–M7, R2–M8, R2–M9, R3–M1, R3–M2, R3–M3, R3–M4, R4–M1, R4–M2, R4–M3, R4–M4, R4–M5, R4–M6, R4–M7, R4–M8, R5–M1, R5–M10, R5–M2, R5–M3, R5–M4, R5–M5, R5–M6, R5–M7, R5–M8, R5–M9, R6–M1, R6–M2, R6–M3, R6–M4, R6–M5, R6–M6, R9–M1, R11–M1, T1–D, T1–S, T2–D, T2–S, T3–D, T3–S, T4–D, T4–S, T5–D, T5–S, T6–D, T6–S, T7–D	
		Burro Canyon	83–70, 92–10, 95–02, 95–04, 95–06, 95–08	
		Dakota Sandstone	92–12	
	Crossgradient	Burro Canyon	31NE93–205, 31SW93–197–2	
		Dakota Sandstone	95–07, 31SW93–197–3	
		Mancos	31SW93–197–4, 31SW93–197–5	

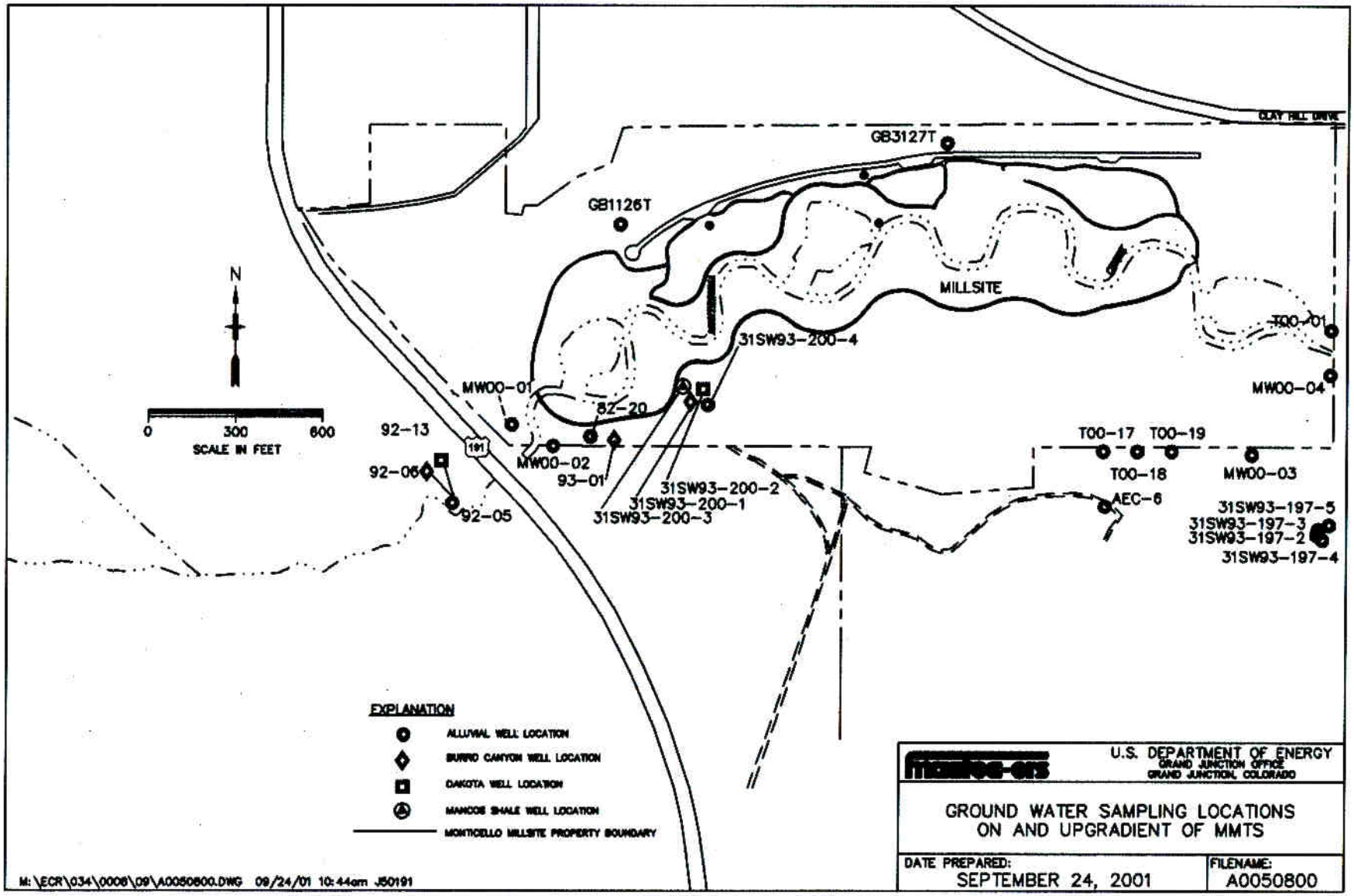

Figure 8. Groundwater Sampling Locations and Analytes That Exceed Standards On and Upgradient of MMTS

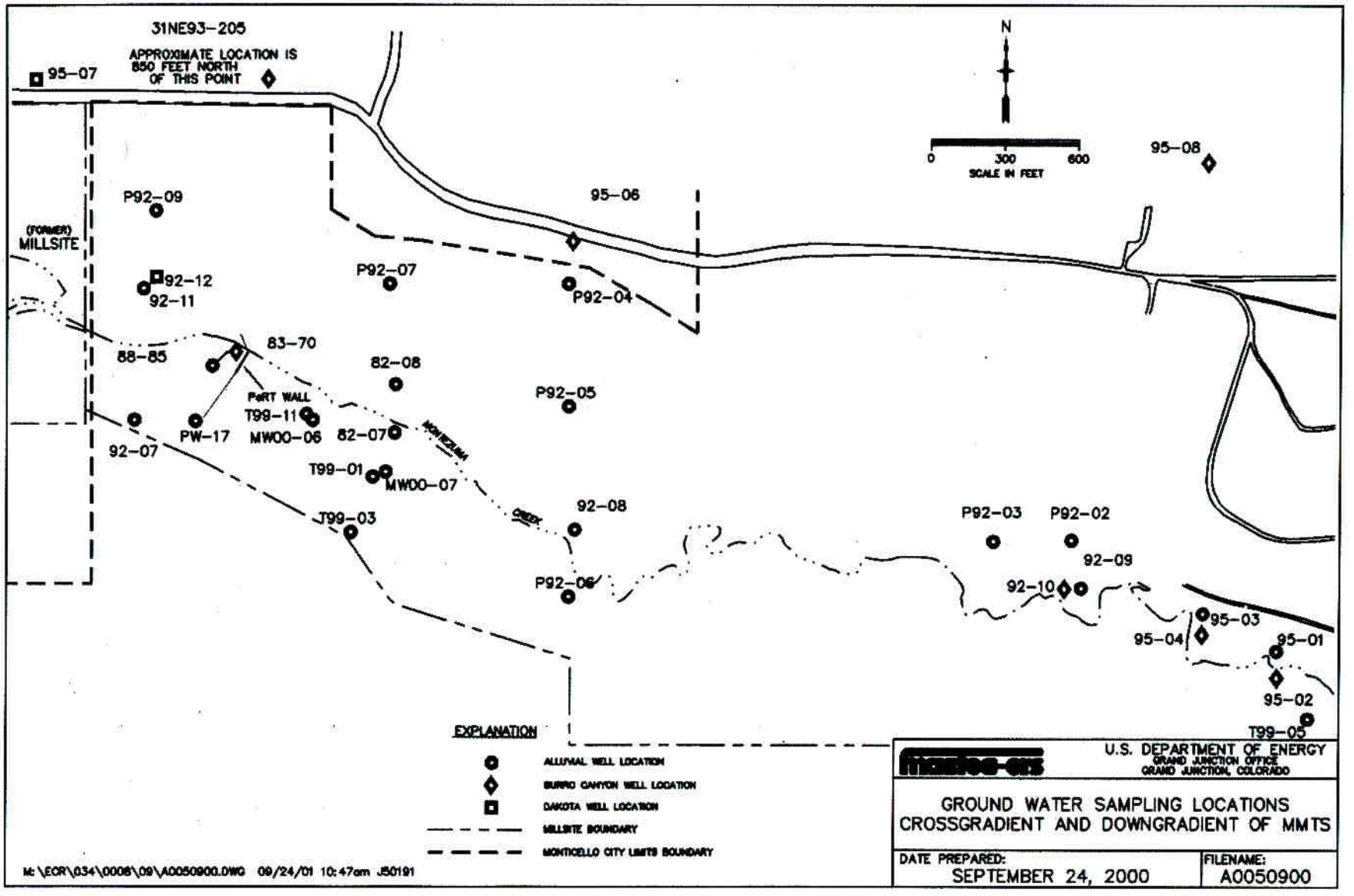

Figure 9. Groundwater Sampling Locations and Analytes That Exceed Standards Crossgradient and Downgradient of MMTS

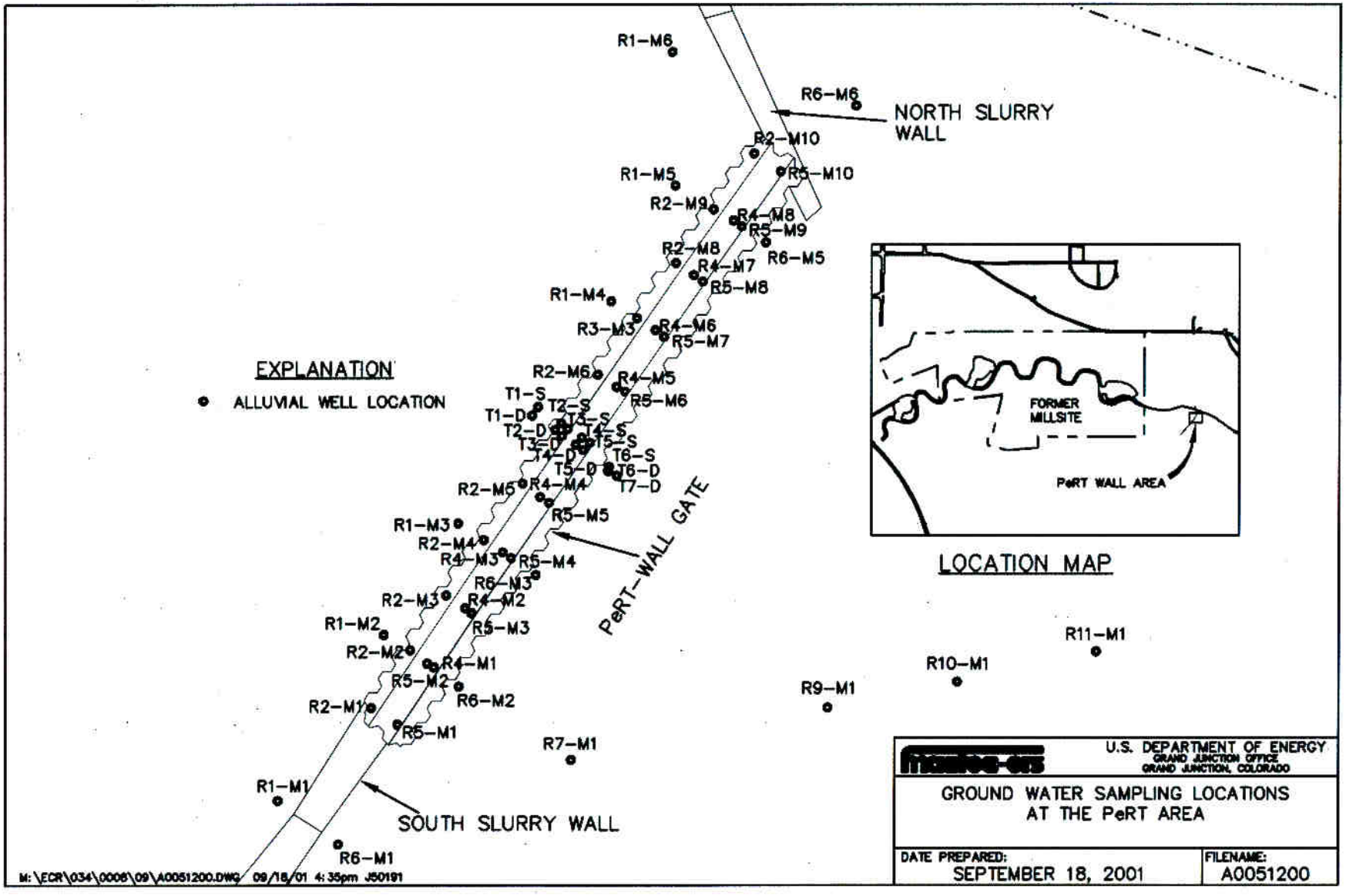

Figure 10. Groundwater Sampling Locations At The PeRT Area

Analytical results of all 2000 well samples are included in the Appendix A, Table A–2; Quality Assurance (QA) / Quality Control (QC) analytical data for samples collected at or near the MMTS during 2000 are included in Appendix A, Table A–3.

Sample results from upgradient alluvial, Dakota Sandstone, and Burro Canyon wells were below Federal and State standards. Analyte concentrations measured in upgradient alluvial well 92–05 are consistent with historical results as illustrated in Figures 11 through 15. Maximum concentrations of analytes measured in alluvial wells are listed and compared to Federal and/or State standards and historical maximums in Table 5.

During 2000, temporary wells were installed along the western (T00–08 to T00–15), eastern (T00–01 to T00–07), and southeastern (T00–17 to T00–23) boundaries of the millsite. Samples from one or more of these wells exceeded groundwater standards for nitrate as nitrogen, molybdenum, selenium, uranium and gross alpha.

Groundwater contamination in the alluvial aquifer downgradient of the millsite has been documented and verified from historical investigations and monitoring programs. In 2000, the standards for molybdenum, gross alpha, nitrate as N, pH, selenium, and uranium-234 + uranium-238 were exceeded in samples from one or more downgradient alluvial wells. Time versus concentrations graphs (Figures 11 through 15) display the elevated contaminant concentrations in downgradient alluvial wells over time.

Uranium-234 + 238 concentrations from downgradient Burro Canyon well 95–06 (73.2 picocuries per liter [pCi/L]) exceeded the standard (30 pCi/L). However, as explained in the *Monticello Mill Tailings Site, Operable Unit III, Remedial Investigation* (DOE 1998) report, elevated concentrations of isotopic uranium observed in the Burro Canyon aquifer at this location have been attributed to naturally occurring uranium, rather than contamination associated with uranium mill tailings. All other analyte concentrations measured in downgradient Burro Canyon wells were below applicable standards. Results from downgradient Dakota Sandstone well 92–12 were also below applicable standards.

A PeRT wall was installed in 2000 east of the millsite as a potential treatment technology for contaminated alluvial groundwater. The PeRT wall consists of impermeable sections of wall on the outside that funnel groundwater through the permeable reactive gate at the center of the wall. The permeable reactive gate is composed of a zero valent iron (reactive media) and gravel.

The network of approximately 61 wells installed at the PeRT wall was monitored in January, April, August, and October of 2000. Results from the PeRT wall monitoring indicate that the reactive media is effective in reducing the concentrations of groundwater contaminants. A summary and interpretation of PeRT wall monitoring data is found in the *Interim Remedial Action Progress Report* (DOE 2001c), and the 2000 analytical results of PeRT wall monitoring are included in Appendix A. A PeRT wall Treatability Study Report will be prepared in 2002 to evaluate the first 2 years of monitoring data.

A complete description of the MMTS groundwater systems, including detailed analysis of the nature and extent of groundwater contamination, groundwater flow, contaminant transport, and groundwater and surface water interaction, is presented in the *Monticello Mill Tailings Site, Operable Unit III, Remedial Investigation* (DOE 1998) report.

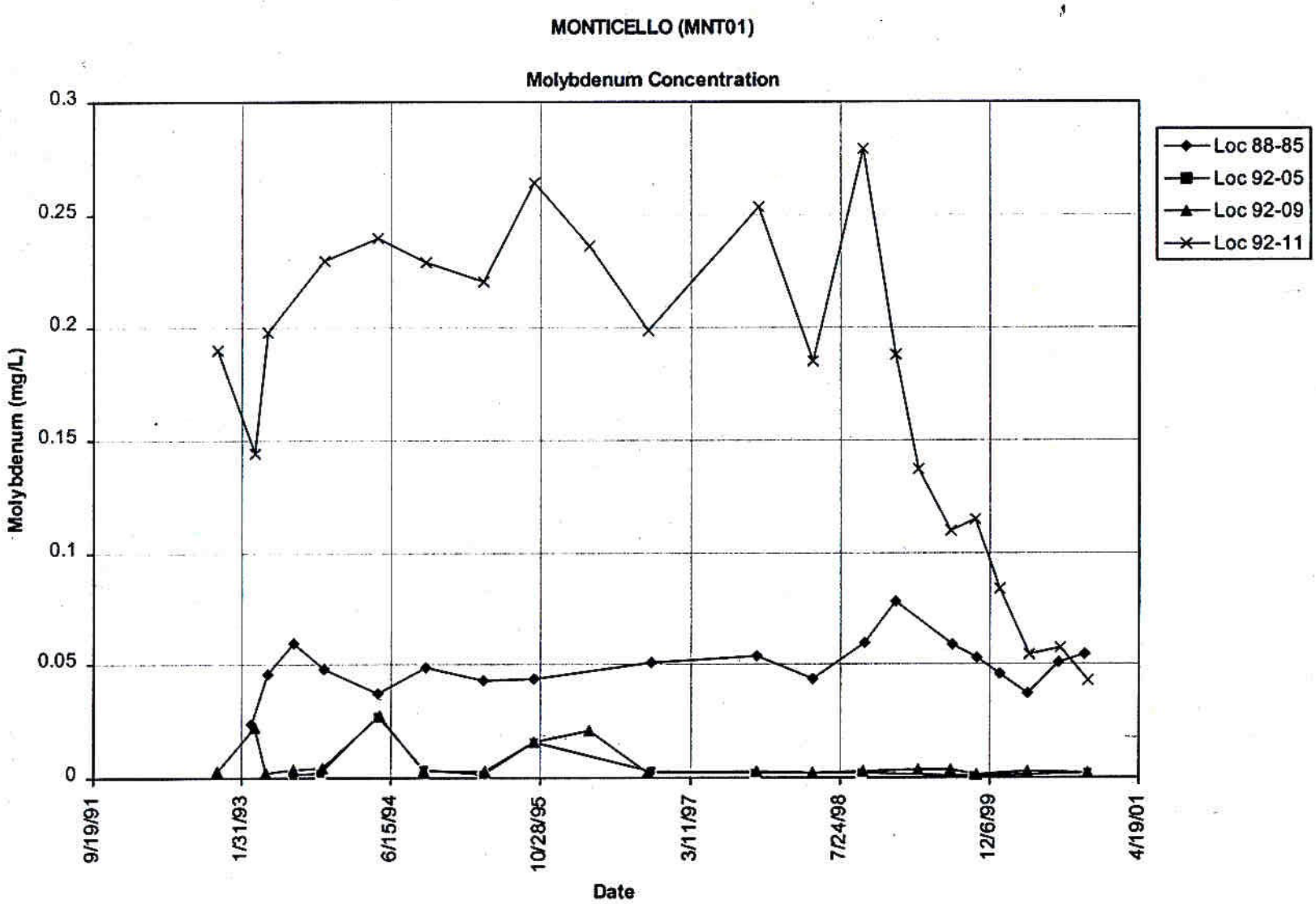

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Figure 11. Molybdenum Concentrations at Selected Alluvial Wells

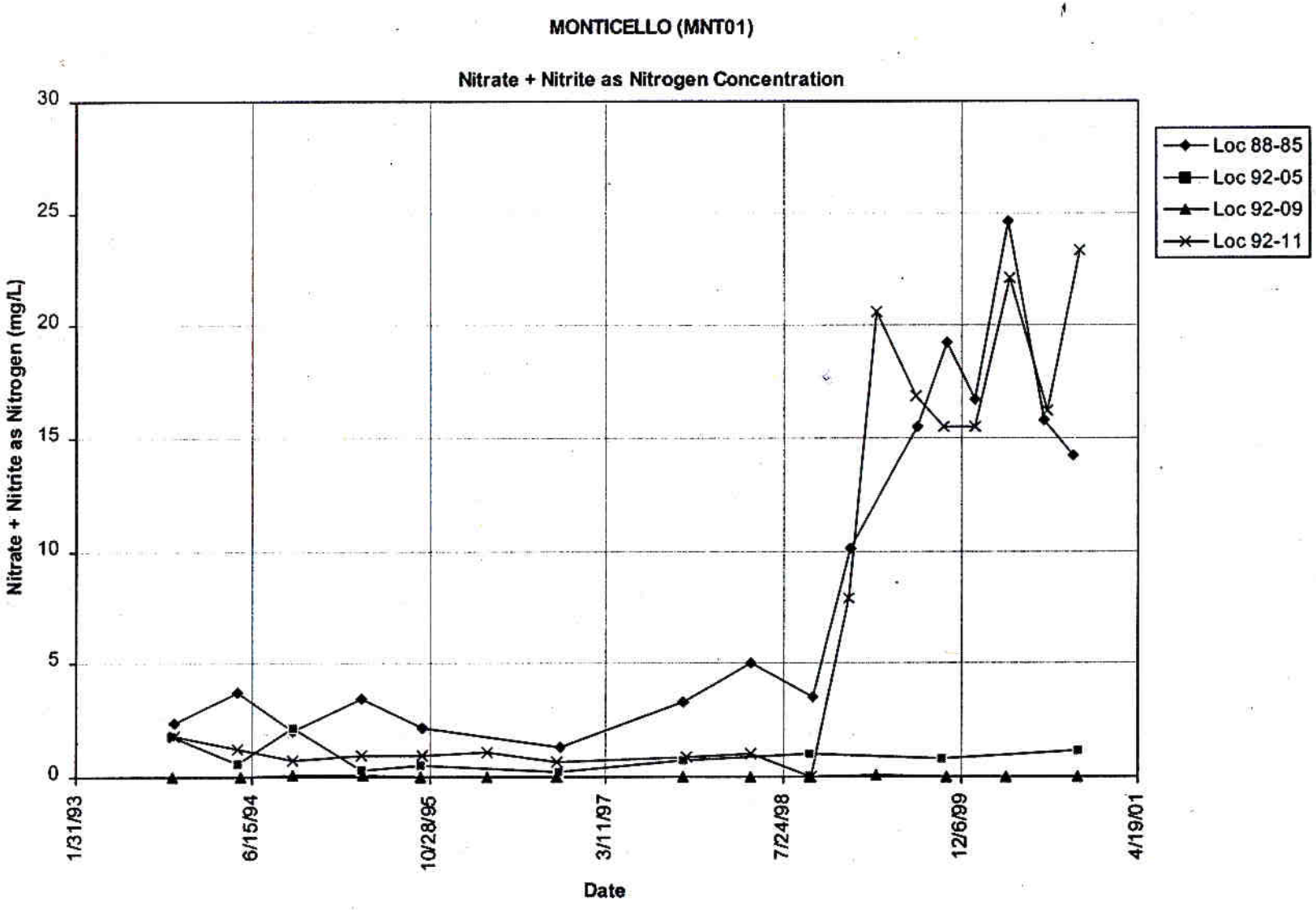

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Figure 12. Nitrate +Nitrate as Nitrogen Concentrations at Selected Alluvial Wells

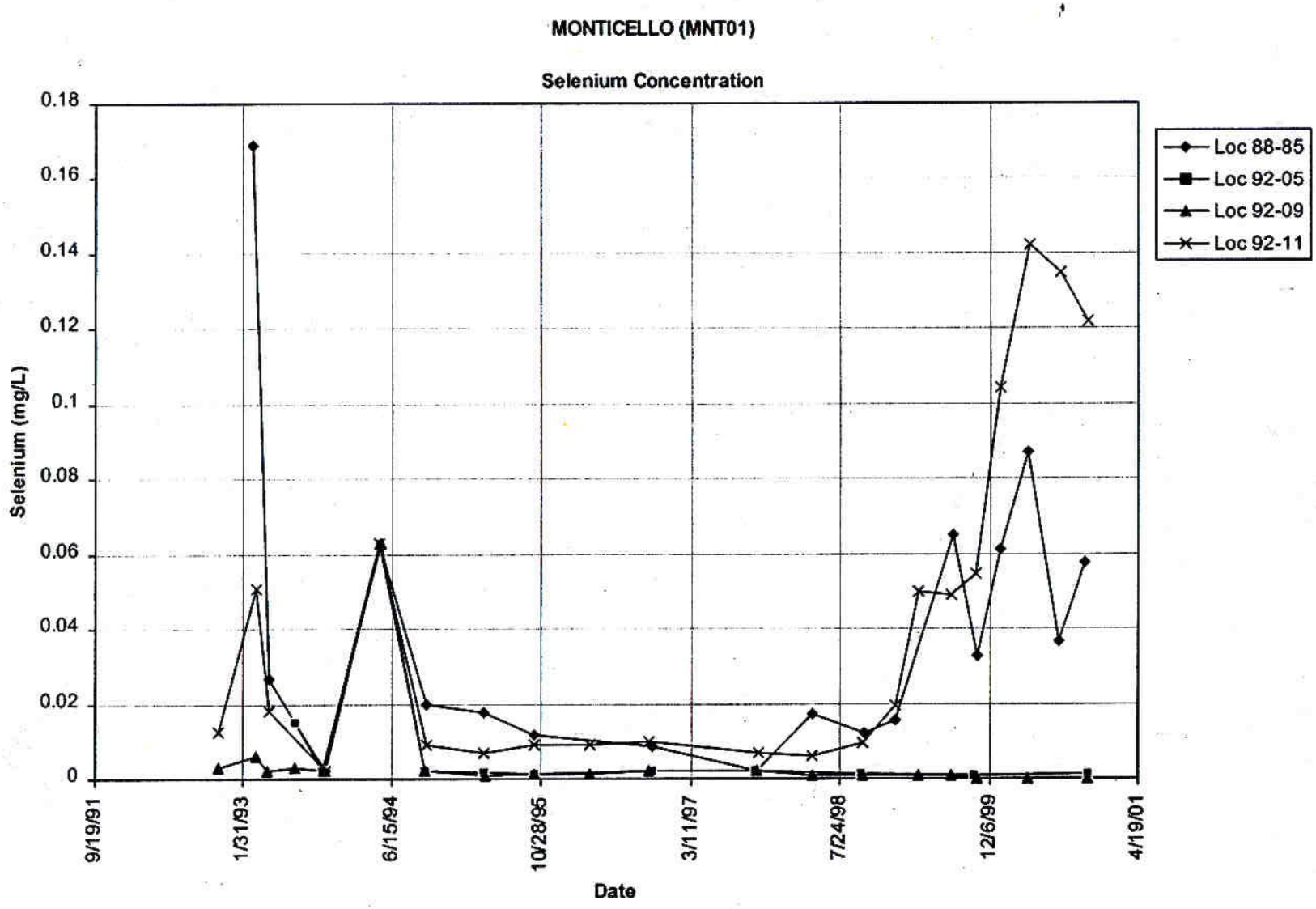

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Figure 13. Selenium Concentrations at Selected Alluvial Wells

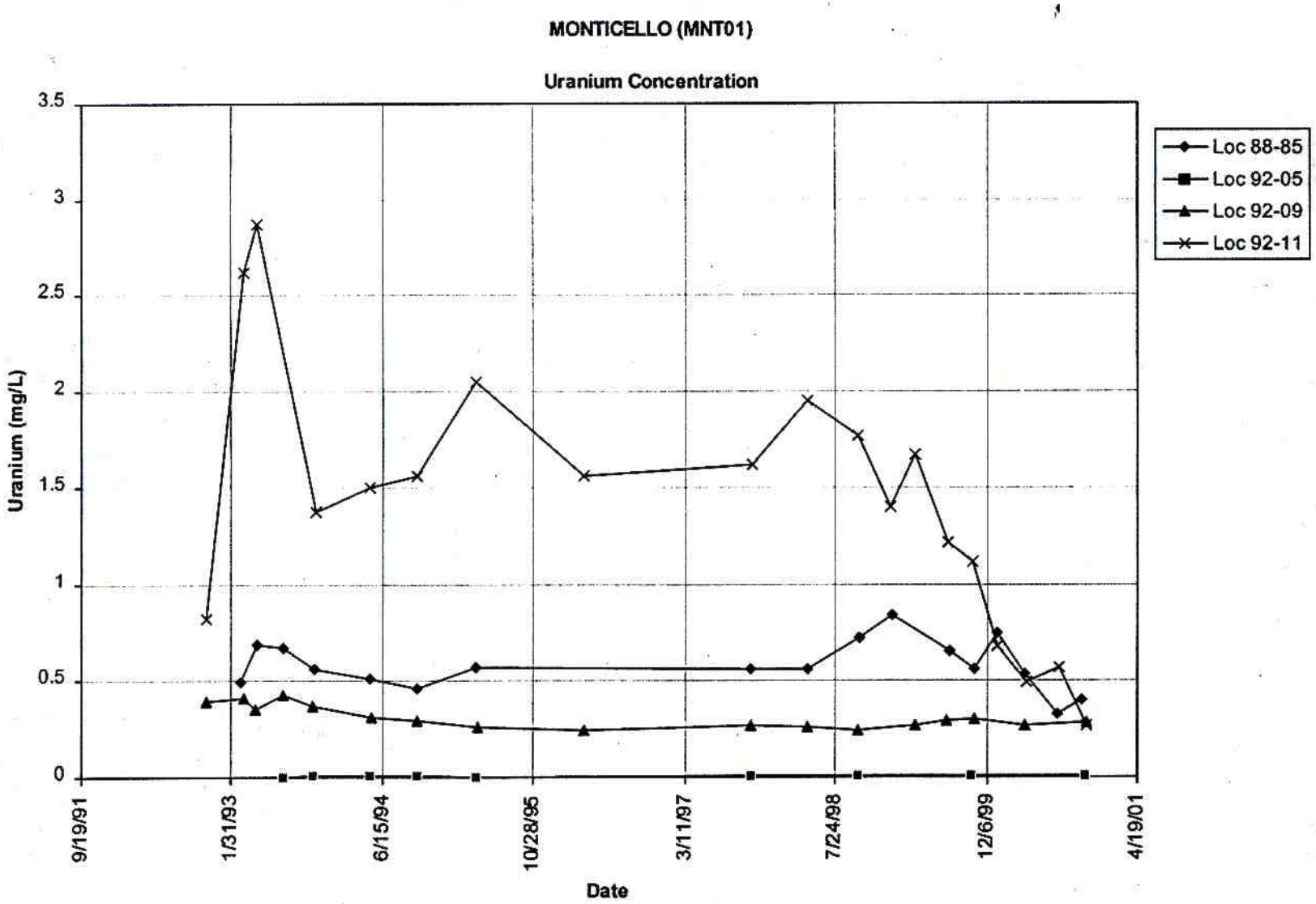

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Figure 14. Uranium Concentrations at Selected Alluvial Wells

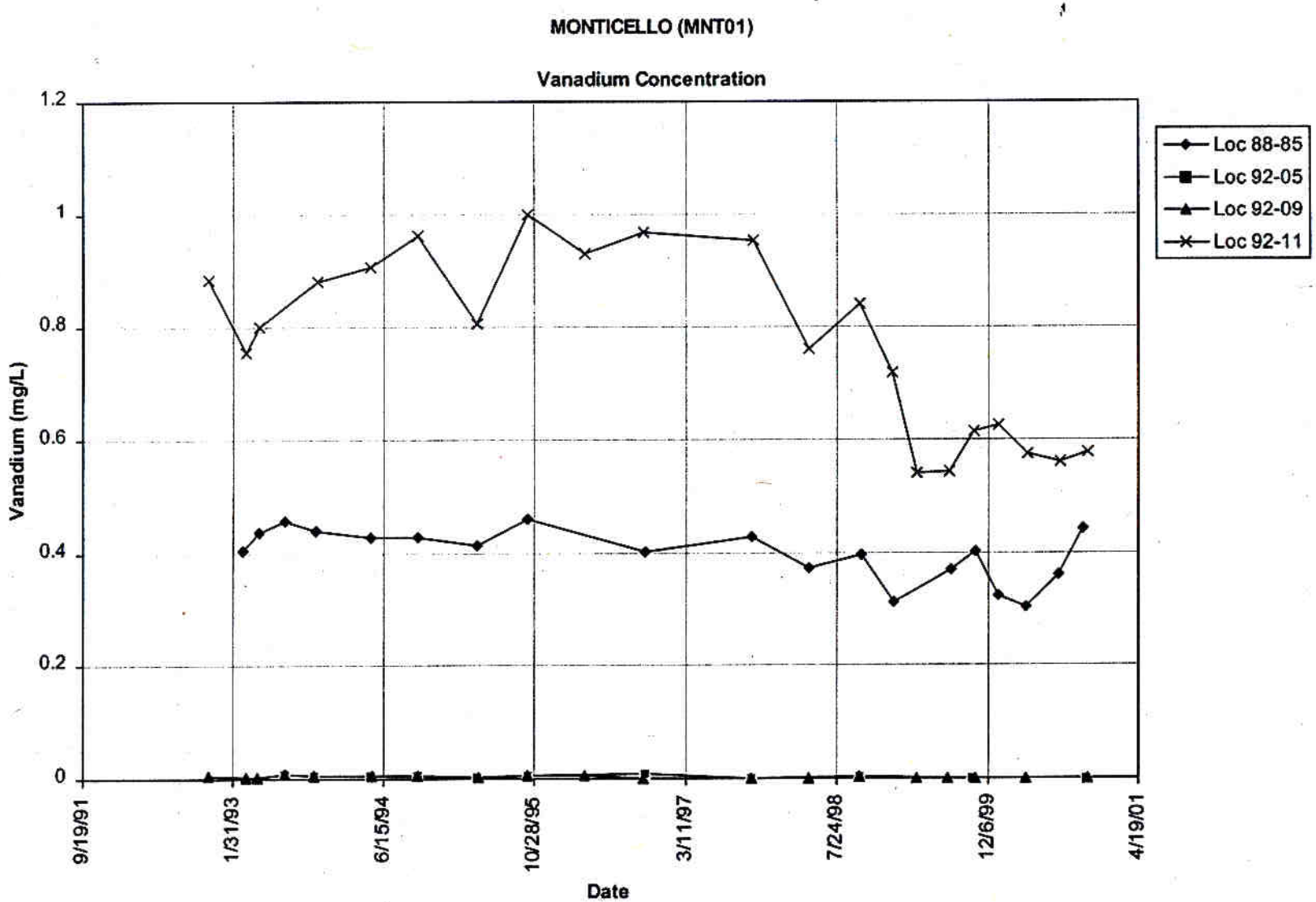

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Figure 15. Vanadium Concentrations at Selected Alluvial Wells

Table 5. Comparison of Federal[a,b] and State of Utah[c] Groundwater Quality Standards with 2000 and Historical Maximum Concentrations in Alluvial Aquifer[d]

Constituent	Federal Standard	State Standard	2000 Maximum [e]			Historical Maximum [e,f]		
			Upgradient	On-Site	Downgradient	Upgradient	On-Site	Downgradient
		Anion						
Fluoride	4.0[a]	4.0 (mg/L)	0.166	0.691	1.1	0.287	5.66	0.936
Nitrate as Nitrogen [g]	10[a,b]	10.0 (mg/L)	1.15	55.1	36.6	4.72	263	33.3
		General						
pH	6.5-8.5[a]	6.5-8.5 (s.u.)	6.55-7.05	6.1-7.29	5.57-7.36	6.37-7.32	6-9.25	5.9-9.23
		Metal						
Arsenic	0.05[a]	0.05 (mg/L)	<0.0003	~0.019	0.026	~0.0108	1.104	0.054
Molybdenum	0.1[b]	--- (mg/L)	0.0025	0.514	0.124	~0.0036	34.2	0.53
Selenium	0.05[a]; 0.01[b]	0.05 (mg/L)	0.0018	0.103	0.190	~0.0051	0.402	~0.169
		Radiological						
Net Alpha [h]	15[a,b]	15 (pCi/L)	<13.9	~7.52	~130	~4.12	~4320	873
Radium-226+228	5[a,b]	5 (pCi/L)	<0.83	<0.85	3.2	0.66	44	11.9
Uranium-234+238 [i]	30 µg/L[a]; 30 pCi/L[b]	--- (pCi/L)	6.71	725	725	8.48	8590	2280

[a] Standards from the Safe Drinking Water Act.
[b] Standards from the Uranium Mill Tailings Radiation Control Act, revised in 1986.
[c] State of Utah Ground Water Quality Standards, Title 26, Chapter 11, Utah Code Annotated. Not all state standards are listed in this table.
[d] A "---" indicates no data available; a "<" indicates that the maximum concentration was below the detection limit (number shown is detection limit); a "~" indicates an estimated value.
[e] The values are in units shown under the Federal/State Standard column.
[f] Based on maximum concentrations observed from 1984 through 1999.
[g] Nitrate (as N) was derived using the following conversion: nitrate (as N) = $NO_3 \div 4.427$.
[h] Measured values represent total gross alpha minus uranium activity. Uranium concentrations, which were measured in milligrams per liter, were converted to picocuries per liter. This conversion assumes equilibrium and an activity of 0.687 picocuries per microgram (pCi/µg).
[i] Total uranium concentrations, which were measured in milligrams per liter, were converted to Uranium-234+238 in picocuries per liter for comparison purposes. This conversion assumes equilibrium and an activity of 0.671 picocuries per microgram (pCi/µg).

4.0 References

36 CFR 800. Parks forests, and Public Property, “Protection of Historic and Cultural Properties,” *Code of Federal Regulations*.

40 CFR 192. U.S. Environmental Protection Agency, "Uranium Mill Tailings Radiation Control Act," *Code of Federal Regulations*.

40 CFR 355. U.S. Environmental Protection Agency, "Emergency Planning and Notification," *Code of Federal Regulations*.

40 CFR 370. U.S. Environmental Protection Agency, "Hazard Chemical Reporting: Community Right-to-Know," *Code of Federal Regulations*.

40 CFR 761. U.S. Environmental Protection Agency, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," *Code of Federal Regulations*.

50 CFR 402. U.S. Fish and Wildlife Service, "Endangered Species Act," *Code of Federal Regulations.*

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———, 2001c. *Monticello Mill Tailings Site, Operable Unit III, Interim Remedial Action Progress Report, July 2000—July 2001,* prepared for the U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, August.

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Appendix A

Monitoring Data

Table A-1. Surface-Water Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide[b] (mg/L)	Ca (mg/L)	Chloride (mg/L)	EC[b] (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
Deer Draw	NDJ 857	08/28/2000	--	0.0024	--	--	--	--	0.449	--	--
SW00-01	NDE 911	04/18/2000	196	0.00024	<0.0635	148	9.67	1544	<0.0074	0.174	--
	NDE 850	07/17/2000	130	<0.0003	0.0775	135	7.42	847	<0.0091	0.201	--
	NDE 923	10/20/2000	263	0.00045	0.0717	124	6.45	8190	0.0219	0.202	--
SW00-02	NDE 912	04/18/2000	208	<0.0002	0.0645	234	20.6	1444	<0.0074	0.164	--
	NDE 917	07/17/2000	145	<0.0003	0.0798	246	15.6	1474	<0.0091	0.162	--
	NDE 925	10/20/2000	328	0.00024	0.113	277	19.4	1629	<0.0117	0.178	--
SW00-03	NDE 909	04/18/2000	209	<0.0002	0.0684	237	24.5	1515	<0.0074	0.162	--
	NDE 910	04/18/2000	--	0.00034	0.0732	239	24.4	--	0.009	0.191	--
	NDE 918	07/17/2000	143	0.00039	0.108	230	24.9	1487	<0.0091	0.190	--
SW00-04	NDE 906	04/17/2000	197	0.00042	0.135	222	35.4	1549	<0.0074	0.174	--
	NDE 919	07/17/2000	--	0.00066	0.201	214	44.2	1598	<0.0091	0.196	--
	NDE 920	07/17/2000	--	0.00088	0.197	213	44.2	--	<0.0091	0.186	--
	NDK 449	10/19/2000	--	0.0008	0.153	239	36.5	1661	<0.0117	0.203	--
SW92-03	NDK 412	10/30/2000	225	0.00034	0.0729	132	7.26	839	<0.0117	0.196	--
SW92-06	NDE 879	01/13/2000	221	<0.0004	0.0847	219	15.1	1370	<0.0089	0.137	--
SW92-08	NDE 905	04/17/2000	172	0.00058	0.155	204	37.8	1497	<0.0074	0.190	--
	NDK 448	10/19/2000	250	0.00089	0.144	231	34.8	1622	<0.0117	0.209	--
SW94-01	NDE 904	04/17/2000	220	0.0015	0.294	171	59.6	1469	0.0074	0.283	--
	NDK 447	10/19/2000	--	0.00081	0.163	207	36.9	1625	0.0165	0.208	--
SW99-01	NDE 831,NDE 832	01/13/2000	217	<0.0004	<0.008	140	8.97	982	<0.0089	0.151	--
SW99-04	NDE 876	01/13/2000	262	0.00058	0.114	226	29.7	1562	<0.0089	0.144	--
Seep 4307	NDE 902	04/14/2000	345	<0.0002	--	--	--	8490	<0.0074	--	--
	NDE 888	10/20/2000	106	0.00036	--	126	52.6	1671	<0.0117	0.375	--
Seep 5215	NDE 903	04/14/2000	405	0.0007	--	--	--	5550	<0.0074	--	--
	NDG 424	07/17/2000	--	0.0005	--	367	--	--	0.0092	--	--
	NDJ 860	09/14/2000	--	--	--	--	--	--	--	--	15.87
	NDE 887	10/20/2000	520	0.00086	--	487	147	6860	<0.0117	0.274	--
Sorenson	NDE 877	01/13/2000	289	<0.0004	0.119	251	25.7	1635	<0.0089	0.145	--
	NDE 878	01/13/2000	--	<0.0004	0.112	247	26.2	--	<0.0089	0.156	--
	NDE 907	04/18/2000	224	0.00039	0.125	257	37.7	1700	0.0124	0.186	--
	NDK 438	08/02/2000	188	0.00064	0.221	270	51.6	3240	<0.0091	0.267	--
	NDK 450	10/19/2000	298	0.0009	0.155	273	35.8	1663	<0.0117	0.195	--
	NDE 921	10/19/2000	--	0.00088	0.154	271	35.9	--	<0.0117	0.201	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered unless otherwise noted.
[b] Sample was unfiltered.
[c] Estimated.

Table A-1. Surface-Water Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Alpha[b] (pCi/L)	Gross Beta (pCi/L)	Gross Beta[b] (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NO_3+NO_2 As N (mg/L)
Deer Draw	NDJ 857	08/28/2000	--	--	--	--	--	0.0496	0.0204	--	--
SW00-01	NDE 911	04/18/2000	<6.44	--	<6.29	1.50	22.2	0.0066	<0.0004	27.7	<0.0324
	NDE 850	07/17/2000	<6.55[c]	--	<7.63	2.04	22.9	0.005	0.0021	25.5	0.238
	NDE 923	10/20/2000	<8.96	--	<7.52	1.91	19.0	0.0082	0.0017	21.6	<0.0324
SW00-02	NDE 912	04/18/2000	<10.74	--	13	2.27	42.2	0.0734	0.003	42.6	0.361
	NDE 917	07/17/2000	~14.98	--	<12.79	2.79	49.2	0.0126	0.0026	44.9	0.0466
	NDE 925	10/20/2000	~12.18	--	9.92	2.92	51.0	0.0882	0.0041	47.9	0.730
SW00-03	NDE 909	04/18/2000	10.77	--	11.91	2.41	44.5	0.0761	0.0037	49.3	0.327
	NDE 910	04/18/2000	19.65	--	13.15	2.42	44.9	0.0777	0.0037	49.7	0.333
	NDE 918	07/17/2000	~29.83	--	23.31	3.62	49.9	0.0492	<0.0003	59.3	<0.0324
SW00-04	NDE 906	04/17/2000	45.98	--	21.39	3.21	48.6	0.117	0.008	73.6	0.376
	NDE 919	07/17/2000	~55.23	--	37.44	4.59	51.3	0.0176	0.0125	96.5	<0.0324
	NDE 920	07/17/2000	~49.12	--	40.67	4.60	51.2	0.0189	0.0123	97.4	<0.0324
	NDK 449	10/19/2000	~41.92	--	29.85	4.54	53.3	0.189	0.0125	84.5	0.467
SW92-03	NDK 412	10/30/2000	<9.13	--	9.41	1.97	20.0	0.0072	0.0019	23.1	<0.0324[c]
SW92-06	NDE 879	01/13/2000	9.57	--	13.58	3.15	40.6	0.0745	0.0016	42.7	~0.537
SW92-08	NDE 905	04/17/2000	~36.04	--	19.55	3.28	46.9	0.131	0.009	74.6	0.109
	NDK 448	10/19/2000	~41.03	--	28.99	4.41	50.1	0.123	0.0118	81.5	0.282
SW94-01	NDE 904	04/17/2000	~17.62	--	13.54	4.68	54.3	0.0915	0.0079	92.6	<0.0324
	NDK 447	10/19/2000	~51.24	--	28.42	4.62	49.8	0.0213	0.0122	84.8	0.138
SW99-01	NDE 831,NDE 832	01/13/2000	<7.54	--	<10.46	1.68	21.1	0.0113	<0.0004	29.0	~0.0847
SW99-04	NDE 876	01/13/2000	29.11	--	18.01	3.07	45.6	0.185	0.006	68.1	~0.636
Seep 4307	NDE 902	04/14/2000	--	--	--	--	--	0.004	0.514	--	80.000
	NDE 888	10/20/2000	~109.9	--	68.04	8.26	27.9	<0.0020	0.110	179	0.488
Seep 5215	NDE 903	04/14/2000	--	--	--	--	--	0.0081	1.320	--	81.900
	NDG 424	07/17/2000	--	--	--	2.63	254	0.0415	1.820	1490	--
	NDJ 860	09/14/2000	--	<7.63	--	--	--	--	--	--	--
	NDE 887	10/20/2000	~608.81	--	337.47	5.40	206	0.448	1.430	1170	54.100
Sorenson	NDE 877	01/13/2000	21.82	--	13.01	2.93	49.4	0.123	0.0055	62.9	~0.643
	NDE 878	01/13/2000	21.84	--	20.07	2.92	48.7	0.121	0.0049	62.0	~0.649
	NDE 907	04/18/2000	44.45	--	28.67	3.02	51.5	0.117	0.0087	72.7	0.725
	NDK 438	08/02/2000	87.77	--	47.68	5.46	64.8	0.0208	0.019	117	0.233
	NDK 450	10/19/2000	~42.52	--	31.65	4.12	56.5	0.170	0.011	78.9	0.842
	NDE 921	10/19/2000	~38.88	--	36.36	4.09	56.7	0.174	0.0114	79.7	0.843

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered unless otherwise noted.
[b] Sample was unfiltered.
[c] Estimated.

Table A-1. Surface-Water Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ORP[b] (mV)	Pb-210[b] (pCi/L)	pH[b] (s.u.)	Ra-226[b] (pCi/L)	Ra-228[b] (pCi/L)	Rn-222[b] (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS[b] (mg/L)	Th-230 (pCi/L)	TMP[b] (C)
Deer Draw	NDJ 857	08/28/2000	--	--	--	--	--	--	0.0015	--	--	<1	--
SW00-01	NDE 911	04/18/2000	--	<0.28	8.13	<0.36	--	<18.49	0.00075	298	660	<1.5	5.6
	NDE 850	07/17/2000	--	<0.26	8.21	<0.86	<4.63	<15.46	0.00018	319	682	<2.6	19.5
	NDE 923	10/20/2000	--	<0.29	7.56	<0.54	<3.83	<21.64	0.00012	225	588	<1.7	3.1
SW00-02	NDE 912	04/18/2000	--	<0.29	8.09	<0.8	--	<18.59	0.0027	577	1110	<1.5	5.5
	NDE 917	07/17/2000	--	<0.26	7.87	<0.87	<4.69	<15.53	0.0019	720	1310	<2.6	24.1
	NDE 925	10/20/2000	142	<0.31	7.93	<0.57	<4.00	351.68	0.0041	661	1320	<1.7	12.2
SW00-03	NDE 909	04/18/2000	--	<0.27	8.08	<0.45	--	24.36	0.0071	613	1170	<1.5	6.3
	NDE 910	04/18/2000	--	<0.28	--	<0.53	--	25.45	0.0076	608	1170	<1.5	--
	NDE 918	07/17/2000	--	<0.27	7.87	<0.90	<4.80	22.02	0.0039	704	1300	<2.6	21.8
SW00-04	NDE 906	04/17/2000	--	<0.28	8.18	<0.56	--	101.39	0.0076	654	1190	<1.5	15.8
	NDE 919	07/17/2000	--	<0.28	8.03	<0.91	<4.85	56.4	0.0059	700	1340	<2.6	23.3
	NDE 920	07/17/2000	--	<0.28	--	0.88	<4.62	61.84	0.006	702	1340	<2.6	--
	NDK 449	10/19/2000	88	<0.29	8.14	<0.66	<4.64	170.73	0.0074	678	1350	<1.7	8.6
SW92-03	NDK 412	10/30/2000	557	<0.28	7.58	<0.86	<4.31	<45.33	0.00015	241	602	<1.7	6.5
SW92-06	NDE 879	01/13/2000	--	0.39	8	<1.14	--	<23.62	0.0024	525	1140	<0.88	3.2
SW92-08	NDE 905	04/17/2000	--	<0.27	8.31	<0.67	--	46.24	0.0068	630	1170	<1.5	16
	NDK 448	10/19/2000	97	<0.28	10.78	0.73	<3.97	57.59	0.0056	648	1320	<1.7	6.8
SW94-01	NDE 904	04/17/2000	--	<0.28	8.36	<0.33	--	41.22	0.0033	498	1100	<1.5	16.2
	NDK 447	10/19/2000	--	<0.30	10.1	0.74	<3.94	54.03	0.0053	637	1290	<1.7	6.1
SW99-01	NDE 831,NDE 832	01/13/2000	189	<0.27	--	<0.36	--	<23.40	0.00046	255	695	<0.88	0.3
SW99-04	NDE 876	01/13/2000	--	0.29	7.68	<0.72	--	236.99	0.0028	564	1280	<0.88	0
Seep 4307	NDE 902	04/14/2000	--	--	7.39	--	--	--	0.161	--	--	<1.5	7.3
	NDE 888	10/20/2000	67	--	8.97	--	--	--	0.0035	668	--	<1.7	18.2
Seep 5215	NDE 903	04/14/2000	--	--	6.95	--	--	--	0.0167	--	--	<1.5	6.7
	NDG 424	07/17/2000	--	--	--	--	--	--	0.0175	--	--	<2.6	--
	NDJ 860	09/14/2000	--	--	--	--	--	--	--	--	--	--	--
	NDE 887	10/20/2000	--	--	8.15	--	--	--	0.0244	3610	--	<1.7	20.9
Sorenson	NDE 877	01/13/2000	--	<0.27	7.65	<0.69	--	144.85	0.0031	628	1380	<0.88	0
	NDE 878	01/13/2000	--	<0.26	--	<0.56	--	129.56	0.0034	638	1370	<0.88	--
	NDE 907	04/18/2000	--	<0.32	7.9	<0.54	--	121.03	0.0084	693	1310	<1.5	5.5
	NDK 438	08/02/2000	--	<0.26	7.8	<0.79	<4.16	55.46	0.0097	909	1680	<2.6	19.7
	NDK 450	10/19/2000	177	<0.30	8.02	0.66	<3.91	111.11	0.0075	727	1460	<1.7	11.3
	NDE 921	10/19/2000	--	<0.30	--	0.97	<3.99	140.59	0.0078	726	1480	<1.7	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered unless otherwise noted.
[b] Sample was unfiltered.
[c] Estimated.

Table A-1. Surface-Water Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Turbidity[b] (NTU)	U (mg/L)	U-234 (pCi/L)	U-234[b] (pCi/L)	U-235 (pCi/L)	U-235[b] (pCi/L)	U-238 (pCi/L)	U-238[b] (pCi/L)	V (mg/L)
Deer Draw	NDJ 857	08/28/2000	--	0.0179	5.76	--	<0.32	--	5.68	--	0.011
SW00-01	NDE 911	04/18/2000	26.4	0.0037	--	--	--	--	--	--	0.0011
	NDE 850	07/17/2000	11.9	0.0039	--	--	--	--	--	--	<0.0013
	NDE 923	10/20/2000	10.6	0.0024	--	<0.52	--	--	--	0.85	<0.0013
SW00-02	NDE 912	04/18/2000	248	0.0184	--	--	--	--	--	--	0.0041
	NDE 917	07/17/2000	3.14	0.0143	--	--	--	--	--	--	0.0018
	NDE 925	10/20/2000	35.7	0.0237	--	9	--	--	--	8.9	0.0023
SW00-03	NDE 909	04/18/2000	55.8	0.0338	--	--	--	--	--	--	0.003
	NDE 910	04/18/2000	--	0.0335	--	--	--	--	--	--	0.0024
	NDE 918	07/17/2000	--	0.0451	--	--	--	--	--	--	0.0026
SW00-04	NDE 906	04/17/2000	9.8	0.0732	--	--	--	--	--	--	0.0039
	NDE 919	07/17/2000	2.63	0.102	--	--	--	--	--	--	<0.0013
	NDE 920	07/17/2000	--	0.101	--	--	--	--	--	--	0.0021
	NDK 449	10/19/2000	--	0.0864	--	30.9	--	--	--	32.8	0.0028
SW92-03	NDK 412	10/30/2000	6.4	0.0025	--	1.9	--	--	--	0.99	<0.0013
SW92-06	NDE 879	01/13/2000	122	0.0282	--	--	--	--	--	--	<0.0010
SW92-08	NDE 905	04/17/2000	8.42	0.0726	--	--	--	--	--	--	0.0033
	NDK 448	10/19/2000	2.29	0.0848	--	29.3	--	--	--	29.8	0.003
SW94-01	NDE 904	04/17/2000	5.87	0.0387	--	--	--	--	--	--	0.0037
	NDK 447	10/19/2000	--	0.0822	--	29.1	--	--	--	32.7	0.0015
SW99-01	NDE 831,NDE 832	01/13/2000	--	0.0032	--	--	--	--	--	--	<0.001
SW99-04	NDE 876	01/13/2000	--	0.0638	--	--	--	--	--	--	<0.0010
Seep 4307	NDE 902	04/14/2000	7.5	1.480	--	487.1	--	20.7	--	491.62	<0.0004
	NDE 888	10/20/2000	7.8	0.197	--	67.9	--	--	--	71.1	<0.0013
Seep 5215	NDE 903	04/14/2000	2.91	0.824	--	324.79	--	12.37	--	327.04	<0.0004
	NDG 424	07/17/2000	--	1.160	--	373.84	--	18	--	372.7	0.0061
	NDJ 860	09/14/2000	--	--	10.76	--	<0.45	--	9.62	--	--
	NDE 887	10/20/2000	21	1.050	--	358	--	--	--	375	0.0015
Sorenson	NDE 877	01/13/2000	70.9	0.0658	--	--	--	--	--	--	<0.0010
	NDE 878	01/13/2000	--	0.0635	--	--	--	--	--	--	<0.0010
	NDE 907	04/18/2000	35.9	0.0805	--	--	--	--	--	--	0.0028
	NDK 438	08/02/2000	3.34	0.162	--	--	--	--	--	--	0.0025
	NDK 450	10/19/2000	45	0.087	--	31.4	--	--	--	33	0.0048
	NDE 921	10/19/2000	--	0.0891	--	32.6	--	--	--	31.7	0.0042

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered unless otherwise noted.
[b] Sample was unfiltered.
[c] Estimated.

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
31NE93-205	NDK 417	10/31/2000	--	0.0255	<0.0665	72.6	2.76	0.3	589	0.627	0.0995	<9.10
31SW93-197-2	NDE 778	07/26/2000	165	<0.0003	<0.0665	58.3	1.99	0.13	499	0.272	0.165	<3.26[b]
	NDK 406	10/19/2000	172	<0.0002	<0.0665	58.8	1.47	0.18	497	0.299	0.152	<7.69
	NDK 408	10/19/2000	--	<0.0002	<0.0665	58.2	1.40	--	--	0.301	0.132	<7.52
31SW93-197-3	NDE 776	07/26/2000	1973	0.0025	<0.0665	24.8	6.85	2.5	7800	0.0178	0.718	~9.62
	NDK 409	10/20/2000	--	0.00064	<0.0665	22.5	4.55	--	573	<0.0117	0.641	<8.99
31SW93-197-4	NDK 432	07/27/2000	915	<0.0003	0.176	54.3	27.4	--	2800	0.0134	0.886	<13.89[b]
	NDK 407	10/19/2000	--	<0.0002	--	51.7	--	--	3010	0.0533	--	--
31SW93-197-5	NDG 423	04/24/2000	508	<0.0002	--	325	--	--	2710	<0.0074	--	--
	NDE 777	07/26/2000	496	<0.0003	0.409	317	92.2	5.87	4170	<0.0091	0.345	<14.22
	NDK 405	10/19/2000	546	<0.0002	0.373	330	97.4	8.8	2540	<0.0117	0.688	<13.14[b]
82-07	NDE 848	04/14/2000	339	0.0013	0.152	267	61.3	--	1481	<0.0074	0.338	~69.24
	NDK 434	07/27/2000	236	0.0015	0.339	313	91.1	2.06	1929	0.0383	0.329	~36.22
82-08	NDE 770	01/12/2000	209	0.00067	0.706	402	228	1.82	3190	0.783	0.557	24.02
	NDE 849	04/14/2000	224	0.00038	0.730	432	252	1.12	3400	<0.0074	0.764	~51.43
	NDE 783	07/28/2000	141	<0.0003	0.739	387	196	0.86	2480	<0.0091	0.749	23.39
	NDK 425	11/02/2000	142	0.00045	0.660	369	194	3.3	2910	0.0121	0.625	<13.23[b]
82-20	NDK 421	11/01/2000	210	<0.0002	0.0791	451	18.4	--	2470	0.0231	0.140	~12.81
83-70	NDE 882	04/18/2000	144	<0.0002	<0.0635	55.3	2.93	1.33	610	0.344	0.138	<3.73
	NDK 410	10/19/2000	236	<0.0002	<0.0665	54.1	2.87	0.47	613	0.375	0.144	<7.83
88-85	NDE 769	01/12/2000	384	0.0078	0.562	371	190	1.08	3460	<0.0089	0.298	468.45
	NDE 901	04/13/2000	348	0.0038	0.609	362	182	0.24	3250	<0.0074	0.279	~332.92
	NDE 781	07/27/2000	311	0.0085	0.452	269	123	0.41	2850	<0.0091	0.410	~166.78
	NDE 786	10/18/2000	--	0.012	0.482	321	149	--	--	0.0131	0.410	~243.81
92-05	NDK 414	10/30/2000	--	<0.0002	0.110	266	16.4	--	1520	<0.0117	0.126	<8.58[b]
92-06	NDK 411	10/30/2000	189	0.00028	<0.0665	72.8	2.15	1.4	560	0.109	0.124	<7.61
92-07	NDE 768	01/12/2000	327	0.0079	0.666	333	135	2.5	3470	<0.0089	0.328	570.87
	NDE 881	04/18/2000	269	0.008	0.482	325	117	2.96	3150	<0.0074	0.348	483.64
	NDE 782	07/27/2000	247	0.0072	0.576	309	92.5	3.45	3010	<0.0091	0.373	~274.57
	NDK 404	10/18/2000	315	0.0096	0.539	344	94.2	3.1	3330	<0.0117	0.437	~607.22
92-08	NDE 763	01/10/2000	333	<0.0004	0.356	349	119	1.83	2490	<0.0089	0.283	190.11
	NDE 764	01/10/2000	--	<0.0004	0.408	342	118	--	--	<0.0089	0.260	177.06
	NDE 843	04/13/2000	301	0.00022	0.185	293	87.4	2.16	2190	0.0084	0.244	~160.74

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
31NE93-205	NDK 417	10/31/2000	<7.54	4.31	21.1	0.691	0.00063	89.4	--	--	--	--	--
31SW93-197-2	NDE 778	07/26/2000	<3.81	2.05	9.43	0.280	<0.0003	32.9	--	--	--	--	--
	NDK 406	10/19/2000	<7.46	2.14	9.51	0.290	0.0021	31.9	--	--	--	--	--
	NDK 408	10/19/2000	7.94	2.13	9.42	0.292	0.0018	31.7	--	--	--	--	--
31SW93-197-3	NDE 776	07/26/2000	<7.67	4.33	8.92	0.0069	0.0258	146	--	--	--	--	--
	NDK 409	10/20/2000	<7.53	4.23	8.36	0.0128	0.017	129	--	--	--	--	--
31SW93-197-4	NDK 432	07/27/2000	<14.94	9.10	21.3	0.0257	<0.0003	618	--	--	--	--	--
	NDK 407	10/19/2000	--	9.26	19.5	0.0281	0.004	634	--	--	--	--	--
31SW93-197-5	NDG 423	04/24/2000	--	5.09	67.9	0.0014	<0.00040	258	--	--	--	--	--
	NDE 777	07/26/2000	15.02	4.85	65.7	<0.0015	<0.00030	255	--	--	--	--	--
	NDK 405	10/19/2000	<13.18	5.09	68.3	0.0028	<0.0003	259	--	--	--	--	--
82-07	NDE 848	04/14/2000	33.15	6.10	60.4	<0.0004	0.0172	96.1	--	--	--	--	--
	NDK 434	07/27/2000	34.08	8.19	74.2	0.0066	0.0148	135	--	--	--	--	--
82-08	NDE 770	01/12/2000	16.87	8.39	126	0.251	0.0039	198	--	--	--	--	--
	NDE 849	04/14/2000	36.86	7.49	140	0.0094	0.0091	213	--	--	--	--	--
	NDE 783	07/28/2000	21.06	7.34	124	0.0182	0.0046	192	--	--	--	--	--
	NDK 425	11/02/2000	<13.18	7.33	118	0.0656	0.0025	186	--	--	--	--	--
82-20	NDK 421	11/01/2000	<11.58	2.83	92.5	0.310	0.0028	72.1	--	--	--	--	--
83-70	NDE 882	04/18/2000	4.67	2.89	11.1	0.298	<0.0004	63.1	--	--	--	--	--
	NDK 410	10/19/2000	<7.44	2.83	11.0	0.282	0.0004	62.1	--	--	--	--	--
88-85	NDE 769	01/12/2000	132.31	17.1	98.7	0.375	0.0462	318	--	--	--	--	--
	NDE 901	04/13/2000	172.86	14.9	93.0	0.155	0.0375	292	--	--	--	--	--
	NDE 781	07/27/2000	110.7	16.6	66.7	0.102	0.0509	283	--	--	--	--	--
	NDE 786	10/18/2000	115.25	18.1	77.9	0.124	0.0546	295	--	--	--	--	--
92-05	NDK 414	10/30/2000	<7.46	2.90	40.5	0.0129	0.0019	41.5	--	--	--	--	--
92-06	NDK 411	10/30/2000	<7.43	1.98	10.5	0.433	0.0019	32.1	--	--	--	--	--
92-07	NDE 768	01/12/2000	142.76	25.8	79.0	0.0754	0.0827	391	--	--	--	--	--
	NDE 881	04/18/2000	214.02	23.4	77.0	0.209	0.0733	349	--	--	--	--	--
	NDE 782	07/27/2000	196.81	24.2	73.5	0.378	0.0828	356	--	--	--	--	--
	NDK 404	10/18/2000	249.6	28.0	82.3	0.481	0.0949	394	--	--	--	--	--
92-08	NDE 763	01/10/2000	101.62	13.3	72.7	1.180	0.064	157	--	--	--	--	--
	NDE 764	01/10/2000	103.94	12.9	71.7	1.130	0.0677	156	--	--	--	--	--
	NDE 843	04/13/2000	93.15	11.5	59.8	0.393	0.0362	152	--	--	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
31NE93-205	NDK 417	10/31/2000	--	<0.0324	33	<0.31	6.85	<0.87	<4.50	138.22	<0.0001	289	592
31SW93-197-2	NDE 778	07/26/2000	--	<0.0324	-96	<0.26	7.31	<0.83	<4.17	176.77	<0.0001	73.1	323
	NDK 406	10/19/2000	--	<0.0324	-112	<0.26	7.48	0.76	<3.79	183.37	<0.0001	77.4	320
	NDK 408	10/19/2000	--	<0.0324	--	<0.26	--	0.69	<4.14	195.12	<0.0001	77.6	323
31SW93-197-3	NDE 776	07/26/2000	--	<0.0324	59	<0.31	7.62	<0.84	<4.42	87.66	0.00011	30.6	700
	NDK 409	10/20/2000	--	0.334	27	--	7.64	1.04	<4.17	66.97	0.0025	17.1	505
31SW93-197-4	NDK 432	07/27/2000	--	~3.960	118	<0.26	7.16	<0.85	<4.32	61.53	0.00026	622	2040
	NDK 407	10/19/2000	--	--	34	--	7.44	--	--	--	0.00059	--	--
31SW93-197-5	NDG 423	04/24/2000	--	--	140	--	6.14	--	--	--	0.0139	--	--
	NDE 777	07/26/2000	--	1.300	194	0.38	6.88	<0.80	<4.20	2429.53	0.0125	928	2150
	NDK 405	10/19/2000	--	1.230	207	0.83	6.71	<0.59	<4.16	5153.36	0.0118	920	2150
82-07	NDE 848	04/14/2000	--	3.450	97	<0.35	6.67	<0.5	--	442.28	0.0544	754	1530
	NDK 434	07/27/2000	--	5.620	143	<0.27	6.5	<0.88	<4.67	787.92	0.0713	961	1890
82-08	NDE 770	01/12/2000	--	~2.830	88	0.47	--	3.2	--	440.36	0.0058	1380	2910
	NDE 849	04/14/2000	--	3.650	90	<0.28	6.35	1.93	--	812.58	0.0175	1490	2900
	NDE 783	07/28/2000	--	5.030	189	<0.27	5.92	<0.87	<4.63	1037.89	0.0123	1440	2670
	NDK 425	11/02/2000	--	7.790	185	<0.34	5.57	1.4	<3.62	1477.46	0.0155	1410	2500
82-20	NDK 421	11/01/2000	--	1.180	203	<0.30	6.53	<0.66	<3.52	766.24	0.0036	1200	2260
83-70	NDE 882	04/18/2000	--	<0.0324	74	<0.27	6.96	1.51	--	263.08	<0.0002	102	335
	NDK 410	10/19/2000	--	<0.0324	-94	<0.27	7.44	1.54	<4.00	225.28	<0.0001	103	382
88-85	NDE 769	01/12/2000	--	~16.700	137	0.62	--	<0.32	--	1598.16	0.061	1220	~2880
	NDE 901	04/13/2000	--	24.600	125	0.55	6.13	<0.40	--	1937.47	0.087	1130	2610
	NDE 781	07/27/2000	--	15.800	196	<0.27	6.65	<0.79	<4.08	1859.43	0.0366	1040	2210
	NDE 786	10/18/2000	--	14.200	--	0.39	--	<0.55	<3.80	2034.71	0.0576	1060	2380
92-05	NDK 414	10/30/2000	--	~1.150	84	<0.30	7.05	<0.81	<4.18	431.67	0.0013	545	1160
92-06	NDK 411	10/30/2000	--	<0.0324[b]	-51	<0.29	7.24	<0.91	<4.34	126.06	<0.0001	91.0	340
92-07	NDE 768	01/12/2000	--	~26.900	167	0.46	--	<0.21	--	827.13	0.010	1310	~2880
	NDE 881	04/18/2000	--	36.600	103	<0.28	6.66	<0.32	--	750.89	0.0144	1280	2630
	NDE 782	07/27/2000	--	27.000	146	<0.28	6.66	<0.84	<4.40	762.82	0.0042	1390	2700
	NDK 404	10/18/2000	--	26.500	194	<0.28	6.23	<0.57	<4.03	1047.52	0.0063	1430	2820
92-08	NDE 763	01/10/2000	--	~1.310	186	0.43	6.25	<0.24	--	677.81	0.0246	948	2170
	NDE 764	01/10/2000	--	~1.230	--	0.51	--	<0.38	--	709.16	0.0256	939	2180
	NDE 843	04/13/2000	--	2.150	90	<0.35	6.69	<0.27	--	386.62	0.190	874	1780

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
31NE93-205	NDK 417	10/31/2000	<1.7	13.2	1.36	0.00027	1.6	--	<0.1	<0.0013
31SW93-197-2	NDE 778	07/26/2000	<2.6	14	1.33	<0.00010	<0.3	<0.19	<0.15	<0.0013
	NDK 406	10/19/2000	<1.7	13	0.77	<0.0001	<0.52	--	<0.1	<0.0013
	NDK 408	10/19/2000	<1.7	--	--	<0.0001	<0.52	--	<0.1	<0.0013
31SW93-197-3	NDE 776	07/26/2000	<2.6	16.4	60.4	0.0021	2.68	<0.08	0.58	<0.0013
	NDK 409	10/20/2000	<1.7	14.2	182	0.0015	<0.52	--	0.65	<0.0013
31SW93-197-4	NDK 432	07/27/2000	<2.6	11.7	200	0.0039	4.1	<0.17	1.19	<0.0013
	NDK 407	10/19/2000	<1.7	10.9	>1000	0.0044	--	--	--	0.0013
31SW93-197-5	NDG 423	04/24/2000	<1.5	10.5	72.1	0.0232	16.3	--	9.2	<0.0004
	NDE 777	07/26/2000	<2.6	11.8	151	0.0222	10.1	<0.42	7.34	<0.0013
	NDK 405	10/19/2000	<1.7	11.4	116	0.0234	12.4	--	9.6	<0.0013
82-07	NDE 848	04/14/2000	<1.5	7.6	156	0.120	--	--	--	0.0396
	NDK 434	07/27/2000	<2.6	23.4	237	0.102	--	--	--	0.0409
82-08	NDE 770	01/12/2000	<0.88	10.5	21.4	0.0465	--	--	--	0.0136
	NDE 849	04/14/2000	<1.5	9	1.29	0.111	--	--	--	0.0074
	NDE 783	07/28/2000	<2.6	13.3	0.66	0.0171	--	--	--	0.0048
	NDK 425	11/02/2000	<1.7	13.2	1.23	0.0052	--	--	--	0.006
82-20	NDK 421	11/01/2000	<1.7	9.1	>1000	0.0077	--	--	--	<0.0013
83-70	NDE 882	04/18/2000	<1.5	10.3	1.28	<0.00010	<0.44	--	<0.1	<0.0004
	NDK 410	10/19/2000	<1.7	12.3	1.81	<0.0001	<0.52	--	<0.1	<0.0013
88-85	NDE 769	01/12/2000	<0.88	9.7	3.52	0.745	--	--	--	0.325
	NDE 901	04/13/2000	<1.5	8.1	1.64	0.539	--	--	--	0.304
	NDE 781	07/27/2000	<2.6	15.1	1.52	0.323	--	--	--	0.363
	NDE 786	10/18/2000	<1.7	--	--	0.402	--	--	--	0.441
92-05	NDK 414	10/30/2000	<1.7	9.4	42.6	0.0059	--	--	--	<0.0013
92-06	NDK 411	10/30/2000	<1.7	11.3	0.84	<0.0001	<0.52	--	<0.1	<0.0013
92-07	NDE 768	01/12/2000	<0.88	10.9	2.53	0.788	--	--	--	0.366
	NDE 881	04/18/2000	<1.5	8.7	0.83	0.593	--	--	--	0.302
	NDE 782	07/27/2000	<2.6	16.3	3.84	0.603	--	--	--	0.327
	NDK 404	10/18/2000	<1.7	13.2	1.43	0.709	--	--	--	0.394
92-08	NDE 763	01/10/2000	<0.88	9.5	6.36	0.467	--	--	--	<0.0010
	NDE 764	01/10/2000	<0.88	--	--	0.464	--	--	--	0.0019
	NDE 843	04/13/2000	<1.5	9.8	1.79	0.337	--	--	--	0.0013

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDK 430	07/26/2000	270	<0.0003	0.281	265	69.5	0.13	1998	<0.0091	0.286	~106.84
	NDM 452	11/02/2000	261	<0.0002	0.311	312	81.8	3.43	2190	<0.0117	0.272	~146.09
92-09	NDE 837	04/12/2000	356	0.0012	0.341	342	105	0.47	2610	1.570	<0.012	~145.88
	NDE 893	10/31/2000	347	0.0018	0.357	341	110	--	2540	1.730	0.187	~125.95
92-10	NDE 885	04/19/2000	191	<0.0002	<0.0635	64.0	5.99	1.41	590	0.397	0.153	<3.61
	NDE 892	10/31/2000	182	<0.0002	<0.0665	80.7	18.2	--	720	0.564	0.172	<8.53
92-11	NDE 771	01/12/2000	396	0.0179	0.523	357	207	1.29	3370	<0.0089	0.467	341.99
	NDE 884	04/18/2000	312	0.0181	0.556	358	208	0.93	3110	<0.0074	0.408	282.04
	NDK 441	08/02/2000	377	0.0143	0.660	385	221	0.4	5270	<0.0091	0.447	185.63
	NDK 442	08/02/2000	377	0.0142	0.674	388	223	0.4	5270	<0.0091	0.703	228.08
	NDM 477	11/02/2000	307	0.0161	0.458	297	149	--	2600	<0.0117	0.441	126.43
92-12	NDE 883	04/18/2000	286	0.00029	<0.0635	36.6	3.38	--	801	<0.0074	0.432	<5.97
	NDM 478	11/02/2000	293	0.00039	<0.0665	36.1	3.97	--	8000	<0.0117	0.432	<8.93
92-13	NDK 413	10/30/2000	275	0.0406	<0.0665	7.06	4.50	--	649	<0.0117	1.220	<8.99
93-01	NDK 420	11/01/2000	700	0.001	<0.0665	67.6	2.42	5.5	584	0.0468	0.137	<7.63
95-01	NDE 875	04/10/2000	213	0.0035	<0.0635	48.1	8.18	0.57	6730	0.805	0.260	<2.50[b]
	NDE 773	04/10/2000	--	0.0032	<0.0635	47.7	8.32	--	--	0.782	0.251	~3.26
	NDE 898	11/01/2000	175	0.0026	<0.0665	42.2	7.03	6.4	610	0.644	0.276	<7.75
95-02	NDE 896	11/01/2000	180	0.00057	<0.0665	39.2	6.02	0	600	0.488	0.258	<7.54
	NDE 897	11/01/2000	--	0.00063	<0.0665	39.4	6.17	--	--	0.581	0.269	<7.54
95-03	NDE 774	04/10/2000	234	<0.0002	0.278	151	67.8	0.57	1519	1.320	0.243	~10.5
	NDE 889	10/31/2000	225	<0.0002	0.307	147	73.6	--	1490	1.280	<0.0125	<8.22[b]
95-04	NDE 890	10/31/2000	240	0.00096	0.332	161	74.8	--	1580	1.410	<0.0125	<8.51[b]
	NDE 891	10/31/2000	--	0.001	0.334	162	74.7	--	--	1.410	0.176	<8.55[b]
95-06	NDE 886	04/19/2000	321	<0.0002	0.185	235	112	--	2270	0.248	0.124	61.11
	NDK 418	10/31/2000	353	0.00033	0.216	229	110	--	2220	1.440	0.136	~47.13
95-07	NDK 419	10/31/2000	1046	0.00052	0.201	17.7	26.8	--	2350	0.0959	2.670	<11.25[b]
95-08	NDK 415	10/31/2000	286	0.00021	<0.0665	28.1	5.78	2.3	595	<0.0117	0.813	<8.13
	NDK 416	10/31/2000	--	0.00049	<0.0665	28.2	5.88	--	--	<0.0117	0.842	<8.06
AEC 6	NDE 779	07/27/2000	136	0.0022	<0.0665	28.5	1.76	0.1	351	0.0478	0.0851	<3.56[b]
	NDE 780	07/27/2000	--	0.0021	<0.0665	28.3	2.12	--	--	0.040	0.106	<3.58[b]
GB1126T	NDE 836	01/14/2000	--	0.0014	--	140	--	--	--	<0.0089	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDK 430	07/26/2000	81.23	11.3	55.0	0.456	0.0337	134	--	--	--	--	--
	NDM 452	11/02/2000	82.93	12.1	61.5	0.777	0.0456	134	--	--	--	--	--
92-09	NDE 837	04/12/2000	85.43	1.29	88.7	0.145	0.0027	186	--	--	--	--	--
	NDE 893	10/31/2000	82.7	1.59	84.4	0.181	0.0023	191	--	--	--	--	--
92-10	NDE 885	04/19/2000	<3.20	2.73	11.3	0.310	<0.0004	46.1	--	--	--	--	--
	NDE 892	10/31/2000	<7.50	2.84	13.7	0.365	0.0011	56.0	--	--	--	--	--
92-11	NDE 771	01/12/2000	130.59	25.6	94.9	2.040	0.0843	306	--	--	--	--	--
	NDE 884	04/18/2000	166.09	20.7	90.7	1.210	0.0548	284	--	--	--	--	--
	NDK 441	08/02/2000	185.71	19.8	96.8	1.520	0.0561	267	--	--	--	--	--
	NDK 442	08/02/2000	189.75	20.3	98.8	1.540	0.0574	272	--	--	--	--	--
	NDM 477	11/02/2000	91.06	17.3	72.9	0.0773	0.043	249	--	--	--	--	--
92-12	NDE 883	04/18/2000	<6.25	3.52	10.8	0.0023	0.0271	128	--	--	--	--	--
	NDM 478	11/02/2000	7.56	3.38	10.8	<0.002	0.0257	124	--	--	--	--	--
92-13	NDK 413	10/30/2000	<7.54	2.35	1.85	<0.002	0.0756	145	--	--	--	--	--
93-01	NDK 420	11/01/2000	<7.40	2.23	10.9	0.393	0.0013	38.2	--	--	--	--	--
95-01	NDE 875	04/10/2000	4.77	3.14	13.9	0.336	<0.0004	79.0	--	--	--	--	--
	NDE 773	04/10/2000	4.75	3.13	13.8	0.342	<0.0004	79.5	--	--	--	--	--
	NDE 898	11/01/2000	<7.45	2.98	11.7	0.237	0.00042	73.0	--	--	--	--	--
95-02	NDE 896	11/01/2000	<7.42	2.95	11.2	0.217	0.00032	72.6	--	--	--	--	--
	NDE 897	11/01/2000	8.94	2.92	11.3	0.213	<0.0003	73.5	--	--	--	--	--
95-03	NDE 774	04/10/2000	9.81	3.17	53.3	0.368	0.0055	111	--	--	--	--	--
	NDE 889	10/31/2000	9.91	3.40	53.1	0.366	0.0064	110	--	--	--	--	--
95-04	NDE 890	10/31/2000	10.26	3.59	54.9	0.439	0.0062	122	--	--	--	--	--
	NDE 891	10/31/2000	11.31	3.50	54.9	0.430	0.006	121	--	--	--	--	--
95-06	NDE 886	04/19/2000	27.19	7.64	65.5	0.481	0.0065	241	--	--	--	--	--
	NDK 418	10/31/2000	24.25	7.17	62.6	0.688	0.003	229	--	--	--	--	--
95-07	NDK 419	10/31/2000	13.19	6.82	8.50	0.0898	0.0035	563	--	--	--	--	--
95-08	NDK 415	10/31/2000	<7.47	3.57	8.93	0.0449	<0.0003	94.0	--	--	--	--	--
	NDK 416	10/31/2000	<7.46	3.45	8.76	0.0454	<0.0003	93.9	--	--	--	--	--
AEC 6	NDE 779	07/27/2000	<4.93	2.08	8.24	0.0965	<0.0003	32.6	--	--	--	--	--
	NDE 780	07/27/2000	<4.94	2.08	8.16	0.0964	<0.0003	32.8	--	--	--	--	--
GB1126T	NDE 836	01/14/2000	--	0.786	82.8	0.530	0.020	225	--	--	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDK 430	07/26/2000	--	3.520	102	<0.27	6.92	<0.78	<4.14	499.17	0.0544	793	1630
	NDM 452	11/02/2000	--	2.580	161	<0.36	6.7	<0.65	<3.45	1077.39	0.0307	876	1780
92-09	NDE 837	04/12/2000	--	<0.0324	54	<0.28	6.91	<0.43	--	230.73	<0.0002	1010	2140
	NDE 893	10/31/2000	--	<0.0324[b]	-52	<0.27	7.35	<0.84	<4.17	394.64	<0.0001	986	2070
92-10	NDE 885	04/19/2000	--	<0.0324	53	<0.26	7.57	<1.06	--	205.96	<0.0002	105	345
	NDE 892	10/31/2000	--	<0.0324[b]	-109	<0.29	7.76	1.33	<4.27	199.02	<0.0001	155	453
92-11	NDE 771	01/12/2000	--	~15.500	147	0.28	--	<0.75	--	888.88	0.104	1190	2780
	NDE 884	04/18/2000	--	22.100	102	<0.26	6.54	<0.51	--	559.96	0.142	1100	2480
	NDK 441	08/02/2000	--	16.200	212	<0.25	6.57	<0.83	<4.26	1045.3	0.133	1220	2700
	NDK 442	08/02/2000	--	16.200	212	<0.35	6.57	<0.79	<4.14	1028.01	0.135	1230	2700
	NDM 477	11/02/2000	--	~23.300	160	<0.28	6.54	<0.83	<4.29	956.73	0.122	966	2090
92-12	NDE 883	04/18/2000	--	0.679	90	<0.26	7.58	<0.47	--	83.64	0.0022	104	172
	NDM 478	11/02/2000	--	~0.735	164	<0.28	7.74	<0.88	<4.32	88.4	0.0027	101	525
92-13	NDK 413	10/30/2000	--	~2.710	109	<0.29	9.64	<0.72	<3.75	99.66	0.0022	36.3	458
93-01	NDK 420	11/01/2000	--	<0.0324	83	<0.31	7.21	<0.68	<3.64	137.54	<0.0001	102	380
95-01	NDE 875	04/10/2000	--	<0.0324	48	0.43	7	1.66	--	2061.59	<0.0002	114	410
	NDE 773	04/10/2000	--	<0.0324	--	0.51	--	1.63	--	2253.82	<0.0002	114	408
	NDE 898	11/01/2000	--	<0.0324[b]	-89	0.7	7.35	1.4	<4.29	3564.11	<0.0001	117	385
95-02	NDE 896	11/01/2000	--	<0.0324[b]	-85	<0.28	7.14	<0.83	<4.19	227.42	<0.0001	114	378
	NDE 897	11/01/2000	--	<0.0324[b]	--	<0.28	--	0.93	<4.32	227.64	<0.0001	115	350
95-03	NDE 774	04/10/2000	--	<0.0324	23	<0.27	6.92	1.78	--	90.61	<0.0002	478	1080
	NDE 889	10/31/2000	--	<0.0324[b]	-84	<0.26	7.16	1.81	<3.83	247.12	<0.0001	488	1090
95-04	NDE 890	10/31/2000	--	<0.0324[b]	-95	<0.27	7.02	1.93	<3.88	56.88	<0.0001	515	1170
	NDE 891	10/31/2000	--	<0.0324[b]	--	<0.29	--	1.37	<4.43	44.01	<0.0001	515	1180
95-06	NDE 886	04/19/2000	--	<0.0324	47	<0.25	7.14	<0.88	--	86.22	<0.0002	823	1720
	NDK 418	10/31/2000	--	0.0385	-61	<0.31	7.33	<0.98	<5.19	80.38	<0.0001	821	1720
95-07	NDK 419	10/31/2000	--	<0.0324	-85	<0.31	7.81	1.33	<4.01	72.03	<0.0001	6.63	1530
95-08	NDK 415	10/31/2000	--	<0.0324	101	<0.28	7.75	<0.69	<3.69	141.06	<0.0001	34.3	365
	NDK 416	10/31/2000	--	<0.0324	--	<0.28	--	0.89	<3.52	146.49	<0.0001	34.4	363
AEC 6	NDE 779	07/27/2000	--	<0.0324	-275	<0.27	8.98	<0.78	<4.10	172.58	<0.0001	40.6	233
	NDE 780	07/27/2000	--	<0.0324	--	<0.26	--	0.81	<4.14	151.32	<0.0001	41.2	237
GB1126T	NDE 836	01/14/2000	--	--	--	--	--	--	--	--	<0.00010	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDK 430	07/26/2000	<2.6	11.2	1.14	0.227	--	--	--	<0.0013
	NDM 452	11/02/2000	<1.7	11.6	0.86	0.276	--	--	--	0.0015
92-09	NDE 837	04/12/2000	<1.5	8.8	1.22	0.271	--	--	--	<0.0004
	NDE 893	10/31/2000	<1.7	11.9	20.9	0.283	--	--	--	<0.0013
92-10	NDE 885	04/19/2000	<1.5	9.3	3.67	<0.00010	<1.10	--	<0.1	<0.0004
	NDE 892	10/31/2000	<1.7	10	1.68	<0.0001	<0.52	--	<0.1	<0.0013
92-11	NDE 771	01/12/2000	<0.88	11.5	1.03	0.677	--	--	--	0.625
	NDE 884	04/18/2000	<1.5	9.8	0.95	0.492	--	--	--	0.574
	NDK 441	08/02/2000	<2.6	13.7	1.34	0.566	--	--	--	0.560
	NDK 442	08/02/2000	<2.6	13.7	1.34	0.557	--	--	--	0.560
	NDM 477	11/02/2000	<1.7	12.6	1.55	0.270	--	--	--	0.578
92-12	NDE 883	04/18/2000	<1.5	10.8	104	<0.0001	<1.1	--	0.89	0.0005
	NDM 478	11/02/2000	<1.7	10.1	534	0.002	<0.52	--	0.76	<0.0013
92-13	NDK 413	10/30/2000	<1.7	11.2	5.66	0.0022	6.5	--	0.88	0.0023
93-01	NDK 420	11/01/2000	<1.7	9.5	2.18	<0.0001	<0.52	--	<0.1	<0.0013
95-01	NDE 875	04/10/2000	<1.5	9.2	2.12	0.0037	<1.1	--	1.5	0.0035
	NDE 773	04/10/2000	<1.5	--	--	0.0039	<1.1	--	1.6	0.0036
	NDE 898	11/01/2000	<1.7	12.3	4.98	0.0026	<0.52	--	1.2	<0.0013
95-02	NDE 896	11/01/2000	<1.7	12.1	4.99	0.00025	<0.52	--	0.13	<0.0013
	NDE 897	11/01/2000	<1.7	--	--	0.00021	<0.52	--	0.11	<0.0013
95-03	NDE 774	04/10/2000	<1.5	9	4.44	0.0078	<1.1	--	3.3	<0.00040
	NDE 889	10/31/2000	<1.7	11.7	10.2	0.0081	<0.52	--	2.9	<0.0013
95-04	NDE 890	10/31/2000	<1.7	10.9	3.27	0.0048	<0.52	--	2	<0.0013
	NDE 891	10/31/2000	<1.7	--	--	0.0052	<0.52	--	2	<0.0013
95-06	NDE 886	04/19/2000	<1.5	12.1	15.4	0.0643	46.3	--	26.9	<0.0004
	NDK 418	10/31/2000	<1.7	11.9	17.6	0.0572	26.7	--	22.1	<0.0013
95-07	NDK 419	10/31/2000	<1.7	11.9	476	0.0021	2.8	--	1.1	<0.0013
95-08	NDK 415	10/31/2000	<1.7	12.4	4.3	<0.0001	1.1	--	<0.1	<0.0013
	NDK 416	10/31/2000	<1.7	--	--	0.00012	1.2	--	<0.1	<0.0013
AEC 6	NDE 779	07/27/2000	<2.6	14.8	8.35	<0.00010	<0.17	<0.10	<0.12	<0.0013
	NDE 780	07/27/2000	<2.6	--	--	<0.00010	<0.12	<0.09	<0.10	<0.0013
GB1126T	NDE 836	01/14/2000	--	--	--	0.158	--	--	--	0.0622

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDG 421	04/18/2000	--	0.0056	--	291	--	--	--	0.152	--	--
GB3127T	NDG 420	04/18/2000	--	0.00024	--	695	--	--	--	0.140	--	--
MW00-01	NDK 436	08/01/2000	254	<0.0003	0.0928	251	11.9	3.94	2390	<0.0091	0.150	<12.24
	NDK 423	11/01/2000	258	<0.0002	0.095	255	10.1	4.8	1461	<0.0117	0.148	<8.27[b]
MW00-02	NDK 437	08/02/2000	254	<0.0003	0.0887	366	6.50	2.58	3290	<0.0091	0.166	<11.05
	NDK 422	11/01/2000	294	<0.0002	0.0712	414	7.99	4.3	2200	<0.0117	0.130	<13.85[b]
MW00-04	NDK 445	08/02/2000	--	0.00089	--	301	--	1.49	3655	2.120	--	--
	NDJ 863	11/02/2000	289	<0.0002	--	356	--	--	4100	<0.0117	--	--
MW00-06	NDK 439	08/02/2000	172	0.0029	1.620	208	51.1	0.7	3030	<0.0091	0.363	87.08
	NDK 424	11/01/2000	172	0.0041	0.779	273	104	--	2940	<0.0117	0.354	~274.91
MW00-07	NDK 440	08/02/2000	181	0.0019	0.309	212	35.0	1.54	2720	<0.0091	0.305	76.15
P92-02	NDE 838	04/12/2000	410	<0.0002	0.564	381	201	1.45	2490	0.845	0.277	~28.46
	NDE 894	10/31/2000	428	0.00024	0.540	393	175	0.6	3180	0.978	0.315	~19.86
P92-03	NDE 839	04/12/2000	383	<0.0002	0.386	325	123	1.74	2770	0.596	<0.012	~46.23
	NDE 895	10/31/2000	--	0.00025	0.491	358	155	--	2510	1.310	0.317	~53.08
P92-04	NDE 762	01/10/2000	388	<0.0004	0.503	277	136	5.48	2350	<0.0089	0.317	18.68
	NDE 845	04/13/2000	399	<0.0002	0.543	248	141	2.14	2190	<0.0074	0.327	~9.8
	NDK 428	07/26/2000	375	<0.0003	0.620	250	158	4.4	2100	<0.0091	0.384	~20.11
	NDE 899	11/01/2000	331	<0.0002	0.395	344	156	3.6	1640	<0.0117	0.288	<14.96[b]
P92-05	NDE 765	01/11/2000	--	<0.0004	--	345	189	--	3300	<0.0089	0.538	--
	NDE 844	04/13/2000	315	<0.0002	0.460	341	201	--	2880	<0.0074	0.596	<10.98[b]
	NDK 427	07/26/2000	380	<0.0003	0.474	342	216	1.52	2800	0.034	0.742	~22.57
P92-06	NDE 767	01/12/2000	423	<0.0004	0.965	587	229	2.7	4970	<0.0089	0.180	650.16
	NDE 841	04/13/2000	347	<0.0002	0.804	485	215	2.83	4440	<0.0074	0.192	~644.6
	NDE 842	04/13/2000	--	<0.0002	0.879	486	225	--	--	<0.0074	0.188	~725.38
	NDK 429	07/26/2000	345	<0.0003	1.000	477	212	3.49	4250	<0.0091	0.219	~608.62
	NDM 451	11/02/2000	374	<0.0002	1.020	455	201	5.4	4180	<0.0117	0.205	~319.18
P92-07	NDE 772	01/12/2000	--	<0.0004	--	276	--	5.48	2760	<0.0089	--	--
	NDE 847	04/14/2000	--	<0.0002	0.664	276	182	--	2610	0.0082	0.319	~37.83
	NDK 444	08/02/2000	--	<0.0003	0.684	256	172	2.33	3930	<0.0091	0.390	--
P92-09	NDE 766	01/11/2000	600	<0.0004	0.471	217	105	2.47	2710	<0.0089	0.466	25.57
	NDE 846	04/13/2000	575	0.00028	0.433	226	112	3.85	2720	<0.0074	0.491	~18.13
	NDE 784	07/28/2000	441	<0.0003	0.829	243	146	4.1	1820	<0.0091	0.492	41.8

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDG 421	04/18/2000	--	2.65	118	1.270	0.225	788	--	--	--	--	--
GB3127T	NDG 420	04/18/2000	--	5.48	84.8	0.240	0.0046	189	--	--	--	--	--
MW00-01	NDK 436	08/01/2000	<10.53	2.41	43.7	0.0023	0.0023	38.2	--	--	--	--	--
	NDK 423	11/01/2000	<7.43	2.42	42.5	<0.002	0.0013	34.5	--	--	--	--	--
MW00-02	NDK 437	08/02/2000	<11.88	2.46	69.8	0.0727	0.0025	41.3	--	--	--	--	--
	NDK 422	11/01/2000	<13.12	2.71	78.7	0.0086	0.0021	43.8	--	--	--	--	--
MW00-04	NDK 445	08/02/2000	--	20.5	78.4	7.530	0.245	496	--	--	--	--	--
	NDJ 863	11/02/2000	--	19.2	98.3	8.090	0.296	579	--	--	--	--	--
MW00-06	NDK 439	08/02/2000	61.31	11.6	55.5	0.0696	0.0431	145	--	--	--	--	--
	NDK 424	11/01/2000	110.68	18.4	71.1	0.0536	0.0436	330	--	--	--	--	--
MW00-07	NDK 440	08/02/2000	53.3	11.0	51.1	0.0064	0.0427	103	--	--	--	--	--
P92-02	NDE 838	04/12/2000	<13.51	1.86	153	0.184	0.0033	244	--	--	--	--	--
	NDE 894	10/31/2000	18.25	1.85	146	0.191	0.0024	229	--	--	--	--	--
P92-03	NDE 839	04/12/2000	28.31	2.89	97.9	0.234	0.0118	219	--	--	--	--	--
	NDE 895	10/31/2000	34.61	3.66	101	0.235	0.0135	222	--	--	--	--	--
P92-04	NDE 762	01/10/2000	22.85	2.09	93.2	<0.0009	<0.0004	148	--	--	--	--	--
	NDE 845	04/13/2000	<8.13	2.09	86.5	<0.0004	<0.00040	142	--	--	--	--	--
	NDK 428	07/26/2000	<12.04	1.84	80.3	<0.0015	<0.0003	137	--	--	--	--	--
	NDE 899	11/01/2000	<13.24	2.13	116	<0.002	<0.0003	153	--	--	--	--	--
P92-05	NDE 765	01/11/2000	--	3.33	112	0.0446	<0.0004	223	--	--	--	--	--
	NDE 844	04/13/2000	10.27	3.34	100	0.0023	<0.0004	211	--	--	--	--	--
	NDK 427	07/26/2000	<14.33	5.28	90.9	0.010	<0.0003	258	--	--	--	--	--
P92-06	NDE 767	01/12/2000	170.73	6.84	134	0.0025	0.0176	526	--	--	--	--	--
	NDE 841	04/13/2000	250.34	7.33	123	<0.0004	0.0199	518	--	--	--	--	--
	NDE 842	04/13/2000	254.85	7.25	121	<0.0004	0.019	511	--	--	--	--	--
	NDK 429	07/26/2000	236.83	7.21	126	<0.0015	0.0188	499	--	--	--	--	--
	NDM 451	11/02/2000	141.81	7.56	124	<0.002	0.0193	459	--	--	--	--	--
P92-07	NDE 772	01/12/2000	--	1.90	75.5	0.017	0.00044	240	--	--	--	--	--
	NDE 847	04/14/2000	19.79	1.87	73.6	0.0129	0.0035	245	--	--	--	--	--
	NDK 444	08/02/2000	--	1.66	67.5	0.0058	0.0029	234	--	--	--	--	--
P92-09	NDE 766	01/11/2000	21.1	1.45	113	0.0201	0.018	269	--	--	--	--	--
	NDE 846	04/13/2000	19.76	1.29	117	0.0155	0.0151	267	--	--	--	--	--
	NDE 784	07/28/2000	22.92	1.31	121	<0.0015	0.014	276	--	--	--	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDG 421	04/18/2000	--	--	--	--	--	--	--	--	0.010	--	--
GB3127T	NDG 420	04/18/2000	--	--	--	--	--	--	--	--	0.0418	--	--
MW00-01	NDK 436	08/01/2000	--	0.892	215	<0.25	6.81	<0.80	<4.22	845.45	0.0018	598	1200
	NDK 423	11/01/2000	--	0.555	170	<0.33	6.82	<0.68	<3.62	812.04	0.0011	575	1150
MW00-02	NDK 437	08/02/2000	--	0.404	163	<0.26	6.83	<0.83	<4.11	1427.08	0.0017	1020	1790
	NDK 422	11/01/2000	--	0.703	150	<0.32	6.55	<0.73	<3.80	1134.61	0.0018	1070	1940
MW00-04	NDK 445	08/02/2000	--	--	-35	--	7.29	--	--	--	0.00046	--	--
	NDJ 863	11/02/2000	--	--	197	--	7.03	--	--	--	0.0018	--	--
MW00-06	NDK 439	08/02/2000	--	~2.340	-68	<0.26	6.63	<0.78	<4.12	617.34	0.0032	818	1540
	NDK 424	11/01/2000	--	22.300	164	<0.34	6.73	<0.69	<3.46	683.05	0.014	1220	2390
MW00-07	NDK 440	08/02/2000	--	2.080	180	<0.26	6.69	<0.79	<4.17	715.74	0.0078	725	1390
P92-02	NDE 838	04/12/2000	--	0.0554	39	<0.28	6.9	<0.33	--	34.47	0.0013	1340	2810
	NDE 894	10/31/2000	--	<0.0324[b]	-28	<0.28	7.17	<0.85	<4.32	107.53	0.0012	1270	2680
P92-03	NDE 839	04/12/2000	--	0.140	27	<0.27	6.97	<0.47	--	396.69	0.0066	1040	2260
	NDE 895	10/31/2000	--	~0.0611	-35	<0.28	7.01	<0.84	<4.29	548.75	0.0037	1060	2300
P92-04	NDE 762	01/10/2000	--	~1.640	69	0.38	--	<0.34	--	541.6	0.0024	702	1860
	NDE 845	04/13/2000	--	1.420	51	<0.32	6.72	<0.41	--	429.71	0.0026	591	1630
	NDK 428	07/26/2000	--	3.360	106	<0.25	6.97	<0.82	<4.23	625.7	0.0021	630	1610
	NDE 899	11/01/2000	--	~3.570	60	<0.29	6.82	<0.88	<4.32	593.88	0.0062	999	2140
P92-05	NDE 765	01/11/2000	--	~1.960	183	--	6.68	--	--	--	0.052	1140	--
	NDE 844	04/13/2000	--	2.940	81	<0.34	6.84	<0.31	--	--	0.0566	1110	~2290
	NDK 427	07/26/2000	--	0.703	-61	<0.26	6.14	<0.82	<4.33	790.3	0.0028	1100	2360
P92-06	NDE 767	01/12/2000	--	~28.300	195	0.67	--	<0.33	--	1272.44	0.029	2170	~4560
	NDE 841	04/13/2000	--	20.900	85	<0.50	6.91	<0.37	--	716.82	0.040	1860	3910
	NDE 842	04/13/2000	--	20.700	--	0.55	--	<0.42	--	711.71	0.039	1830	3870
	NDK 429	07/26/2000	--	18.600	104	<0.26	6.83	<0.81	<4.15	1224.24	0.0304	1920	3920
	NDM 451	11/02/2000	--	20.300	191	<0.33	6.73	<0.68	<3.61	230.82	0.0269	1860	3650
P92-07	NDE 772	01/12/2000	--	--	132	--	--	--	--	--	0.00088	--	--
	NDE 847	04/14/2000	--	2.840	88	--	6.89	<0.67	--	127.29	0.00093	701	~1990
	NDK 444	08/02/2000	--	5.070	14	--	6.8	<0.77	<4.08	139.04	0.0014	772	1920
P92-09	NDE 766	01/11/2000	--	~9.720	9	0.43	--	<0.42	--	783.26	0.009	740	~2040
	NDE 846	04/13/2000	--	8.830	59	<0.31	6.87	<0.50	--	457.35	0.0078	814	2160
	NDE 784	07/28/2000	--	8.650	-25	<0.27	6.82	<0.83	<4.41	642.83	0.0108	971	2340

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDG 421	04/18/2000	<1.5	--	--	2.670	--	--	--	2.560
GB3127T	NDG 420	04/18/2000	<1.5	--	--	0.122	--	--	--	0.0027
MW00-01	NDK 436	08/01/2000	<2.6	12.5	1.67	0.0046	--	--	--	<0.0013
	NDK 423	11/01/2000	<1.7	9.2	0.98	0.0042	--	--	--	<0.0013
MW00-02	NDK 437	08/02/2000	<2.6	11	3.7	0.0055	--	--	--	<0.0013
	NDK 422	11/01/2000	<1.7	9.2	0.51	0.010	--	--	--	<0.0013
MW00-04	NDK 445	08/02/2000	--	19.3	13.3	0.119	--	--	--	<0.0013
	NDJ 863	11/02/2000	<1.7	13.8	79.2	1.080	--	--	--	<0.0013
MW00-06	NDK 439	08/02/2000	<2.6	11.6	13.2	0.152	--	--	--	0.146
	NDK 424	11/01/2000	<1.7	11	334	0.379	--	--	--	0.173
MW00-07	NDK 440	08/02/2000	4.3	10.5	3.37	0.154	--	--	--	0.0741
P92-02	NDE 838	04/12/2000	<1.5	10	1.23	0.0659	--	--	--	<0.0004
	NDE 894	10/31/2000	<1.7	11.4	1.23	0.0621	--	--	--	<0.0013
P92-03	NDE 839	04/12/2000	<1.5	8.6	1.77	0.104	--	--	--	0.00077
	NDE 895	10/31/2000	<1.7	11.4	19.7	0.113	--	--	--	<0.0013
P92-04	NDE 762	01/10/2000	<0.88	9.4	0.47	0.037	--	--	--	<0.001
	NDE 845	04/13/2000	<1.5	11.3	3.43	0.0321	--	--	--	<0.0004
	NDK 428	07/26/2000	<2.6	13.2	1.31	0.0313	--	--	--	<0.0013
	NDE 899	11/01/2000	<1.7	10.6	4.85	0.0331	--	--	--	<0.0013
P92-05	NDE 765	01/11/2000	<0.88	6	25.1	0.0368	--	--	--	0.0017
	NDE 844	04/13/2000	<1.5	7.7	34.2	0.0281	--	--	--	0.00099
	NDK 427	07/26/2000	<2.6	16	4.17	0.0343	--	--	--	<0.0013
P92-06	NDE 767	01/12/2000	<0.88	9	>1000	1.080	--	--	--	<0.001
	NDE 841	04/13/2000	<1.5	8.1	1.66	0.895	--	--	--	<0.0004
	NDE 842	04/13/2000	<1.5	--	--	0.885	--	--	--	<0.0004
	NDK 429	07/26/2000	<2.6	10	1.58	0.697	--	--	--	<0.0013
	NDM 451	11/02/2000	<1.7	10.2	4.75	0.546	--	--	--	<0.0013
P92-07	NDE 772	01/12/2000	<0.88	7.6	166	0.0686	--	--	--	0.0081
	NDE 847	04/14/2000	<1.5	10.1	>1000	0.0856	--	--	--	<0.0004
	NDK 444	08/02/2000	<2.6	13.6	>1000	0.0663	--	--	--	<0.0013
P92-09	NDE 766	01/11/2000	<0.88	9.1	2.15	0.060	--	--	--	0.0017
	NDE 846	04/13/2000	<1.5	8.7	1.07	0.0555	--	--	--	<0.0004
	NDE 784	07/28/2000	<2.6	11.3	0.55	0.0549	--	--	--	<0.0013

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDE 900	11/01/2000	511	<0.0002	0.748	256	138	--	660	<0.0117	0.508	~28.92
PW-17	NDK 318	04/13/2000	--	0.0029	--	--	--	--	--	--	--	--
	NDJ 165	08/15/2000	403	0.0054	--	--	--	--	3590	--	--	--
	NDM 412	10/18/2000	--	0.0078	--	452	109	--	--	0.101	0.332	--
PW-28	NDM 416	10/18/2000	360	0.002	--	444	225	2.3	3560	<0.0117	0.429	--
PW99-16	NDM 417	10/18/2000	405	0.0034	--	430	221	1.2	3490	<0.0117	0.415	--
R1-M1	NDJ-451	01/10/2000	283	0.0094	--	--	--	0.44	3180	--	--	--
	NDK 314	04/13/2000	225	0.0087	--	--	--	0.28	4480	--	--	--
	NDK 315	04/13/2000	--	0.0087	--	--	--	--	--	--	--	--
	NDK 798	08/16/2000	206	0.0121	--	--	--	0.45	4400	--	--	--
	NDK 393	10/17/2000	263	0.0136	--	--	--	0.26	2940	--	--	--
	NDK 394	10/17/2000	--	0.0129	--	--	--	--	--	--	--	--
R1-M2	NDJ-312	01/11/2000	280	0.0112	--	303	151	0.74	3130	<0.0089	--	--
	NDJ 382	04/11/2000	240	0.0086	--	259	121	0.85	4800	<0.0074	--	--
	NDK 366	08/16/2000	230	0.0119	--	253	82.7	0.2	2930	<0.0091	--	--
	NDK 391	10/17/2000	302	0.0133	--	275	85.1	0.22	2880	<0.0116	--	--
R1-M3	NDJ-318	01/11/2000	303	0.010	--	322	172	0.64	3220	<0.0089	--	--
	NDJ 388	04/11/2000	255	0.0076	--	281	146	0.7	4950	<0.0074	--	--
	NDK 320	08/16/2000	241	0.0098	--	216	85.7	0.16	2540	<0.0091	--	--
	NDK 327	08/16/2000	241	0.010	--	215	85.4	0.16	2540	<0.0091	--	--
	NDK 392	10/17/2000	290	0.0127	--	266	114	0.35	2580	<0.0116	--	--
R1-M4	NDJ-338	01/11/2000	384	0.0063	--	410	207	0.52	3290	--	--	--
	NDJ 358	04/11/2000	319	0.0056	--	303	214	0.45	3300	--	--	--
	NDK 357	08/15/2000	284	0.0066	--	273	126	0.54	4330	<0.0091	--	--
	NDM 237	10/16/2000	300	0.0073	--	277	121	1.4	2690	<0.0116	--	--
R1-M5	NDJ-465	01/12/2000	391	0.0058	--	--	--	0.32	3080	--	--	--
	NDJ-155	01/12/2000	--	0.0058	--	--	--	--	--	--	--	--
	NDJ 393	04/12/2000	330	0.0051	--	340	193	0.5	4680	<0.0074	--	--
	NDK 351	08/15/2000	413	0.0053	--	291	138	0.88	4540	<0.0091	--	--
	NDM 226	10/16/2000	336	0.0058	--	295	128	1.4	2780	<0.0116	--	--
R1-M6	NDM 414	10/18/2000	480	0.0059	--	--	--	0.28	2720	--	--	--
R2-M1	NDJ-310	01/11/2000	107	<0.0004	--	--	--	0.16	2570	--	--	--
	NDK 312	04/12/2000	--	<0.0002	--	--	--	0.09	5040	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDE 900	11/01/2000	15.82	1.52	122	0.0365	0.015	286	--	--	--	--	--
PW-17	NDK 318	04/13/2000	--	--	--	--	0.124	--	--	--	--	--	--
	NDJ 165	08/15/2000	--	--	--	--	0.0861	--	--	--	--	--	--
	NDM 412	10/18/2000	--	32.2	109	0.420	0.0949	485	--	--	--	--	--
PW-28	NDM 416	10/18/2000	--	13.5	130	0.0446	0.0222	300	--	--	--	--	--
PW99-16	NDM 417	10/18/2000	--	24.3	125	<0.0020	0.0258	295	--	--	--	--	--
R1-M1	NDJ-451	01/10/2000	--	--	--	--	~0.096	--	--	--	--	--	--
	NDK 314	04/13/2000	--	--	--	--	0.0776	--	--	--	--	--	--
	NDK 315	04/13/2000	--	--	--	--	0.0721	--	--	--	--	--	--
	NDK 798	08/16/2000	--	--	--	--	0.0838	--	--	--	--	--	--
	NDK 393	10/17/2000	--	--	--	--	0.0908	--	--	--	--	--	--
	NDK 394	10/17/2000	--	--	--	--	0.0962	--	--	--	--	--	--
R1-M2	NDJ-312	01/11/2000	--	23.6	77.3	0.845	0.0849	367	0.808	--	<0.028	--	98.200
	NDJ 382	04/11/2000	--	20.2	67.4	0.765	~0.0732	294	~0.955	--	--	<0.0272	--
	NDK 366	08/16/2000	--	21.4	62.3	0.681	0.0804	316	--	0.716	--	0.183	--
	NDK 391	10/17/2000	--	23.6	66.5	0.789	0.094	326	--	0.686	--	<0.0272	--
R1-M3	NDJ-318	01/11/2000	--	21.4	83.3	0.560	0.0702	353	0.723	--	<0.028	--	93.200
	NDJ 388	04/11/2000	--	17.8	73.0	0.376	~0.0549	285	0.525	--	--	<0.0272	--
	NDK 320	08/16/2000	--	18.8	53.3	0.293	0.0683	275	--	0.366	--	<0.027	--
	NDK 327	08/16/2000	--	19.1	53.8	0.284	0.0675	278	--	0.366	--	<0.027	--
	NDK 392	10/17/2000	--	20.9	62.3	0.386	0.0738	271	--	0.380	--	<0.0136	--
R1-M4	NDJ-338	01/11/2000	--	14.5	108	--	~0.0356	326	0.0099	--	<0.028	--	66.000
	NDJ 358	04/11/2000	--	10.5	83.5	--	~0.0248	245	0.0318	--	--	<0.0272	--
	NDK 357	08/15/2000	--	13.3	70.7	0.0067	0.0399	291	--	0.0318	--	<0.027	--
	NDM 237	10/16/2000	--	14.0	67.9	0.0174	0.0475	284	--	0.0282	--	<0.0136	--
R1-M5	NDJ-465	01/12/2000	--	--	--	--	0.0378	--	--	--	--	--	--
	NDJ-155	01/12/2000	--	--	--	--	0.0328	--	--	--	--	--	--
	NDJ 393	04/12/2000	--	9.70	87.6	0.0086	0.0267	230	--	--	--	--	--
	NDK 351	08/15/2000	--	12.2	74.1	0.0175	0.0307	285	--	<0.0036	--	<0.027	--
	NDM 226	10/16/2000	--	13.0	72.3	0.0385	0.0354	291	--	0.0156	--	<0.0272	--
R1-M6	NDM 414	10/18/2000	--	--	--	--	0.0385	--	--	--	--	--	--
R2-M1	NDJ-310	01/11/2000	--	--	--	--	0.0218	--	--	--	--	--	--
	NDK 312	04/12/2000	--	--	--	--	0.0535	--	--	--	--	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDE 900	11/01/2000	--	~9.390	46	<0.29	7.07	<0.85	<4.32	764.63	0.0099	934	2310
PW-17	NDK 318	04/13/2000	--	--	--	--	--	--	--	--	0.0181	--	--
	NDJ 165	08/15/2000	--	--	--	--	6.52	--	--	--	0.0059	--	--
	NDM 412	10/18/2000	--	33.100	--	--	6.48	--	--	--	0.0094	1670	--
PW-28	NDM 416	10/18/2000	--	17.300	74	--	6.55	--	--	--	0.128	1480	--
PW99-16	NDM 417	10/18/2000	--	26.000	88	--	6.39	--	--	--	0.126	1440	--
R1-M1	NDJ-451	01/10/2000	--	--	133	--	--	--	--	--	0.0189	--	--
	NDK 314	04/13/2000	--	--	164	--	6.17	--	--	--	0.0252	--	--
	NDK 315	04/13/2000	--	--	--	--	--	--	--	--	0.0251	--	--
	NDK 798	08/16/2000	--	--	42	--	6.71	<0.53	--	--	0.0038	--	--
	NDK 393	10/17/2000	--	--	76	--	6.78	--	--	--	0.0055	--	--
	NDK 394	10/17/2000	--	--	--	--	--	--	--	--	0.0054	--	--
R1-M2	NDJ-312	01/11/2000	--	--	107	--	6.52	--	--	--	0.0172	1220	--
	NDJ 382	04/11/2000	36.800	--	68	--	6.19	--	--	--	0.0304	1150	--
	NDK 366	08/16/2000	21.400	--	168	--	6.44	--	--	--	0.0041	1170	--
	NDK 391	10/17/2000	18.400	--	98	--	6.69	--	--	--	0.009	1180	--
R1-M3	NDJ-318	01/11/2000	--	--	-9	--	7.17	--	--	--	0.0269	1270	--
	NDJ 388	04/11/2000	34.600	--	-114	--	6.52	--	--	--	0.0496	1140	--
	NDK 320	08/16/2000	14.400	--	-132	--	6.65	--	--	--	0.0122	980	--
	NDK 327	08/16/2000	14.300	--	-132	--	6.65	--	--	--	0.0137	977	--
	NDK 392	10/17/2000	14.200	--	75	--	6.77	--	--	--	0.038	990	--
R1-M4	NDJ-338	01/11/2000	--	--	205	--	6.3	--	--	--	0.053	1320	--
	NDJ 358	04/11/2000	25.000	--	90	--	6.49	--	--	--	0.0967	1260	--
	NDK 357	08/15/2000	15.900	--	102	--	6	--	--	--	0.025	1040	--
	NDM 237	10/16/2000	12.400	--	35	--	6.56	--	--	--	0.0133	985	--
R1-M5	NDJ-465	01/12/2000	--	--	122	--	6.39	--	--	--	0.0504	--	--
	NDJ-155	01/12/2000	--	--	--	--	--	--	--	--	0.0494	--	--
	NDJ 393	04/12/2000	--	21.300	-88	--	6.13	--	--	--	0.0806	1150	--
	NDK 351	08/15/2000	15.100	--	177	--	6.88	<0.36	--	--	0.0418	1030	--
	NDM 226	10/16/2000	12.400	--	-32	--	6.56	--	--	--	0.0185	1030	--
R1-M6	NDM 414	10/18/2000	--	--	177	--	6.79	--	--	--	0.0267	--	--
R2-M1	NDJ-310	01/11/2000	--	--	-312	--	8.02	--	--	--	0.0035	--	--
	NDK 312	04/12/2000	--	--	-228	--	6.74	--	--	--	0.0287	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDE 900	11/01/2000	<1.7	11	17.7	0.0598	--	--	--	<0.0013
PW-17	NDK 318	04/13/2000	--	--	--	0.902	--	--	--	0.121
	NDJ 165	08/15/2000	--	15	>1000	0.916	--	--	--	0.211
	NDM 412	10/18/2000	<1.7	--	--	0.973	--	--	--	0.273
PW-28	NDM 416	10/18/2000	<1.7	15	132	0.324	--	--	--	0.221
PW99-16	NDM 417	10/18/2000	<1.7	14.3	22	0.330	--	--	--	0.224
R1-M1	NDJ-451	01/10/2000	--	10.8	1.22	0.706	--	--	--	0.450
	NDK 314	04/13/2000	--	9.3	8.71	0.456	--	--	--	0.345
	NDK 315	04/13/2000	--	--	--	0.454	--	--	--	0.348
	NDK 798	08/16/2000	--	14.4	8.85	0.391	--	--	--	0.396
	NDK 393	10/17/2000	--	14.4	5.25	0.455	--	--	--	0.455
	NDK 394	10/17/2000	--	--	--	0.471	--	--	--	0.450
R1-M2	NDJ-312	01/11/2000	--	10.7	22.2	0.609	--	--	--	0.424
	NDJ 382	04/11/2000	--	9	1.6	~0.447	--	--	--	0.293
	NDK 366	08/16/2000	--	13	>1000	0.394	--	--	--	0.370
	NDK 391	10/17/2000	--	14.9	26.7	0.446	--	--	--	0.439
R1-M3	NDJ-318	01/11/2000	--	10.5	5.67	0.722	--	--	--	0.357
	NDJ 388	04/11/2000	--	8.8	5.4	~0.464	--	--	--	0.248
	NDK 320	08/16/2000	--	13.2	66	0.288	--	--	--	0.371
	NDK 327	08/16/2000	--	13.2	66	0.286	--	--	--	0.365
	NDK 392	10/17/2000	--	15.2	33.1	0.356	--	--	--	0.413
R1-M4	NDJ-338	01/11/2000	--	10.5	26	0.526	--	--	--	0.330
	NDJ 358	04/11/2000	--	8.5	4.35	0.449	--	--	--	0.208
	NDK 357	08/15/2000	--	15	56.4	0.332	--	--	--	0.313
	NDM 237	10/16/2000	--	14.3	150	0.342	--	--	--	0.354
R1-M5	NDJ-465	01/12/2000	--	10.3	13.6	0.536	--	--	--	0.304
	NDJ-155	01/12/2000	--	--	--	0.543	--	--	--	0.303
	NDJ 393	04/12/2000	--	8.2	5.27	0.397	--	--	--	0.214
	NDK 351	08/15/2000	--	15.5	16	0.245	--	--	--	0.306
	NDM 226	10/16/2000	--	15	2.41	0.258	--	--	--	0.350
R1-M6	NDM 414	10/18/2000	--	15.7	550	0.270	--	--	--	0.288
R2-M1	NDJ-310	01/11/2000	--	10.6	17.4	0.0187	--	--	--	<0.001
	NDK 312	04/12/2000	--	9.5	9.07	0.0797	--	--	--	<0.0004

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDK 795	08/16/2000	108	<0.0003	--	--	--	0.31	2490	--	--	--
	NDM 409	10/17/2000	226	<0.0002	--	--	--	0.3	2660	--	--	--
R2-M2	NDJ-313	01/11/2000	265	<0.0004	--	265	156	0.21	2900	5.600	--	--
	NDJ 383	04/11/2000	285	0.00024	--	255	127	0.22	4930	7.250	--	--
	NDK 369	08/16/2000	211	<0.0003	--	203	83.5	0.35	2600	3.040	--	--
	NDK 385	10/17/2000	279	<0.0002	--	266	85.3	0.3	2740	1.920	--	--
R2-M3	NDJ-456	01/11/2000	343	<0.0004	--	--	--	0.4	3000	--	--	--
	NDK 310	04/12/2000	280	<0.0002	--	--	--	0.13	4800	--	--	--
	NDK 793	08/16/2000	197	<0.0003	--	--	--	0.3	3420	--	--	--
	NDK 797	08/16/2000	--	<0.0003	--	--	--	--	--	--	--	--
	NDM 407	10/17/2000	333	<0.0002	--	--	--	0.19	2650	--	--	--
R2-M4	NDJ-319	01/11/2000	195	<0.0004	--	239	174	0.4	3000	4.480	--	--
	NDJ-452	01/11/2000	--	<0.0004	--	242	174	--	--	4.910	--	--
	NDJ 389	04/11/2000	250	<0.0002	--	236	149	0.46	4830	5.870	--	--
	NDK 321	08/16/2000	319	<0.0003	--	177	86.6	0.26	2390	4.590	--	--
	NDK 386	10/17/2000	282	<0.0002	--	230	107	0.08	2540	9.370	--	--
R2-M5	NDJ-455	01/11/2000	331	<0.0004	--	--	--	0.25	3010	--	--	--
	NDJ 164	04/11/2000	265	<0.0002	--	--	--	0.5	3110	--	--	--
	NDK 786	08/16/2000	375	0.00034	--	--	--	0.88	2510	--	--	--
	NDK 400	10/17/2000	311	0.00083	--	--	--	0.3	2610	--	--	--
	NDM 401	10/17/2000	--	0.00092	--	--	--	--	--	--	--	--
R2-M6	NDJ-459	01/11/2000	354	0.00086	--	--	--	0.27	3050	--	--	--
	NDK 307	04/12/2000	315	0.0011	--	--	--	0.31	5180	--	--	--
	NDK 778	08/16/2000	250	0.00051	--	--	--	0.78	4210	--	--	--
	NDM 376	10/17/2000	311	0.00027	--	--	--	0.6	2640	--	--	--
R2-M7	NDJ-339	01/11/2000	382	0.00079	--	383	198	0.45	3260	--	--	--
	NDJ 356	04/11/2000	316	0.00086	--	301	196	0.67	3230	--	--	--
	NDK 358	08/15/2000	279	<0.0003	--	223	109	0.48	4030	3.780	--	--
	NDM 236	10/16/2000	237	<0.0002	--	211	107	0.6	2460	3.630	--	--
R2-M8	NDJ-344	01/12/2000	391	<0.0004	--	--	--	0.57	3190	--	--	--
	NDK 304	04/12/2000	370	0.00021	--	--	--	0.14	5150	--	--	--
	NDK 779	08/16/2000	312	<0.0003	--	--	--	0.24	2770	--	--	--
	NDM 385	10/18/2000	318	<0.0002	--	--	--	--	2660	--	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDK 795	08/16/2000	--	--	--	--	0.0201	--	--	--	--	--	--
	NDM 409	10/17/2000	--	--	--	--	0.0205	--	--	--	--	--	--
R2-M2	NDJ-313	01/11/2000	--	21.0	78.3	0.583	0.0285	365	5.120	--	4.170	--	42.400
	NDJ 383	04/11/2000	--	19.2	67.4	0.548	~0.0412	282	4.050	--	--	1.710	--
	NDK 369	08/16/2000	--	20.7	58.8	0.353	0.0564	308	--	3.090	--	0.623	--
	NDK 385	10/17/2000	--	22.4	66.8	0.437	0.0426	316	--	1.210	--	1.220	--
R2-M3	NDJ-456	01/11/2000	--	--	--	--	~0.0324	--	--	--	--	--	--
	NDK 310	04/12/2000	--	--	--	--	0.0328	--	--	--	--	--	--
	NDK 793	08/16/2000	--	--	--	--	0.046	--	--	--	--	--	--
	NDK 797	08/16/2000	--	--	--	--	0.0462	--	--	--	--	--	--
	NDM 407	10/17/2000	--	--	--	--	0.018	--	--	--	--	--	--
R2-M4	NDJ-319	01/11/2000	--	16.0	77.8	0.431	0.0243	347	4.040	--	0.716	--	24.300
	NDJ-452	01/11/2000	--	16.7	80.5	0.462	0.022	358	4.020	--	0.640	--	24.100
	NDJ 389	04/11/2000	--	16.5	75.8	0.426	~0.0191	289	6.300	--	--	0.603	--
	NDK 321	08/16/2000	--	18.3	51.9	0.277	0.0356	275	--	2.750	--	0.578	--
	NDK 386	10/17/2000	--	21.1	65.3	0.470	0.0242	280	--	2.380	--	0.964	--
R2-M5	NDJ-455	01/11/2000	--	--	--	--	~0.0333	--	--	--	--	--	--
	NDJ 164	04/11/2000	--	--	--	--	0.039	--	--	--	--	--	--
	NDK 786	08/16/2000	--	--	--	--	0.0506	--	--	--	--	--	--
	NDK 400	10/17/2000	--	--	--	--	0.0526	--	--	--	--	--	--
	NDM 401	10/17/2000	--	--	--	--	0.0524	--	--	--	--	--	--
R2-M6	NDJ-459	01/11/2000	--	--	--	--	~0.0432	--	--	--	--	--	--
	NDK 307	04/12/2000	--	--	--	--	0.0389	--	--	--	--	--	--
	NDK 778	08/16/2000	--	--	--	--	0.0531	--	--	--	--	--	--
	NDM 376	10/17/2000	--	--	--	--	0.0324	--	--	--	--	--	--
R2-M7	NDJ-339	01/11/2000	--	17.7	102	--	~0.0421	332	0.401	--	0.216	--	61.800
	NDJ 356	04/11/2000	--	12.9	81.9	--	~0.037	260	0.749	--	--	0.0484	--
	NDK 358	08/15/2000	--	13.8	60.4	0.197	0.0463	279	--	1.200	--	0.0442	--
	NDM 236	10/16/2000	--	14.6	60.9	0.191	0.0462	284	--	0.803	--	0.0499	--
R2-M8	NDJ-344	01/12/2000	--	--	--	--	0.0274	--	--	--	--	--	--
	NDK 304	04/12/2000	--	--	--	--	0.012	--	--	--	--	--	--
	NDK 779	08/16/2000	--	--	--	--	0.0204	--	--	--	--	--	--
	NDM 385	10/18/2000	--	--	--	--	0.017	--	--	--	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDK 795	08/16/2000	--	--	-283	--	7.73	--	--	--	0.00045	--	--
	NDM 409	10/17/2000	--	--	-214	--	7.87	--	--	--	0.0022	--	--
R2-M2	NDJ-313	01/11/2000	--	--	48	--	7.26	--	--	--	0.0128	1230	--
	NDJ 383	04/11/2000	28.700	--	-36	--	6.72	--	--	--	0.0294	1170	--
	NDK 369	08/16/2000	4.370	--	56	--	7.08	--	--	--	0.002	1080	--
	NDK 385	10/17/2000	9.630	--	-69	--	7.23	--	--	--	0.0061	1130	--
R2-M3	NDJ-456	01/11/2000	--	--	-149	--	7.01	--	--	--	0.0174	--	--
	NDK 310	04/12/2000	--	--	-144	--	6.74	--	--	--	0.0293	--	--
	NDK 793	08/16/2000	--	--	-158	--	7.58	--	--	--	0.0022	--	--
	NDK 797	08/16/2000	--	--	--	--	--	--	--	--	0.0022	--	--
	NDM 407	10/17/2000	--	--	-142	--	7.29	--	--	--	0.0111	--	--
R2-M4	NDJ-319	01/11/2000	--	--	-121	--	7.63	--	--	--	0.0141	1230	--
	NDJ-452	01/11/2000	--	--	--	--	--	--	--	--	0.0129	1240	--
	NDJ 389	04/11/2000	13.500	--	-133	--	6.73	--	--	--	0.0276	1120	--
	NDK 321	08/16/2000	4.210	--	-184	--	7.13	--	--	--	0.0059	956	--
	NDK 386	10/17/2000	4.470	--	-116	--	7.42	--	--	--	0.0189	983	--
R2-M5	NDJ-455	01/11/2000	--	--	-173	--	6.93	--	--	--	0.0261	--	--
	NDJ 164	04/11/2000	--	--	-35	--	6.9	--	--	--	0.0417	--	--
	NDK 786	08/16/2000	--	--	-99	--	6.74	--	--	--	0.0093	--	--
	NDK 400	10/17/2000	--	--	-60	--	7.05	--	--	--	0.0414	--	--
	NDM 401	10/17/2000	--	--	--	--	--	--	--	--	0.0387	--	--
R2-M6	NDJ-459	01/11/2000	--	--	-63	--	6.57	--	--	--	0.0376	--	--
	NDK 307	04/12/2000	--	--	-82	--	6.28	--	--	--	0.063	--	--
	NDK 778	08/16/2000	--	--	214	--	7.08	--	--	--	0.010	--	--
	NDM 376	10/17/2000	--	--	13	--	6.84	--	--	--	0.0129	--	--
R2-M7	NDJ-339	01/11/2000	--	--	31	--	6.59	--	--	--	0.0486	1280	--
	NDJ 356	04/11/2000	23.800	--	102	--	6.49	--	--	--	0.083	1200	--
	NDK 358	08/15/2000	4.110	--	-56	--	7	--	--	--	0.0064	976	--
	NDM 236	10/16/2000	3.190	--	-90	--	7	--	--	--	0.004	933	--
R2-M8	NDJ-344	01/12/2000	--	--	-157	--	7.16	--	--	--	0.0351	--	--
	NDK 304	04/12/2000	--	--	-206	--	6.82	--	--	--	0.049	--	--
	NDK 779	08/16/2000	--	--	-134	--	6.96	--	--	--	0.0155	--	--
	NDM 385	10/18/2000	--	--	-146	--	7.35	--	--	--	0.0115	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDK 795	08/16/2000	--	14	3.2	0.0126	--	--	--	<0.0012
	NDM 409	10/17/2000	--	15.1	5.21	0.0356	--	--	--	<0.0012
R2-M2	NDJ-313	01/11/2000	--	10.9	11.2	0.145	--	--	--	<0.001
	NDJ 383	04/11/2000	--	9	5.37	~0.161	--	--	--	<0.0004
	NDK 369	08/16/2000	--	14.2	8.19	0.143	--	--	--	<0.0012
	NDK 385	10/17/2000	--	15	1.43	0.265	--	--	--	<0.0012
R2-M3	NDJ-456	01/11/2000	--	10.9	3.93	0.228	--	--	--	<0.001
	NDK 310	04/12/2000	--	8.9	8.25	0.138	--	--	--	<0.0004
	NDK 793	08/16/2000	--	16.6	4.47	0.153	--	--	--	<0.0012
	NDK 797	08/16/2000	--	--	--	0.148	--	--	--	<0.0012
	NDM 407	10/17/2000	--	15.8	7.05	0.206	--	--	--	<0.0012
R2-M4	NDJ-319	01/11/2000	--	11.3	14.7	0.101	--	--	--	<0.001
	NDJ-452	01/11/2000	--	--	--	0.0898	--	--	--	<0.001
	NDJ 389	04/11/2000	--	8.3	14.7	~0.136	--	--	--	<0.0004
	NDK 321	08/16/2000	--	14.8	--	0.0864	--	--	--	<0.0012
	NDK 386	10/17/2000	--	15.2	8.09	0.104	--	--	--	<0.0012
R2-M5	NDJ-455	01/11/2000	--	10.1	5.35	0.346	--	--	--	<0.001
	NDJ 164	04/11/2000	--	8.3	6.08	0.344	--	--	--	0.0061
	NDK 786	08/16/2000	--	16	21.1	0.209	--	--	--	0.0397
	NDK 400	10/17/2000	--	15.1	1.24	0.283	--	--	--	0.0782
	NDM 401	10/17/2000	--	--	--	0.281	--	--	--	0.0798
R2-M6	NDJ-459	01/11/2000	--	10	3.67	0.677	--	--	--	0.103
	NDK 307	04/12/2000	--	9.3	2.96	0.466	--	--	--	0.0823
	NDK 778	08/16/2000	--	16.1	1.86	0.310	--	--	--	0.0399
	NDM 376	10/17/2000	--	15.9	1.65	0.257	--	--	--	0.0306
R2-M7	NDJ-339	01/11/2000	--	10.5	8.58	0.654	--	--	--	0.133
	NDJ 356	04/11/2000	--	8.6	3.15	0.522	--	--	--	0.0883
	NDK 358	08/15/2000	--	14.8	5.29	0.274	--	--	--	0.0242
	NDM 236	10/16/2000	--	15.4	9.17	0.168	--	--	--	0.0173
R2-M8	NDJ-344	01/12/2000	--	8.1	22.6	0.208	--	--	--	0.0011
	NDK 304	04/12/2000	--	9	43.9	0.108	--	--	--	<0.0004
	NDK 779	08/16/2000	--	16.3	6.2	0.147	--	--	--	0.0113
	NDM 385	10/18/2000	--	15.7	5.72	0.155	--	--	--	0.0069

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
R2-M9	NDJ-462	01/12/2000	330	<0.0004	--	--	--	0.3	2890	--	--	--
	NDJ 394	04/12/2000	365	<0.0002	--	317	200	0.18	5260	22.000	--	--
	NDK 352	08/15/2000	227	<0.0003	--	237	134	0.62	4340	15.800	--	--
	NDM 227	10/16/2000	334	0.00021	--	261	124	1.4	2700	13.000	--	--
R2-M10	NDJ-463	01/12/2000	123	<0.0004	--	--	--	0.25	2570	--	--	--
	NDK 301	04/12/2000	180	<0.0002	--	--	--	0.04	4500	--	--	--
	NDK 777	08/15/2000	275	<0.0003	--	--	--	0.51	3570	--	--	--
	NDM 390	10/18/2000	170	<0.0002	--	--	--	0.742	2330	--	--	--
R3-M1	NDJ-314	01/11/2000	236	<0.0004	--	220	159	0.2	2910	21.600	--	--
	NDJ 384	04/11/2000	--	<0.0002	--	241	129	--	--	13.200	--	--
	NDK 370	08/16/2000	230	<0.0003	--	205	83.9	0.22	2610	7.820	--	--
	NDK 384	10/17/2000	288	<0.0002	--	247	86.8	0.1	2700	8.970	--	--
R3-M2	NDJ-320	01/11/2000	180	<0.0004	--	224	175	0.23	2850	7.710	--	--
	NDJ 390	04/11/2000	330	0.00025	--	263	146	0.28	4920	11.900	--	--
	NDK 322	08/16/2000	220	<0.0003	--	184	85.6	0.22	2450	8.710	--	--
	NDK 388	10/17/2000	294	<0.0002	--	239	108	0.196	2550	20.000	--	--
R3-M3	NDJ-340	01/11/2000	389	<0.0004	--	380	199	0.47	3220	--	--	--
	NDJ 355	04/11/2000	317	0.00036	--	258	196	0.44	3250	--	--	--
	NDK 359	08/15/2000	292	<0.0003	--	227	106	0.56	3970	1.010	--	--
	NDM 235	10/16/2000	235	<0.0002	--	208	103	0.7	2320	1.290	--	--
R3-M4	NDJ-350	01/12/2000	247	<0.0004	--	--	--	0.27	2810	--	--	--
	NDJ 395	04/12/2000	375	<0.0002	--	312	201	0.11	5300	31.100	--	--
	NDK 353	08/15/2000	225	<0.0003	--	197	130	0.5	4070	25.700	--	--
	NDM 228	10/16/2000	300	<0.0002	--	246	122	1.5	2600	20.700	--	--
R4-M1	NDJ-315	01/11/2000	43	<0.0004	--	120	157	0.18	2610	0.0958	--	--
	NDJ 385	04/11/2000	83	<0.0002	--	137	126	0.06	4320	13.200	--	--
	NDK 371	08/16/2000	50	<0.0003	--	127	85.3	0.16	2360	0.338	--	--
	NDK 383	10/17/2000	39	<0.0002	--	94.6	89.3	0.19	2330	0.687	--	--
R4-M2	NDJ-457	01/11/2000	32	<0.0004	--	--	--	0.14	2500	--	--	--
	NDK 309	04/12/2000	105	<0.0002	--	--	--	0.09	4420	--	--	--
	NDK 792	08/16/2000	31	<0.0003	--	--	--	0.53	3500	--	--	--
	NDM 406	10/17/2000	110	<0.0002	--	--	--	0.37	2320	--	--	--
R4-M3	NDJ-321	01/11/2000	39	<0.0004	--	137	177	0.43	2710	0.348	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
R2-M9	NDJ-462	01/12/2000	--	--	--	--	0.0204	--	--	--	--	--	--
	NDJ 394	04/12/2000	--	9.65	90.5	0.483	0.0169	267	--	--	--	--	--
	NDK 352	08/15/2000	--	12.3	72.9	0.264	0.0195	283	--	2.450	--	0.627	--
	NDM 227	10/16/2000	--	12.6	72.3	0.203	0.0249	281	--	2.090	--	0.643	--
R2-M10	NDJ-463	01/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 301	04/12/2000	--	--	--	--	0.0049	--	--	--	--	--	--
	NDK 777	08/15/2000	--	--	--	--	0.0049	--	--	--	--	--	--
	NDM 390	10/18/2000	--	--	--	--	0.0068	--	--	--	--	--	--
R3-M1	NDJ-314	01/11/2000	--	21.7	78.5	0.880	0.0187	362	9.320	--	2.410	--	17.000
	NDJ 384	04/11/2000	--	18.2	64.5	0.466	~0.0445	274	3.680	--	--	1.120	--
	NDK 370	08/16/2000	--	20.9	58.9	0.360	0.0558	306	--	2.910	--	0.646	--
	NDK 384	10/17/2000	--	22.0	66.8	0.484	0.0346	312	--	2.410	--	1.260	--
R3-M2	NDJ-320	01/11/2000	--	16.6	81.3	0.635	0.0248	355	5.040	--	<0.028	--	8.010
	NDJ 390	04/11/2000	--	16.2	72.5	0.498	~0.0212	270	4.880	--	--	0.712	--
	NDK 322	08/16/2000	--	18.3	53.4	0.343	0.0424	283	--	2.470	--	0.795	--
	NDK 388	10/17/2000	--	21.4	65.4	0.488	0.0249	283	--	2.240	--	0.988	--
R3-M3	NDJ-340	01/11/2000	--	18.2	100	--	~0.038	334	0.913	--	0.340	--	59.800
	NDJ 355	04/11/2000	--	11.0	69.2	--	~0.0351	220	0.932	--	--	0.0651	--
	NDK 359	08/15/2000	--	14.5	59.5	0.197	0.0512	278	--	1.670	--	0.125	--
	NDM 235	10/16/2000	--	15.0	57.3	0.172	0.0536	285	--	1.320	--	0.0648	--
R3-M4	NDJ-350	01/12/2000	--	--	--	--	0.010	--	--	--	--	--	--
	NDJ 395	04/12/2000	--	9.49	90.9	0.606	0.0151	247	--	--	--	--	--
	NDK 353	08/15/2000	--	12.3	71.1	0.401	0.0106	289	--	3.360	--	0.168	--
	NDM 228	10/16/2000	--	12.9	73.9	0.359	0.016	288	--	3.060	--	0.827	--
R4-M1	NDJ-315	01/11/2000	--	21.6	75.4	0.223	<0.0004	363	11.100	--	<0.028	--	<0.080
	NDJ 385	04/11/2000	--	19.4	68.8	0.744	~0.0108	289	~23.500	--	--	0.560	--
	NDK 371	08/16/2000	--	20.9	56.0	0.089	0.005	316	--	4.970	--	<0.027	--
	NDK 383	10/17/2000	--	22.3	78.9	0.562	0.0051	311	--	7.100	--	<0.0136	--
R4-M2	NDJ-457	01/11/2000	--	--	--	--	<0.0004[b]	--	--	--	--	--	--
	NDK 309	04/12/2000	--	--	--	--	0.0046	--	--	--	--	--	--
	NDK 792	08/16/2000	--	--	--	--	0.0057	--	--	--	--	--	--
	NDM 406	10/17/2000	--	--	--	--	<0.0003	--	--	--	--	--	--
R4-M3	NDJ-321	01/11/2000	--	18.5	86.2	1.070	0.0088	365	7.380	--	<0.028	--	<0.080

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
R2-M9	NDJ-462	01/12/2000	--	--	-224	--	7.23	--	--	--	0.0184	--	--
	NDJ 394	04/12/2000	--	12.100	-158	--	6.64	--	--	--	0.0566	1180	--
	NDK 352	08/15/2000	4.570	--	-60	--	6.79	--	--	--	0.0161	1010	--
	NDM 227	10/16/2000	5.640	--	-62	--	6.44	--	--	--	0.0097	1020	--
R2-M10	NDJ-463	01/12/2000	--	--	-299	--	7.63	--	--	--	0.0015	--	--
	NDK 301	04/12/2000	--	--	-316	--	7.41	--	--	--	0.010	--	--
	NDK 777	08/15/2000	--	--	-130	--	7.98	--	--	--	0.00025	--	--
	NDM 390	10/18/2000	--	--	-236	--	7.76	--	--	--	0.00087	--	--
R3-M1	NDJ-314	01/11/2000	--	--	-75	--	7.44	--	--	--	0.009	1240	--
	NDJ 384	04/11/2000	29.500	--	--	--	--	--	--	--	0.0315	1170	--
	NDK 370	08/16/2000	3.940	--	-132	--	7.12	--	--	--	0.0027	1080	--
	NDK 384	10/17/2000	5.850	--	-184	--	7.46	--	--	--	0.0053	1110	--
R3-M2	NDJ-320	01/11/2000	--	--	-187	--	7.55	--	--	--	0.0085	1260	--
	NDJ 390	04/11/2000	15.000	--	-211	--	7	--	--	--	0.0332	1110	--
	NDK 322	08/16/2000	4.630	--	-177	--	7.08	--	--	--	0.0065	956	--
	NDK 388	10/17/2000	4.860	--	-156	--	7.52	--	--	--	0.0198	981	--
R3-M3	NDJ-340	01/11/2000	--	--	-72	--	6.66	--	--	--	0.0452	1290	--
	NDJ 355	04/11/2000	23.300	--	113	--	6.47	--	--	--	0.0824	1200	--
	NDK 359	08/15/2000	3.820	--	-39	--	7.23	--	--	--	0.0084	981	--
	NDM 235	10/16/2000	1.940	--	-107	--	7.18	--	--	--	0.004	921	--
R3-M4	NDJ-350	01/12/2000	--	--	-290	--	7.5	--	--	--	0.0131	--	--
	NDJ 395	04/12/2000	--	10.900	-212	--	6.84	--	--	--	0.054	1190	--
	NDK 353	08/15/2000	0.470	--	-203	--	7.32	--	--	--	0.0061	1010	--
	NDM 228	10/16/2000	3.380	--	-182	--	7.4	--	--	--	0.0064	1020	--
R4-M1	NDJ-315	01/11/2000	--	--	-186	--	7.76	--	--	--	<0.0001	1140	--
	NDJ 385	04/11/2000	5.750	--	-533	--	8.34	--	--	--	0.0038	1140	--
	NDK 371	08/16/2000	<0.031	--	-393	--	9.38	--	--	--	0.00011	1070	--
	NDK 383	10/17/2000	<0.0148	--	-380	--	9.4	--	--	--	<0.0001	1060	--
R4-M2	NDJ-457	01/11/2000	--	--	-390	--	9.03	--	--	--	<0.0001	--	--
	NDK 309	04/12/2000	--	--	-308	--	7.45	--	--	--	0.0068	--	--
	NDK 792	08/16/2000	--	--	-15	--	8.65	--	--	--	0.00011	--	--
	NDM 406	10/17/2000	--	--	-239	--	7.86	--	--	--	<0.0001	--	--
R4-M3	NDJ-321	01/11/2000	--	--	-352	--	9.3	--	--	--	0.00013	1210	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
R2-M9	NDJ-462	01/12/2000	--	10.4	7.51	0.0601	--	--	--	<0.001
	NDJ 394	04/12/2000	--	8.1	8.54	0.0966	--	--	--	<0.00040
	NDK 352	08/15/2000	--	16.2	9.43	0.124	--	--	--	0.0087
	NDM 227	10/16/2000	--	16.4	4.6	0.121	--	--	--	0.0238
R2-M10	NDJ-463	01/12/2000	--	10.7	7.33	<0.0001	--	--	--	<0.001
	NDK 301	04/12/2000	--	9.2	43.9	<0.0001	--	--	--	<0.0004
	NDK 777	08/15/2000	--	16.4	12	<0.0001	--	--	--	<0.0012
	NDM 390	10/18/2000	--	16.6	6.48	<0.00010	--	--	--	<0.0012
R3-M1	NDJ-314	01/11/2000	--	10.9	14.4	0.0414	--	--	--	<0.001
	NDJ 384	04/11/2000	--	--	--	~0.157	--	--	--	0.003
	NDK 370	08/16/2000	--	14.7	4.45	0.135	--	--	--	<0.0012
	NDK 384	10/17/2000	--	15.6	2.77	0.160	--	--	--	0.0015
R3-M2	NDJ-320	01/11/2000	--	11.2	2.46	0.0159	--	--	--	<0.001
	NDJ 390	04/11/2000	--	8.1	7.4	~0.0982	--	--	--	<0.0004
	NDK 322	08/16/2000	--	15.3	2.8	0.0706	--	--	--	<0.0012
	NDK 388	10/17/2000	--	15.2	13.6	0.065	--	--	--	<0.0012
R3-M3	NDJ-340	01/11/2000	--	10.4	8.85	0.594	--	--	--	0.0405
	NDJ 355	04/11/2000	--	8.5	3.03	0.534	--	--	--	0.053
	NDK 359	08/15/2000	--	15.1	2.79	0.345	--	--	--	0.0151
	NDM 235	10/16/2000	--	16	9.26	0.202	--	--	--	0.0079
R3-M4	NDJ-350	01/12/2000	--	10.4	2.95	0.0017	--	--	--	<0.001
	NDJ 395	04/12/2000	--	8.1	11.9	0.0365	--	--	--	<0.0004
	NDK 353	08/15/2000	--	16.8	7.81	0.027	--	--	--	<0.0012
	NDM 228	10/16/2000	--	16.5	8.49	0.085	--	--	--	<0.0012
R4-M1	NDJ-315	01/11/2000	--	11.2	7.62	<0.0001	--	--	--	<0.001
	NDJ 385	04/11/2000	--	10.4	84	<0.00010[b]	--	--	--	<0.0004
	NDK 371	08/16/2000	--	13.7	4.34	<0.00010	--	--	--	<0.0012
	NDK 383	10/17/2000	--	15.1	3.78	<0.00010	--	--	--	<0.0012
R4-M2	NDJ-457	01/11/2000	--	11.7	5.05	0.00011	--	--	--	<0.001
	NDK 309	04/12/2000	--	9.8	5.18	<0.00010	--	--	--	<0.0004
	NDK 792	08/16/2000	--	17.2	3.69	<0.00010	--	--	--	<0.0012
	NDM 406	10/17/2000	--	16.3	10.5	<0.00010	--	--	--	<0.0012
R4-M3	NDJ-321	01/11/2000	--	11.8	2.99	<0.0001	--	--	--	<0.001

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDJ 391	04/11/2000	45	<0.0002	--	138	158	0.05	4330	7.250	--	--
	NDK 323	08/16/2000	30	<0.0003	--	82.5	87.6	0.13	2100	1.880	--	--
	NDK 389	10/17/2000	93	<0.0002	--	105	108	0.06	2240	12.400	--	--
R4-M4	NDJ-454	01/11/2000	44	<0.0004	--	--	--	0.22	2720	--	--	--
	NDJ 163	04/11/2000	117	0.00042	--	--	--	0.12	2870	--	--	--
	NDK 787	08/16/2000	50	<0.0003	--	--	--	0.34	2120	--	--	--
	NDM 402	10/17/2000	102	<0.0002	--	--	--	0.19	2220	--	--	--
R4-M5	NDJ-460	01/11/2000	156	<0.0004	--	--	--	0.17	2760	--	--	--
	NDK 306	04/12/2000	110	<0.0002	--	--	--	0.08	4500	--	--	--
	NDK 783	08/16/2000	44	<0.0003	--	--	--	0.54	3120	--	--	--
	NDM 377	10/17/2000	35	<0.0002	--	--	--	0.636	1960	--	--	--
R4-M6	NDJ-341	01/11/2000	69	<0.0004	--	165	206	0.34	2730	--	--	--
	NDJ 353	04/11/2000	42	<0.0002	--	147	195	0.42	2720	--	--	--
	NDJ 354	04/11/2000	--	<0.0002	--	142	200	--	--	--	--	--
	NDK 360	08/16/2000	34	<0.0003	--	66.8	111	1.3	3100	<0.0091	--	--
	NDK 368	08/16/2000	--	<0.0003	--	65.7	116	--	--	0.0679	--	--
	NDM 234	10/16/2000	38	<0.0002	--	51.3	102	0.6	1935	0.0932	--	--
R4-M7	NDJ-345	01/12/2000	143	<0.0004	--	--	--	0.2	5190	--	--	--
	NDK 303	04/12/2000	80	<0.0002	--	--	--	0.07	4500	--	--	--
	NDK 780	08/16/2000	34	<0.0003	--	--	--	0.2	2110	--	--	--
	NDM 387	10/18/2000	35	<0.0002	--	--	--	0.382	2160	--	--	--
R4-M8	NDJ-349	01/12/2000	58	<0.0004	--	--	--	0.3	2650	--	--	--
	NDJ 396	04/12/2000	55	<0.0002	--	171	197	0.01	4440	2.930	--	--
	NDK 354	08/15/2000	74	<0.0003	--	79.8	121	0.54	3380	<0.0091	--	--
	NDM 229	10/16/2000	46	<0.0002	--	60.3	119	1.2	2200	0.0651	--	--
R5-M1	NDJ-311	01/11/2000	25	<0.0004	--	--	--	0.25	2290	--	--	--
	NDK 311	04/12/2000	61	<0.0002	--	--	--	0.02	4280	--	--	--
	NDK 796	08/16/2000	53	<0.0003	--	--	--	0.71	2330	--	--	--
	NDM 410	10/18/2000	40	<0.0002	--	--	--	0.1	2410	--	--	--
R5-M2	NDJ-316	01/11/2000	31	<0.0004	--	119	159	0.19	2620	0.125	--	--
	NDJ 386	04/11/2000	66	<0.0002	--	121	127	0.05	4370	7.100	--	--
	NDK 372	08/16/2000	41	<0.0003	--	128	84.4	0.14	2350	0.228	--	--
	NDK 382	10/17/2000	40	<0.0002	--	90.7	90.6	0.09	2290	<0.0116	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDJ 391	04/11/2000	--	15.8	73.1	0.616	~0.0045	277	17.000	--	--	<0.0136	--
	NDK 323	08/16/2000	--	18.1	49.2	0.171	0.0065	274	--	4.950	--	<0.0135	--
	NDK 389	10/17/2000	--	21.4	68.4	0.885	0.0091	280	--	6.420	--	<0.0136	--
R4-M4	NDJ-454	01/11/2000	--	--	--	--	<0.0004[b]	--	--	--	--	--	--
	NDJ 163	04/11/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 787	08/16/2000	--	--	--	--	0.0034	--	--	--	--	--	--
	NDM 402	10/17/2000	--	--	--	--	<0.0003	--	--	--	--	--	--
R4-M5	NDJ-460	01/11/2000	--	--	--	--	~0.0131	--	--	--	--	--	--
	NDK 306	04/12/2000	--	--	--	--	0.0205	--	--	--	--	--	--
	NDK 783	08/16/2000	--	--	--	--	0.0241	--	--	--	--	--	--
	NDM 377	10/17/2000	--	--	--	--	0.0316	--	--	--	--	--	--
R4-M6	NDJ-341	01/11/2000	--	17.7	99.2	--	<0.0004[b]	334	10.400	--	<0.028	--	<0.080
	NDJ 353	04/11/2000	--	13.8	88.7	--	<0.0004[b]	281	14.600	--	--	<0.0272	--
	NDJ 354	04/11/2000	--	13.5	85.3	--	<0.0004[b]	271	14.800	--	--	<0.0272	--
	NDK 360	08/16/2000	--	15.0	45.1	0.0132	0.0039	283	--	3.170	--	<0.027	--
	NDK 368	08/16/2000	--	14.5	43.5	0.0138	0.0041	283	--	3.020	--	<0.0135	--
	NDM 234	10/16/2000	--	15.7	51.8	0.0279	0.0059	285	--	2.070	--	<0.0136	--
R4-M7	NDJ-345	01/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 303	04/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 780	08/16/2000	--	--	--	--	0.0057	--	--	--	--	--	--
	NDM 387	10/18/2000	--	--	--	--	0.0086	--	--	--	--	--	--
R4-M8	NDJ-349	01/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDJ 396	04/12/2000	--	11.3	89.8	0.573	<0.0004	265	--	--	--	--	--
	NDK 354	08/15/2000	--	12.7	60.8	0.0844	0.0034	291	--	2.660	--	<0.027	--
	NDM 229	10/16/2000	--	14.0	92.4	0.0859	<0.0003	291	--	3.230	--	<0.0136	--
R5-M1	NDJ-311	01/11/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 311	04/12/2000	--	--	--	--	0.0078	--	--	--	--	--	--
	NDK 796	08/16/2000	--	--	--	--	0.009	--	--	--	--	--	--
	NDM 410	10/18/2000	--	--	--	--	0.0105	--	--	--	--	--	--
R5-M2	NDJ-316	01/11/2000	--	21.5	74.2	0.327	<0.0004	363	11.400	--	<0.028	--	<0.080
	NDJ 386	04/11/2000	--	19.4	68.5	0.800	~0.0093	289	~30.000	--	--	0.319	--
	NDK 372	08/16/2000	--	20.6	52.5	0.0934	0.0067	307	--	5.080	--	<0.027	--
	NDK 382	10/17/2000	--	22.8	81.8	0.0668	0.010	316	--	6.770	--	<0.0136	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDJ 391	04/11/2000	0.0416	--	-414	--	8.05	--	--	--	0.00049	1090	--
	NDK 323	08/16/2000	<0.0155	--	-423	--	8.5	--	--	--	<0.0001	876	--
	NDK 389	10/17/2000	<0.0148	--	-316	--	8.19	--	--	--	<0.0001	930	--
R4-M4	NDJ-454	01/11/2000	--	--	-378	--	9.17	--	--	--	<0.0001	--	--
	NDJ 163	04/11/2000	--	--	47	--	7.96	--	--	--	0.0064	--	--
	NDK 787	08/16/2000	--	--	-289	--	8.7	--	--	--	<0.0001	--	--
	NDM 402	10/17/2000	--	--	-375	--	8.58	--	--	--	<0.0001	--	--
R4-M5	NDJ-460	01/11/2000	--	--	-262	--	7.51	--	--	--	<0.0001	--	--
	NDK 306	04/12/2000	--	--	-286	--	7.36	--	--	--	0.0033	--	--
	NDK 783	08/16/2000	--	--	59	--	9.18	--	--	--	<0.0001	--	--
	NDM 377	10/17/2000	--	--	-350	--	9.36	--	--	--	0.0001	--	--
R4-M6	NDJ-341	01/11/2000	--	--	-320	--	9.59	--	--	--	<0.0001	1200	--
	NDJ 353	04/11/2000	<0.0296	--	124	--	8.12	--	--	--	<0.0002	1100	--
	NDJ 354	04/11/2000	<0.0296	--	--	--	--	--	--	--	<0.0002	1130	--
	NDK 360	08/16/2000	<0.031	--	153	--	9.24	--	--	--	<0.0001	788	--
	NDK 368	08/16/2000	0.0195	--	--	--	--	--	--	--	<0.0001	783	--
	NDM 234	10/16/2000	<0.0148	--	-162	--	9.37	--	--	--	<0.0001	763	--
R4-M7	NDJ-345	01/12/2000	--	--	-365	--	7.93	--	--	--	0.0002	--	--
	NDK 303	04/12/2000	--	--	-308	--	7.73	--	--	--	<0.0002	--	--
	NDK 780	08/16/2000	--	--	-315	--	9.14	--	--	--	0.00015	--	--
	NDM 387	10/18/2000	--	--	-299	--	9	--	--	--	<0.0001	--	--
R4-M8	NDJ-349	01/12/2000	--	--	-375	--	8.98	--	--	--	<0.0001	--	--
	NDJ 396	04/12/2000	--	<0.0324	-400	--	8.48	--	--	--	<0.0002	1100	--
	NDK 354	08/15/2000	<0.031	--	-14	--	9.19	--	--	--	<0.0001	851	--
	NDM 229	10/16/2000	<0.0148	--	-206	--	9.51	--	--	--	0.00018	911	--
R5-M1	NDJ-311	01/11/2000	--	--	-325	--	9.68	--	--	--	<0.0001	--	--
	NDK 311	04/12/2000	--	--	-346	--	8.72	--	--	--	<0.0002	--	--
	NDK 796	08/16/2000	--	--	-234	--	9.86	--	--	--	<0.0001	--	--
	NDM 410	10/18/2000	--	--	-165	--	10.09	--	--	--	<0.0001	--	--
R5-M2	NDJ-316	01/11/2000	--	--	-362	--	9.81	--	--	--	<0.0001	1140	--
	NDJ 386	04/11/2000	1.750	--	-475	--	8.3	--	--	--	0.0016	1140	--
	NDK 372	08/16/2000	<0.031	--	-386	--	9.38	<0.34	--	--	<0.0001	1070	--
	NDK 382	10/17/2000	<0.0148	--	-154	--	9.85	--	--	--	<0.0001	1060	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDJ 391	04/11/2000	--	8.8	6.8	<0.00010[b]	--	--	--	<0.0004
	NDK 323	08/16/2000	--	14.7	3.22	<0.00010	--	--	--	<0.0012
	NDK 389	10/17/2000	--	15.7	3.28	<0.00010	--	--	--	<0.0012
R4-M4	NDJ-454	01/11/2000	--	11	3.73	<0.0001	--	--	--	<0.001
	NDJ 163	04/11/2000	--	9.7	9.17	<0.00010	--	--	--	<0.0004
	NDK 787	08/16/2000	--	15.5	17.7	<0.0001	--	--	--	0.0012
	NDM 402	10/17/2000	--	15.2	3.02	<0.00010	--	--	--	<0.0012
R4-M5	NDJ-460	01/11/2000	--	10.5	5.18	0.00043	--	--	--	<0.001
	NDK 306	04/12/2000	--	9.1	15.4	<0.00010	--	--	--	<0.0004
	NDK 783	08/16/2000	--	16	9.87	<0.0001	--	--	--	<0.0012
	NDM 377	10/17/2000	--	16	3.13	<0.00010	--	--	--	<0.0012
R4-M6	NDJ-341	01/11/2000	--	10.9	5.49	0.00042	--	--	--	0.0015
	NDJ 353	04/11/2000	--	9	6.39	<0.00010	--	--	--	<0.0004
	NDJ 354	04/11/2000	--	--	--	<0.00010	--	--	--	<0.0004
	NDK 360	08/16/2000	--	14.1	1.61	<0.00010	--	--	--	<0.0012
	NDK 368	08/16/2000	--	--	--	<0.0001	--	--	--	<0.0012
	NDM 234	10/16/2000	--	15.1	2.07	<0.00010	--	--	--	<0.0012
R4-M7	NDJ-345	01/12/2000	--	9.6	6.31	<0.0001	--	--	--	<0.001
	NDK 303	04/12/2000	--	9.6	4.51	<0.00010	--	--	--	<0.0004
	NDK 780	08/16/2000	--	--	7.8	<0.00010	--	--	--	<0.0012
	NDM 387	10/18/2000	--	16	1.84	<0.00010	--	--	--	<0.0012
R4-M8	NDJ-349	01/12/2000	--	10.8	2.24	<0.0001	--	--	--	<0.001
	NDJ 396	04/12/2000	--	8.7	3.23	<0.00010	--	--	--	<0.0004
	NDK 354	08/15/2000	--	15.5	5.42	<0.00010	--	--	--	<0.0012
	NDM 229	10/16/2000	--	16.2	3.98	<0.00010	--	--	--	<0.0012
R5-M1	NDJ-311	01/11/2000	--	10.9	2.8	<0.0001	--	--	--	<0.001
	NDK 311	04/12/2000	--	9.9	5.49	<0.00010	--	--	--	<0.0004
	NDK 796	08/16/2000	--	14.4	2.92	<0.0001	--	--	--	<0.0012
	NDM 410	10/18/2000	--	15.1	1.92	<0.00010	--	--	--	<0.0012
R5-M2	NDJ-316	01/11/2000	--	11.8	2.47	<0.0001	--	--	--	<0.001
	NDJ 386	04/11/2000	--	8.8	9.1	<0.0001[b]	--	--	--	<0.0004
	NDK 372	08/16/2000	--	13.5	2.46	<0.00010	--	--	--	<0.0012
	NDK 382	10/17/2000	--	14.6	5.31	<0.00010	--	--	--	<0.0012

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
R5-M3	NDJ-458	01/11/2000	42	<0.0004	--	--	--	0.4	2500	--	--	--
	NDK 308	04/12/2000	80	<0.0002	--	--	--	0.1	4400	--	--	--
	NDK 791	08/16/2000	36	<0.0003	--	--	--	0.35	3510	--	--	--
	NDM 405	10/17/2000	80	<0.0002	--	--	--	0.3	2210	--	--	--
R5-M4	NDJ-322	01/11/2000	27	<0.0004	--	146	183	0.27	2720	0.128	--	--
	NDJ 392	04/11/2000	31	<0.0002	--	132	157	0	4180	0.849	--	--
	NDK 324	08/16/2000	50	<0.0003	--	66.7	88.7	0.14	2050	0.0854	--	--
	NDK 390	10/17/2000	35	<0.0002	--	56.9	104	0.1	2890	<0.0116	--	--
R5-M5	NDJ-453	01/11/2000	41	<0.0004	--	--	--	0.22	2580	--	--	--
	NDJ 162	04/11/2000	51	<0.0002	--	--	--	2.44	2810	--	--	--
	NDK 788	08/16/2000	31	<0.0003	--	--	--	0.42	2040	--	--	--
	NDM 403	10/17/2000	67	<0.0002	--	--	--	0.17	2140	--	--	--
R5-M6	NDJ-461	01/11/2000	38	<0.0004	--	--	--	0.17	2590	--	--	--
	NDK 305	04/12/2000	45	<0.0002	--	--	--	0	4390	--	--	--
	NDK 784	08/16/2000	54	<0.0003	--	--	--	0.72	3240	--	--	--
	NDM 378	10/17/2000	34	<0.0002	--	--	--	0.72	2040	--	--	--
R5-M7	NDJ-342	01/11/2000	66	<0.0004	--	181	200	0.41	2650	--	--	--
	NDJ 352	04/11/2000	40	0.0002	--	150	203	1.34	2740	--	--	--
	NDK 361	08/16/2000	--	<0.0003	--	77.1	93.1	0.87	3270	0.804	--	--
	NDM 233	10/16/2000	51	<0.0002	--	65.4	99.3	0.3	2050	0.876	--	--
R5-M8	NDJ-346	01/12/2000	41	<0.0004	--	--	--	0.13	2690	--	--	--
	NDK 302	04/12/2000	35	<0.0002	--	--	--	0.05	4290	--	--	--
	NDK 781	08/16/2000	35	<0.0003	--	--	--	0.23	1970	--	--	--
	NDM 388	10/18/2000	34	<0.0002	--	--	--	--	2090	--	--	--
R5-M9	NDJ-348	01/12/2000	45	<0.0004	--	--	--	0.31	2640	--	--	--
	NDJ 397	04/12/2000	50	<0.0002	--	159	195	0.2	4350	0.423	--	--
	NDK 355	08/15/2000	75	<0.0003	--	66.9	107	0.48	3220	<0.0091	--	--
	NDM 230	10/16/2000	66	<0.0002	--	60.7	114	1.1	2150	<0.0116	--	--
R5-M10	NDJ-464	01/12/2000	45	<0.0004	--	--	--	0.25	2590	--	--	--
	NDJ 400	04/12/2000	90	<0.0002	--	--	--	0.06	4260	--	--	--
	NDK 776	08/15/2000	40	<0.0003	--	--	--	0.53	3440	--	--	--
	NDM 389	10/18/2000	21	<0.0002	--	--	--	--	2170	--	--	--
R6-M1	NDK 313	04/12/2000	48	0.0041	--	--	--	0.4	4380	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
R5-M3	NDJ-458	01/11/2000	--	--	--	--	<0.0004[b]	--	--	--	--	--	--
	NDK 308	04/12/2000	--	--	--	--	0.0046	--	--	--	--	--	--
	NDK 791	08/16/2000	--	--	--	--	0.0053	--	--	--	--	--	--
	NDM 405	10/17/2000	--	--	--	--	<0.0003	--	--	--	--	--	--
R5-M4	NDJ-322	01/11/2000	--	17.7	86.2	0.437	<0.0004	360	8.880	--	<0.028	--	<0.080
	NDJ 392	04/11/2000	--	16.5	73.6	0.515	0.0074	290	18.700	--	--	<0.0136	--
	NDK 324	08/16/2000	--	17.9	48.2	0.0811	0.0087	277	--	5.480	--	<0.0135	--
	NDK 390	10/17/2000	--	21.4	78.8	0.0807	0.010	277	--	5.620	--	<0.0136	--
R5-M5	NDJ-453	01/11/2000	--	--	--	--	~0.0074	--	--	--	--	--	--
	NDJ 162	04/11/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 788	08/16/2000	--	--	--	--	0.006	--	--	--	--	--	--
	NDM 403	10/17/2000	--	--	--	--	<0.0003	--	--	--	--	--	--
R5-M6	NDJ-461	01/11/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 305	04/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 784	08/16/2000	--	--	--	--	0.0046	--	--	--	--	--	--
	NDM 378	10/17/2000	--	--	--	--	0.0064	--	--	--	--	--	--
R5-M7	NDJ-342	01/11/2000	--	18.3	104	--	<0.0004[b]	348	6.900	--	<0.028	--	<0.080
	NDJ 352	04/11/2000	--	14.0	90.5	--	<0.0004[b]	289	10.200	--	--	<0.0272	--
	NDK 361	08/16/2000	--	17.4	51.9	0.226	0.0091	283	--	5.460	--	<0.027	--
	NDM 233	10/16/2000	--	17.2	65.3	0.183	0.0078	286	--	2.180	--	<0.0136	--
R5-M8	NDJ-346	01/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 302	04/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 781	08/16/2000	--	--	--	--	0.0063	--	--	--	--	--	--
	NDM 388	10/18/2000	--	--	--	--	0.0083	--	--	--	--	--	--
R5-M9	NDJ-348	01/12/2000	--	--	--	--	0.0068	--	--	--	--	--	--
	NDJ 397	04/12/2000	--	12.6	88.0	0.324	<0.0004	272	--	--	--	--	--
	NDK 355	08/15/2000	--	14.7	58.8	0.0612	0.0043	308	--	3.840	--	<0.027	--
	NDM 230	10/16/2000	--	14.5	85.4	0.0577	0.0051	289	--	2.960	--	<0.0136	--
R5-M10	NDJ-464	01/12/2000	--	--	--	--	0.0068	--	--	--	--	--	--
	NDJ 400	04/12/2000	--	--	--	--	<0.0004	--	--	--	--	--	--
	NDK 776	08/15/2000	--	--	--	--	0.0061	--	--	--	--	--	--
	NDM 389	10/18/2000	--	--	--	--	0.0074	--	--	--	--	--	--
R6-M1	NDK 313	04/12/2000	--	--	--	--	0.0535	--	--	--	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
R5-M3	NDJ-458	01/11/2000	--	--	-238	--	9.8	--	--	--	<0.0001	--	--
	NDK 308	04/12/2000	--	--	-378	--	8.06	--	--	--	0.001	--	--
	NDK 791	08/16/2000	--	--	-6	--	9.17	--	--	--	<0.0001	--	--
	NDM 405	10/17/2000	--	--	-345	--	9.22	--	--	--	<0.0001	--	--
R5-M4	NDJ-322	01/11/2000	--	--	-400	--	10.28	--	--	--	<0.0001	1300	--
	NDJ 392	04/11/2000	<0.0148	--	-445	--	8.84	--	--	--	<0.0002	1050	--
	NDK 324	08/16/2000	<0.0155	--	-316	--	9.52	--	--	--	<0.0001	835	--
	NDK 390	10/17/2000	<0.0148	--	-237	--	9.96	--	--	--	<0.0001	886	--
R5-M5	NDJ-453	01/11/2000	--	--	-232	--	9.92	--	--	--	<0.0001	--	--
	NDJ 162	04/11/2000	--	--	78	--	7.94	--	--	--	0.00059	--	--
	NDK 788	08/16/2000	--	--	-291	--	9.1	--	--	--	<0.0001	--	--
	NDM 403	10/17/2000	--	--	-437	--	8.86	--	--	--	<0.0001	--	--
R5-M6	NDJ-461	01/11/2000	--	--	-332	--	8.3	--	--	--	<0.0001	--	--
	NDK 305	04/12/2000	--	--	-370	--	7.97	--	--	--	<0.0002	--	--
	NDK 784	08/16/2000	--	--	33	--	8.97	--	--	--	<0.0001	--	--
	NDM 378	10/17/2000	--	--	-262	--	9.22	--	--	--	<0.0001	--	--
R5-M7	NDJ-342	01/11/2000	--	--	-337	--	9.21	--	--	--	<0.0001	1170	--
	NDJ 352	04/11/2000	<0.0296	--	145	--	8.58	--	--	--	<0.0002	1120	--
	NDK 361	08/16/2000	<0.031	--	-61	--	8.89	--	--	--	<0.0001	859	--
	NDM 233	10/16/2000	<0.0148	--	-354	--	8.95	--	--	--	<0.0001	838	--
R5-M8	NDJ-346	01/12/2000	--	--	-423	--	8.64	--	--	--	<0.0001	--	--
	NDK 302	04/12/2000	--	--	-381	--	8.27	--	--	--	<0.0002	--	--
	NDK 781	08/16/2000	--	--	-178	--	9.52	--	--	--	<0.0001	--	--
	NDM 388	10/18/2000	--	--	-141	--	9.5	--	--	--	<0.0001	--	--
R5-M9	NDJ-348	01/12/2000	--	--	-345	--	9.2	--	--	--	<0.0001	--	--
	NDJ 397	04/12/2000	--	<0.0324	-296	--	8.81	--	--	--	<0.0002	1070	--
	NDK 355	08/15/2000	<0.031	--	109	--	9.2	<0.32	--	--	<0.0001	837	--
	NDM 230	10/16/2000	<0.0148	--	-69	--	9.42	--	--	--	<0.0001	901	--
R5-M10	NDJ-464	01/12/2000	--	--	-349	--	9.08	--	--	--	<0.0001	--	--
	NDJ 400	04/12/2000	--	--	-315	--	8.07	--	--	--	<0.0002	--	--
	NDK 776	08/15/2000	--	--	229	--	8.95	--	--	--	<0.0001	--	--
	NDM 389	10/18/2000	--	--	-65	--	9.4	--	--	--	0.00033	--	--
R6-M1	NDK 313	04/12/2000	--	--	-29	--	6.25	--	--	--	0.002	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
R5-M3	NDJ-458	01/11/2000	--	11.8	1.43	<0.0001	--	--	--	<0.001
	NDK 308	04/12/2000	--	9.7	5.79	<0.00010	--	--	--	0.00068
	NDK 791	08/16/2000	--	15.8	9.87	<0.0001	--	--	--	<0.0012
	NDM 405	10/17/2000	--	16.1	6.85	<0.00010	--	--	--	<0.0012
R5-M4	NDJ-322	01/11/2000	--	11.9	1.63	<0.0001	--	--	--	<0.001
	NDJ 392	04/11/2000	--	9.2	6.81	<0.0001	--	--	--	<0.0004
	NDK 324	08/16/2000	--	15.7	1.83	<0.0001	--	--	--	<0.0012
	NDK 390	10/17/2000	--	16	0.67	<0.00010	--	--	--	<0.0012
R5-M5	NDJ-453	01/11/2000	--	11.1	3.84	0.00046	--	--	--	<0.001
	NDJ 162	04/11/2000	--	10.2	10.6	<0.00010	--	--	--	<0.00040
	NDK 788	08/16/2000	--	18.1	11.1	<0.0001	--	--	--	<0.0012
	NDM 403	10/17/2000	--	15.3	3.28	<0.00010	--	--	--	<0.0012
R5-M6	NDJ-461	01/11/2000	--	10.5	4.36	<0.0001	--	--	--	<0.001
	NDK 305	04/12/2000	--	9.3	2.18	<0.00010	--	--	--	<0.0004
	NDK 784	08/16/2000	--	16.6	4.95	<0.0001	--	--	--	<0.0012
	NDM 378	10/17/2000	--	15.4	1.93	<0.00010	--	--	--	<0.0012
R5-M7	NDJ-342	01/11/2000	--	11.4	5.17	<0.0001	--	--	--	<0.001
	NDJ 352	04/11/2000	--	9.1	4.15	<0.00010	--	--	--	<0.0004
	NDK 361	08/16/2000	--	14.1	2.13	<0.0001	--	--	--	<0.0012
	NDM 233	10/16/2000	--	15.1	1.99	<0.00010	--	--	--	<0.0012
R5-M8	NDJ-346	01/12/2000	--	10.8	5.76	<0.0001	--	--	--	<0.001
	NDK 302	04/12/2000	--	9.8	2.8	<0.00010	--	--	--	<0.0004
	NDK 781	08/16/2000	--	15	9.6	<0.00010	--	--	--	0.0014
	NDM 388	10/18/2000	--	16.5	1.56	<0.00010	--	--	--	<0.0012
R5-M9	NDJ-348	01/12/2000	--	10.9	3.37	<0.0001	--	--	--	<0.001
	NDJ 397	04/12/2000	--	8.8	2.7	<0.0001	--	--	--	0.00041
	NDK 355	08/15/2000	--	15.6	5.05	<0.00010	--	--	--	<0.0012
	NDM 230	10/16/2000	--	16.2	3.43	<0.00010	--	--	--	<0.0012
R5-M10	NDJ-464	01/12/2000	--	11.3	2.84	<0.0001	--	--	--	<0.001
	NDJ 400	04/12/2000	--	10.1	5.32	<0.00010	--	--	--	<0.0004
	NDK 776	08/15/2000	--	15.7	4.49	<0.0001	--	--	--	<0.0012
	NDM 389	10/18/2000	--	16.4	1.15	<0.00010	--	--	--	0.0014
R6-M1	NDK 313	04/12/2000	--	11.1	4.65	0.0093	--	--	--	0.126

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDM 411	10/18/2000	150	0.0014	--	--	--	--	--	--	--	--
R6-M2	NDJ-317	01/11/2000	18	0.0037	--	135	160	0.27	2690	<0.0089	--	--
	NDJ 469	02/29/2000	32	0.0017	--	117	137	0.18	2420	<0.0089	0.177	--
	NDJ 387	04/11/2000	70	0.00041	--	117	141	0.36	4240	0.616	--	--
	NDK 373	08/16/2000	50	0.0023	--	111	86.9	0.15	2260	<0.0091	--	--
	NDK 381	10/17/2000	30	0.0025	--	106	90.3	0.47	2250	<0.0116	--	--
R6-M3	NDJ 470	02/29/2000	--	0.00066	--	295	--	--	2500	<0.0089	--	--
	NDJ 160	04/11/2000	171	0.0012	--	268	176	--	2700	0.261	--	--
	NDK 325	08/16/2000	--	0.0011	--	224	151	0.55	2550	<0.0091	--	--
	NDM 413	10/18/2000	--	0.001	--	--	--	--	2590	--	--	--
R6-M4	NDJ-343	01/11/2000	54	0.0234	--	139	166	0.58	2540	<0.0089	--	--
	NDJ 156	03/01/2000	47	0.0228	--	146	159	1.5	2540	<0.0089	0.143	--
	NDJ 158	03/01/2000	--	0.0262	--	147	157	--	--	<0.0089	0.138	--
	NDJ 351	04/11/2000	141	0.00073	--	234	198	1.45	3090	<0.0074	--	--
	NDK 362	08/16/2000	--	0.00062	--	105	88.3	--	--	0.304	--	--
	NDM 232	10/16/2000	51	0.00083	--	116	94.6	2.6	2210	0.116	--	--
R6-M5	NDJ-347	01/12/2000	105	0.0085	--	--	--	0.35	2660	--	--	--
	NDJ 157	03/01/2000	80	0.004	--	166	169	0.4	2560	<0.0089	0.069	--
	NDJ 398	04/12/2000	100	0.0024	--	170	190	0.2	4350	0.353	--	--
	NDK 356	08/15/2000	73	0.0054	--	92.4	92.7	0.47	3340	0.280	--	--
	NDM 231	10/16/2000	96	0.002	--	99.5	99.0	0.4	2120	0.0916	--	--
R6-M6	NDM 415	10/18/2000	75	0.0132	--	--	--	0.13	2110	--	--	--
R7-M1	NDJ 471	02/29/2000	48	0.0016	--	176	150	--	2430	<0.0089	0.311	--
	NDJ 381	04/11/2000	60	0.006	--	155	140	0.9	4440	<0.0074	--	--
R7-M2	NDJ 472	03/01/2000	--	<0.0004	--	325	--	--	--	<0.0089	--	--
	NDJ 375	04/11/2000	66	0.00043	--	220	182	--	1539	<0.0074	--	--
R8-M1	NDJ 380	04/11/2000	71	0.0039	--	178	164	--	4440	<0.0074	--	--
R9-M1	NDJ-325	01/12/2000	99	0.0028	--	185	168	--	2550	<0.0089	--	--
	NDJ 468	02/29/2000	51	0.0028	--	178	164	0.35	2590	<0.0089	0.361	--
	NDJ 378	04/11/2000	90	0.0034	--	188	176	0.58	4570	<0.0074	--	--
	NDJ 379	04/11/2000	--	0.0034	--	196	172	--	--	<0.0074	--	--
	NDK 380	10/16/2000	103	0.0032	--	132	96.8	--	2210	<0.0116	--	--
R10-M1	NDJ-324	01/12/2000	52	0.0037	--	191	166	--	2440	<0.0089	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDM 411	10/18/2000	--	--	--	--	0.0086	--	--	--	--	--	--
R6-M2	NDJ-317	01/11/2000	--	19.5	68.7	0.834	<0.0004	363	10.200	--	<0.028	--	<0.080
	NDJ 469	02/29/2000	--	20.5	68.0	0.306	0.0054	328	--	--	--	--	--
	NDJ 387	04/11/2000	--	18.2	72.0	0.840	~0.0061	288	~24.000	--	--	0.046	--
	NDK 373	08/16/2000	--	19.3	46.1	0.293	0.0048	301	--	5.850	--	<0.0135	--
	NDK 381	10/17/2000	--	22.1	58.3	0.362	0.013	311	--	5.440	--	<0.0136	--
R6-M3	NDJ 470	02/29/2000	--	15.4	65.1	5.580	0.0505	229	--	--	--	--	--
	NDJ 160	04/11/2000	--	13.6	62.2	4.300	~0.0342	218	~0.657	--	--	0.0377	--
	NDK 325	08/16/2000	--	12.8	52.0	2.740	0.0485	209	--	0.644	--	<0.027	--
	NDM 413	10/18/2000	--	--	--	--	0.0384	--	--	--	--	--	--
R6-M4	NDJ-343	01/11/2000	--	18.8	77.3	~0.615	~0.0166	350	8.850	--	<0.028	--	<0.080
	NDJ 156	03/01/2000	--	16.9	77.7	0.881	0.0143	310	--	--	--	--	--
	NDJ 158	03/01/2000	--	17.8	77.7	0.862	0.0155	312	--	--	--	--	--
	NDJ 351	04/11/2000	--	15.7	90.1	3.400	~0.0221	288	8.700	--	--	1.080	--
	NDK 362	08/16/2000	--	14.6	47.0	1.400	0.0174	277	--	6.120	--	0.156	--
	NDM 232	10/16/2000	--	16.3	50.7	1.240	0.0205	296	--	2.760	--	0.312	--
R6-M5	NDJ-347	01/12/2000	--	--	--	--	0.0535	--	--	--	--	--	--
	NDJ 157	03/01/2000	--	16.0	82.4	4.270	0.047	305	--	--	--	--	--
	NDJ 398	04/12/2000	--	13.8	82.8	3.590	0.0334	276	--	--	--	--	--
	NDK 356	08/15/2000	--	15.1	46.9	1.600	0.0285	290	--	6.730	--	<0.027	--
	NDM 231	10/16/2000	--	17.3	48.5	2.620	0.0274	292	--	3.780	--	0.501	--
R6-M6	NDM 415	10/18/2000	--	--	--	--	0.0143	--	--	--	--	--	--
R7-M1	NDJ 471	02/29/2000	--	17.5	64.6	2.060	0.0516	315	--	--	--	--	--
	NDJ 381	04/11/2000	--	19.4	72.5	0.852	~0.0385	306	~21.400	--	--	0.336	--
R7-M2	NDJ 472	03/01/2000	--	16.1	79.7	1.050	0.0949	282	--	--	--	--	--
	NDJ 375	04/11/2000	--	14.7	66.5	0.168	~0.0487	285	6.000	--	--	0.131	--
R8-M1	NDJ 380	04/11/2000	--	14.8	68.9	1.200	~0.066	274	9.380	--	--	0.649	--
R9-M1	NDJ-325	01/12/2000	--	15.4	68.7	~0.932	0.0282	342	2.540	--	--	--	4.560
	NDJ 468	02/29/2000	--	13.2	73.7	1.590	0.0469	299	--	--	--	--	--
	NDJ 378	04/11/2000	--	13.9	76.1	1.890	~0.0629	273	7.950	--	--	0.789	--
	NDJ 379	04/11/2000	--	14.7	80.4	1.910	~0.0615	288	7.950	--	--	0.804	--
	NDK 380	10/16/2000	--	14.5	52.0	1.040	0.0134	280	--	3.740	--	<0.0136	--
R10-M1	NDJ-324	01/12/2000	--	14.7	73.4	~0.945	0.0296	364	3.240	--	--	--	4.250

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDM 411	10/18/2000	--	--	14	--	6.58	--	--	--	0.0016	--	--
R6-M2	NDJ-317	01/11/2000	--	--	-198	--	9.22	--	--	--	<0.0001	1150	--
	NDJ 469	02/29/2000	--	<0.012	-212	--	9.37	--	--	--	<0.0001	1070	--
	NDJ 387	04/11/2000	<0.0296	--	-283	--	8.43	--	--	--	<0.0002	1100	--
	NDK 373	08/16/2000	<0.0155	--	-342	--	8.78	--	--	--	<0.0001	980	--
	NDK 381	10/17/2000	<0.0148	--	-214	--	8.95	--	--	--	<0.0001	998	--
R6-M3	NDJ 470	02/29/2000	--	0.214	-123	--	6.47	--	--	--	0.0024	--	--
	NDJ 160	04/11/2000	0.229	--	65	--	6.9	--	--	--	0.0017	814	--
	NDK 325	08/16/2000	<0.031	--	-142	--	6.76	--	--	--	0.00079	717	--
	NDM 413	10/18/2000	--	--	-93	--	7.09	--	--	--	0.0009	--	--
R6-M4	NDJ-343	01/11/2000	--	--	-302	--	8.74	--	--	--	<0.0001	1090	--
	NDJ 156	03/01/2000	--	<0.012	-103	--	8.11	--	--	--	<0.0001	1110	--
	NDJ 158	03/01/2000	--	<0.012	--	--	--	--	--	--	<0.0001	1100	--
	NDJ 351	04/11/2000	6.260	--	152	--	7.29	--	--	--	0.0151	1230	--
	NDK 362	08/16/2000	1.090	--	--	--	--	--	--	--	0.00084	853	--
	NDM 232	10/16/2000	4.450	--	86	--	6.57	--	--	--	0.00037	876	--
R6-M5	NDJ-347	01/12/2000	--	--	-257	--	7.94	--	--	--	0.0001	--	--
	NDJ 157	03/01/2000	--	<0.012	-135	--	8.28	--	--	--	<0.0001	1110	--
	NDJ 398	04/12/2000	--	<0.0324	-66	--	8.24	--	--	--	0.00092	1110	--
	NDK 356	08/15/2000	0.0474	--	-42	--	8.31	--	--	--	<0.0001	845	--
	NDM 231	10/16/2000	2.760	--	-76	--	7.26	--	--	--	0.00025	845	--
R6-M6	NDM 415	10/18/2000	--	--	-113	--	7.08	--	--	--	0.00035	--	--
R7-M1	NDJ 471	02/29/2000	--	2.810	-54	--	6.05	--	--	--	0.0013	1090	--
	NDJ 381	04/11/2000	5.530	--	24	--	6.93	--	--	--	0.0031	1140	--
R7-M2	NDJ 472	03/01/2000	--	--	--	--	--	--	--	--	0.176	--	--
	NDJ 375	04/11/2000	7.980	--	73	--	6.92	--	--	--	0.014	1240	--
R8-M1	NDJ 380	04/11/2000	8.760	--	17	--	6.72	--	--	--	0.0053	1150	--
R9-M1	NDJ-325	01/12/2000	--	--	110	--	6.57	--	--	--	0.00049	1060	--
	NDJ 468	02/29/2000	--	0.301	36	--	6.5	--	--	--	0.00039	1100	--
	NDJ 378	04/11/2000	6.580	--	-25	--	6.7	--	--	--	0.0048	1180	--
	NDJ 379	04/11/2000	6.470	--	--	--	--	--	--	--	0.0054	1160	--
	NDK 380	10/16/2000	17.500	--	201	--	6.15	--	--	--	<0.0001	872	--
R10-M1	NDJ-324	01/12/2000	--	--	51	--	6.07	--	--	--	0.00037	1070	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDM 411	10/18/2000	--	14.4	--	0.0375	--	--	--	0.0448
R6-M2	NDJ-317	01/11/2000	--	11.5	2.24	<0.0001	--	--	--	<0.001
	NDJ 469	02/29/2000	--	9.7	150	<0.0001	--	--	--	<0.001
	NDJ 387	04/11/2000	--	9.1	7.7	<0.0001[b]	--	--	--	<0.0004
	NDK 373	08/16/2000	--	13.8	13.6	<0.00010	--	--	--	<0.0012
	NDK 381	10/17/2000	--	13.3	6.53	<0.00010	--	--	--	<0.0012
R6-M3	NDJ 470	02/29/2000	--	9.2	150	0.250	--	--	--	0.0455
	NDJ 160	04/11/2000	--	8.9	--	~0.169	--	--	--	0.0337
	NDK 325	08/16/2000	--	16.1	283	0.158	--	--	--	0.0522
	NDM 413	10/18/2000	--	16.3	>1000	0.119	--	--	--	0.0542
R6-M4	NDJ-343	01/11/2000	--	11.6	20.4	0.0203	--	--	--	0.0848
	NDJ 156	03/01/2000	--	7.8	--	0.0378	--	--	--	0.0955
	NDJ 158	03/01/2000	--	--	--	0.0425	--	--	--	0.0868
	NDJ 351	04/11/2000	--	8.4	97.5	0.050	--	--	--	0.0039
	NDK 362	08/16/2000	--	--	--	0.006	--	--	--	0.0051
	NDM 232	10/16/2000	--	15.5	28.6	0.0046	--	--	--	0.0027
R6-M5	NDJ-347	01/12/2000	--	11.3	1.45	0.0147	--	--	--	0.0084
	NDJ 157	03/01/2000	--	7.9	--	0.0131	--	--	--	0.0235
	NDJ 398	04/12/2000	--	8.7	3.6	0.0099	--	--	--	0.0023
	NDK 356	08/15/2000	--	16.5	0.62	0.0053	--	--	--	0.0017
	NDM 231	10/16/2000	--	16.4	4.56	0.0046	--	--	--	0.013
R6-M6	NDM 415	10/18/2000	--	16.5	20.3	0.0097	--	--	--	<0.0012
R7-M1	NDJ 471	02/29/2000	--	8.7	172	0.0453	--	--	--	0.093
	NDJ 381	04/11/2000	--	8.5	55	~0.0406	--	--	--	0.103
R7-M2	NDJ 472	03/01/2000	--	--	--	0.376	--	--	--	0.0167
	NDJ 375	04/11/2000	--	11	25	~0.0579	--	--	--	0.0335
R8-M1	NDJ 380	04/11/2000	--	9.7	2.05	~0.0481	--	--	--	0.0813
R9-M1	NDJ-325	01/12/2000	--	9.3	--	0.012	--	--	--	0.0974
	NDJ 468	02/29/2000	--	8.1	4.53	0.0232	--	--	--	0.108
	NDJ 378	04/11/2000	--	9.5	1.56	~0.0807	--	--	--	0.0745
	NDJ 379	04/11/2000	--	--	--	~0.0818	--	--	--	0.074
	NDK 380	10/16/2000	--	14.3	39	0.0044	--	--	--	0.122
R10-M1	NDJ-324	01/12/2000	--	10.3	>1000	0.0054	--	--	--	0.163

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDJ 467	02/29/2000	78	0.0025	--	199	178	0.28	2500	<0.0089	0.401	--
	NDJ 377	04/11/2000	110	0.0038	--	197	199	0.23	4490	<0.0074	--	--
	NDJ 175	08/15/2000	76	0.0047	--	110	101	0.38	2160	<0.0091	--	--
	NDK 378	10/16/2000	87	0.0031	--	120	100	1.4	2140	<0.0116	--	--
	NDK 379	10/16/2000	--	0.0034	--	120	100	--	--	<0.0116	--	--
R11-M1	NDJ-308	01/12/2000	>70	0.0035	--	207	186	--	2550	2.040	--	--
	NDJ 466	02/29/2000	153	0.0017	--	228	53.8	1.6	1727	<0.0089	0.361	--
	NDJ 376	04/11/2000	100	0.0022	--	211	169	0.7	4070	<0.0074	--	--
	NDK 319	08/16/2000	120	0.0022	--	130	122	--	2130	<0.0091	--	--
	NDK 377	10/16/2000	130	0.0013	--	123	102	--	2080	<0.0116	--	--
T00-01	NDK 435	08/01/2000	185	0.0193	0.540	180	134	0.66	4980	<0.0091	0.691	93.86
	NDM 476	11/02/2000	175	0.0194	0.351	127	87.5	3.1	2130	<0.0117	0.610	~71.44
T00-17	NDK 401	08/24/2000	--	0.00044	--	--	--	--	--	0.0497	--	--
T00-18	NDK 402	08/24/2000	--	0.00062	--	--	--	--	--	0.0983	--	--
	NDJ 861	10/30/2000	457	0.00046	--	--	--	--	5160	<0.0117	--	--
T00-19	NDK 403	08/24/2000	--	<0.0003	--	--	--	--	--	0.044	--	--
T1-D	NDJ-327	01/11/2000	321	0.0097	--	322	191	0.63	3200	<0.0089	--	--
	NDJ 361	04/11/2000	243	0.0069	--	280	160	0.45	3100	<0.0074	--	--
	NDK 364	08/16/2000	250	0.0086	--	224	91.7	1.16	3830	<0.0091	--	--
	NDM 240	10/17/2000	293	0.0094	--	253	106	0.658	2570	<0.0116	--	--
T1-S	NDJ-326	01/11/2000	324	0.0097	--	335	187	0.77	3330	<0.0089	--	--
	NDJ 360	04/11/2000	245	0.0075	--	269	161	0.62	3150	<0.0074	--	--
	NDK 363	08/16/2000	256	0.0088	--	224	91.9	0.83	3830	<0.0091	--	--
	NDM 238	10/17/2000	292	0.0097	--	269	115	1.1	2680	<0.0116	--	--
	NDM 239	10/17/2000	--	0.0099	--	266	115	--	--	<0.0116	--	--
T2-D	NDJ-329	01/11/2000	390	<0.0004	--	316	201	0.46	3170	28.800	--	--
	NDJ 363	04/11/2000	323	<0.0002	--	306	171	0.4	3130	13.800	--	--
	NDJ 364	04/11/2000	--	<0.0002	--	288	168	--	--	12.700	--	--
	NDK 375	08/16/2000	273	<0.0003	--	231	94.2	0.99	3970	1.370	--	--
	NDM 242	10/17/2000	313	<0.0002	--	269	111	0.572	2620	2.110	--	--
T2-S	NDJ-328	01/11/2000	303	<0.0004	--	266	199	0.41	3090	21.800	--	--
	NDJ 362	04/11/2000	264	0.001	--	285	159	0.42	3150	7.730	--	--
	NDK 374	08/16/2000	--	<0.0003	--	205	93.2	0.86	1390	4.630	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDJ 467	02/29/2000	--	12.1	78.5	1.070	0.0594	284	--	--	--	--	--
	NDJ 377	04/11/2000	--	13.5	89.1	1.490	~0.0446	297	6.000	--	--	<0.0272	--
	NDJ 175	08/15/2000	--	12.1	49.6	1.050	0.026	284	--	6.310	--	<0.027	--
	NDK 378	10/16/2000	--	13.5	52.1	1.310	0.017	294	--	5.180	--	<0.0136	--
	NDK 379	10/16/2000	--	13.4	51.6	1.310	0.0176	290	--	5.080	--	0.0176	--
R11-M1	NDJ-308	01/12/2000	--	13.9	75.7	~1.010	0.0326	330	3.020	--	--	--	4.630
	NDJ 466	02/29/2000	--	7.30	58.1	0.0177	0.0427	108	--	--	--	--	--
	NDJ 376	04/11/2000	--	9.16	69.9	0.587	~0.0515	215	2.410	--	--	<0.0272	--
	NDK 319	08/16/2000	--	10.5	49.4	1.250	0.0341	259	--	4.190	--	0.0531	--
	NDK 377	10/16/2000	--	11.9	47.0	1.050	0.0264	284	--	2.940	--	0.0343	--
T00-01	NDK 435	08/01/2000	80.05	35.8	55.2	4.280	0.163	430	--	--	--	--	--
	NDM 476	11/02/2000	58.48	28.3	37.8	2.440	0.150	317	--	--	--	--	--
T00-17	NDK 401	08/24/2000	--	--	--	0.0809	0.0448	--	--	--	--	--	--
T00-18	NDK 402	08/24/2000	--	--	--	1.760	0.340	--	--	--	--	--	--
	NDJ 861	10/30/2000	--	--	--	0.593	0.514	--	--	--	--	--	--
T00-19	NDK 403	08/24/2000	--	--	--	0.513	0.452	--	--	--	--	--	--
T1-D	NDJ-327	01/11/2000	--	19.9	84.3	0.426	0.0604	344	0.505	--	<0.028	--	91.200
	NDJ 361	04/11/2000	--	16.6	73.0	0.384	~0.0511	275	0.358	--	--	<0.0272	--
	NDK 364	08/16/2000	--	17.0	56.0	0.203	0.0574	282	--	0.211	--	<0.027	--
	NDM 240	10/17/2000	--	18.3	60.7	0.266	0.0624	282	--	0.181	--	<0.0136	--
T1-S	NDJ-326	01/11/2000	--	20.7	88.1	0.259	0.0561	351	0.373	--	<0.028	--	88.300
	NDJ 360	04/11/2000	--	16.4	70.4	0.255	~0.0501	267	0.361	--	--	<0.0272	--
	NDK 363	08/16/2000	--	16.9	55.5	0.0792	0.0536	277	--	0.177	--	<0.027	--
	NDM 238	10/17/2000	--	19.2	63.7	0.112	0.0599	283	--	0.177	--	<0.0136	--
	NDM 239	10/17/2000	--	19.2	63.4	0.108	0.0577	282	--	0.186	--	<0.0136	--
T2-D	NDJ-329	01/11/2000	--	18.4	92.4	0.627	0.0164	349	7.200	--	2.560	--	12.000
	NDJ 363	04/11/2000	--	17.2	84.9	0.537	~0.022	307	6.250	--	--	1.330	--
	NDJ 364	04/11/2000	--	16.0	79.9	0.531	~0.0232	278	6.250	--	--	1.290	--
	NDK 375	08/16/2000	--	16.3	56.2	0.299	0.0363	277	--	2.150	--	0.656	--
	NDM 242	10/17/2000	--	18.9	63.0	0.415	0.0327	281	--	1.160	--	0.733	--
T2-S	NDJ-328	01/11/2000	--	17.2	84.8	0.835	0.016	342	4.020	--	1.100	--	23.300
	NDJ 362	04/11/2000	--	16.9	76.4	0.283	~0.0381	288	1.140	--	--	0.0392	--
	NDK 374	08/16/2000	--	16.7	55.6	0.288	0.0285	268	--	1.950	--	0.248	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDJ 467	02/29/2000	--	0.0918	-111	--	6.67	--	--	--	0.00015	1090	--
	NDJ 377	04/11/2000	0.695	--	-60	--	6.8	--	--	--	0.00056	1140	--
	NDJ 175	08/15/2000	0.950	--	-58	--	6.61	--	--	--	0.0002	864	--
	NDK 378	10/16/2000	17.500	--	189	--	6.58	--	--	--	<0.0001	843	--
	NDK 379	10/16/2000	17.900	--	--	--	--	--	--	--	<0.0001	841	--
R11-M1	NDJ-308	01/12/2000	--	--	-30	--	7.17	--	--	--	<0.0001	1100	--
	NDJ 466	02/29/2000	--	0.772	34	--	6.65	--	--	--	0.0036	713	--
	NDJ 376	04/11/2000	1.060	--	57	--	6.65	--	--	--	0.0051	1020	--
	NDK 319	08/16/2000	0.452	--	-139	--	6.47	--	--	--	0.00056	831	--
	NDK 377	10/16/2000	6.070	--	178	--	6.57	--	--	--	<0.00010	829	--
T00-01	NDK 435	08/01/2000	--	55.100	162	<0.26	6.43	<0.83	<4.27	645.38	0.0109	1060	2400
	NDM 476	11/02/2000	--	~51.100	131	<0.28	6.1	<0.85	<4.31	758.97	0.0121	694	1700
T00-17	NDK 401	08/24/2000	--	--	--	--	--	--	--	--	0.0608	--	--
T00-18	NDK 402	08/24/2000	--	--	--	--	--	--	--	--	0.0136	--	--
	NDJ 861	10/30/2000	--	96.900	207	--	6.75	--	--	--	0.103	--	--
T00-19	NDK 403	08/24/2000	--	--	--	--	--	--	--	--	0.0474	--	--
T1-D	NDJ-327	01/11/2000	--	--	206	--	6.36	--	--	--	0.0411	1340	--
	NDJ 361	04/11/2000	34.200	--	100	--	6.45	--	--	--	0.0546	1170	--
	NDK 364	08/16/2000	14.300	--	172	--	6.7	--	--	--	0.0125	960	--
	NDM 240	10/17/2000	12.900	--	188	--	6.54	--	--	--	0.0179	961	--
T1-S	NDJ-326	01/11/2000	--	--	196	--	6.37	--	--	--	0.0356	1310	--
	NDJ 360	04/11/2000	35.300	--	98	--	6.54	--	--	--	0.0543	1190	--
	NDK 363	08/16/2000	13.700	--	157	--	6.87	--	--	--	0.0135	963	--
	NDM 238	10/17/2000	12.500	--	2.03	--	6.59	--	--	--	0.0255	967	--
	NDM 239	10/17/2000	12.500	--	--	--	--	--	--	--	0.0256	967	--
T2-D	NDJ-329	01/11/2000	--	--	-165	--	7.21	--	--	--	0.0178	1350	--
	NDJ 363	04/11/2000	12.200	--	76	--	7.23	--	--	--	0.0439	1180	--
	NDJ 364	04/11/2000	12.000	--	--	--	--	--	--	--	0.0438	1160	--
	NDK 375	08/16/2000	5.680	--	-19	--	7	--	--	--	0.010	967	--
	NDM 242	10/17/2000	6.670	--	-12	--	6.79	--	--	--	0.0173	960	--
T2-S	NDJ-328	01/11/2000	--	--	-177	--	7.44	--	--	--	0.0152	1320	--
	NDJ 362	04/11/2000	30.400	--	100	--	6.67	--	--	--	0.0517	1160	--
	NDK 374	08/16/2000	3.330	--	-47	--	7.13	--	--	--	0.0066	938	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDJ 467	02/29/2000	--	9.5	6.94	0.0598	--	--	--	0.123
	NDJ 377	04/11/2000	--	9	1.15	~0.069	--	--	--	0.116
	NDJ 175	08/15/2000	--	18.5	>1000	0.0088	--	--	--	0.142
	NDK 378	10/16/2000	--	14.5	57	0.0041	--	--	--	0.168
	NDK 379	10/16/2000	--	--	--	0.0042	--	--	--	0.165
R11-M1	NDJ-308	01/12/2000	--	11	--	0.0228	--	--	--	0.114
	NDJ 466	02/29/2000	--	6	11.9	0.144	--	--	--	0.132
	NDJ 376	04/11/2000	--	7.9	4.56	~0.0676	--	--	--	0.112
	NDK 319	08/16/2000	--	19.7	>1000	0.0129	--	--	--	0.118
	NDK 377	10/16/2000	--	15.9	311	0.0068	--	--	--	0.117
T00-01	NDK 435	08/01/2000	<2.6	19.4	4.96	0.176	--	--	--	0.597
	NDM 476	11/02/2000	<1.7	14.1	44.5	0.144	--	--	--	0.604
T00-17	NDK 401	08/24/2000	<1.1	--	--	0.638	--	--	--	<0.0012
T00-18	NDK 402	08/24/2000	<1	--	--	1.110	384.14	19.55	379.43	<0.0012
	NDJ 861	10/30/2000	<1.7	13.3	396	1.430	--	--	--	<0.0013
T00-19	NDK 403	08/24/2000	<1	--	--	0.935	305.74	13.36	307.65	<0.0012
T1-D	NDJ-327	01/11/2000	--	9.8	12.2	0.739	--	--	--	0.341
	NDJ 361	04/11/2000	--	8.4	4.71	0.466	--	--	--	0.236
	NDK 364	08/16/2000	--	14.1	28.1	0.266	--	--	--	0.318
	NDM 240	10/17/2000	--	13.7	18.1	0.312	--	--	--	0.367
T1-S	NDJ-326	01/11/2000	--	7.9	10.2	0.753	--	--	--	0.344
	NDJ 360	04/11/2000	--	8.1	4.67	0.451	--	--	--	0.217
	NDK 363	08/16/2000	--	14.3	0.56	0.245	--	--	--	0.325
	NDM 238	10/17/2000	--	12.3	0.46	0.324	--	--	--	0.386
	NDM 239	10/17/2000	--	--	--	0.315	--	--	--	0.379
T2-D	NDJ-329	01/11/2000	--	10.3	10.7	0.107	--	--	--	<0.0010
	NDJ 363	04/11/2000	--	8.1	3.7	0.151	--	--	--	<0.0004
	NDJ 364	04/11/2000	--	--	--	0.153	--	--	--	<0.0004
	NDK 375	08/16/2000	--	15.2	3.85	0.172	--	--	--	0.0112
	NDM 242	10/17/2000	--	14.5	3.65	0.226	--	--	--	0.0093
T2-S	NDJ-328	01/11/2000	--	10.1	3.69	0.0862	--	--	--	<0.001
	NDJ 362	04/11/2000	--	7.9	13.6	0.342	--	--	--	0.0496
	NDK 374	08/16/2000	--	15.2	3.22	0.100	--	--	--	0.004

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDM 241	10/17/2000	324	<0.0002	--	245	111	1.084	2610	8.540	--	--
T3-D	NDJ-331	01/11/2000	405	<0.0004	--	283	193	0.42	3120	36.900	--	--
	NDJ 366	04/11/2000	295	<0.0002	--	255	184	0.72	3110	28.700	--	--
	NDK 329	08/16/2000	272	<0.0003	--	209	93.3	1.07	3980	8.170	--	--
	NDM 244	10/17/2000	307	<0.0002	--	231	108	0.322	2580	18.000	--	--
T3-S	NDJ-330	01/11/2000	273	<0.0004	--	266	193	0.41	2960	19.300	--	--
	NDJ 365	04/11/2000	273	<0.0002	--	274	168	0.61	3070	11.100	--	--
	NDK 328	08/16/2000	284	<0.0003	--	220	94.6	0.99	3950	6.150	--	--
	NDM 243	10/17/2000	393	<0.0002	--	255	111	0.539	2620	12.200	--	--
T4-D	NDJ-333	01/11/2000	149	<0.0004	--	198	192	0.32	2870	47.000	--	--
	NDJ 369	04/11/2000	125	<0.0002	--	172	185	0.19	2840	34.000	--	--
	NDK 331	08/16/2000	119	<0.0003	--	117	92.8	0.7	3470	17.000	--	--
	NDM 246	10/17/2000	232	<0.0002	--	153	103	0.733	2380	34.100	--	--
T4-S	NDJ-332	01/11/2000	117	<0.0004	--	174	187	0.27	2660	0.925	--	--
	NDJ-151	01/11/2000	--	<0.0004	--	172	182	--	--	0.848	--	--
	NDJ 368	04/11/2000	48	<0.0002	--	166	186	0.12	2730	2.480	--	--
	NDK 330	08/16/2000	42	<0.0003	--	78.8	88.7	1.8	3320	<0.0091	--	--
	NDM 245	10/17/2000	57	<0.0002	--	59.5	98.8	0.852	1989	<0.0116	--	--
T5-D	NDJ-335	01/11/2000	76	<0.0004	--	183	208	0.29	2760	26.300	--	--
	NDJ 371	04/11/2000	45	<0.0002	--	152	185	0.13	2700	19.300	--	--
	NDK 333	08/16/2000	40	<0.0003	--	83.4	90.0	0.51	3100	2.860	--	--
	NDM 248	10/17/2000	158	<0.0002	--	134	106	0.499	2340	27.400	--	--
T5-S	NDJ-334	01/11/2000	48	<0.0004	--	164	192	0.42	2650	0.187	--	--
	NDJ 370	04/11/2000	37	0.00029	--	169	201	0.32	2680	0.0796	--	--
	NDK 332	08/16/2000	60	<0.0003	--	84.1	87.9	0.86	3250	<0.0091	--	--
	NDM 247	10/17/2000	30	<0.0002	--	64.5	96.5	0.626	2000	<0.0116	--	--
T6-D	NDJ-337	01/12/2000	50	0.0034	--	165	177	--	2590	0.377	--	--
	NDJ 474	03/01/2000	--	0.0185	--	164	169	--	2400	0.105	0.0941	--
	NDJ 373	04/11/2000	75	0.0033	--	178	174	--	2610	<0.0074	--	--
	NDK 335	08/16/2000	--	0.0052	--	95.1	92.1	0.77	1990	<0.0091	--	--
	NDM 250	10/17/2000	33	0.0026	--	103	99.0	--	2200	<0.0116	--	--
T6-S	NDJ 475	02/29/2000	75	0.0072	--	170	171	--	2490	0.151	0.910	--
	NDJ 372	04/11/2000	68	0.0012	--	171	174	--	2740	<0.0074	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDM 241	10/17/2000	--	18.3	62.9	0.367	0.030	278	--	1.540	--	0.258	--
T3-D	NDJ-331	01/11/2000	--	16.6	86.8	0.584	0.0117	323	7.720	--	1.960	--	4.130
	NDJ 366	04/11/2000	--	15.1	83.5	0.527	~0.0109	281	8.200	--	--	0.368	--
	NDK 329	08/16/2000	--	17.1	55.8	0.413	0.0264	276	--	3.100	--	0.480	--
	NDM 244	10/17/2000	--	18.8	63.4	0.499	0.016	282	--	2.390	--	0.347	--
T3-S	NDJ-330	01/11/2000	--	14.6	92.9	1.200	0.0148	338	3.840	--	1.080	--	3.250
	NDJ 365	04/11/2000	--	16.9	78.9	0.531	~0.0237	291	3.480	--	--	0.289	--
	NDK 328	08/16/2000	--	16.7	57.3	0.274	0.0388	284	--	1.860	--	1.180	--
	NDM 243	10/17/2000	--	18.3	62.8	0.408	0.0244	280	--	1.290	--	0.789	--
T4-D	NDJ-333	01/11/2000	--	18.8	97.3	0.596	<0.00041	353	8.700	--	<0.028	--	<0.080
	NDJ 369	04/11/2000	--	14.6	82.1	0.439	<0.0004[b]	270	11.600	--	--	<0.0272	--
	NDK 331	08/16/2000	--	17.5	54.6	0.336	0.0031	277	--	4.060	--	<0.027	--
	NDM 246	10/17/2000	--	18.9	63.9	0.612	<0.0003	277	--	4.270	--	<0.0136	--
T4-S	NDJ-332	01/11/2000	--	16.2	92.9	1.220	0.0315	347	5.400	--	<0.028	--	<0.080
	NDJ-151	01/11/2000	--	15.9	89.7	~1.210	~0.0313	327	5.820	--	<0.028	--	<0.080
	NDJ 368	04/11/2000	--	14.2	85.4	0.467	~0.0144	275	9.920	--	--	<0.0272	--
	NDK 330	08/16/2000	--	18.2	49.9	0.073	0.0474	281	--	5.550	--	<0.0135	--
	NDM 245	10/17/2000	--	19.2	61.7	0.0336	0.0812	281	--	3.740	--	<0.0136	--
T5-D	NDJ-335	01/11/2000	--	19.9	97.4	~0.896	<0.0004[b]	349	8.180	--	<0.028	--	<0.080
	NDJ 371	04/11/2000	--	14.8	82.3	0.448	<0.0004[b]	274	~11.100	--	--	<0.0272	--
	NDK 333	08/16/2000	--	18.2	54.2	0.227	0.0026	281	--	5.560	--	<0.0135	--
	NDM 248	10/17/2000	--	19.0	61.8	0.608	<0.0003	277	--	6.070	--	<0.0136	--
T5-S	NDJ-334	01/11/2000	--	16.8	88.4	~0.323	~0.0647	351	5.720	--	1.960	--	4.140
	NDJ 370	04/11/2000	--	14.1	82.8	0.269	~0.0394	276	9.850	--	--	<0.0272	--
	NDK 332	08/16/2000	--	18.5	45.9	0.093	0.0808	281	--	6.190	--	<0.0135	--
	NDM 247	10/17/2000	--	19.9	57.0	0.0676	0.134	284	--	3.140	--	<0.0136	--
T6-D	NDJ-337	01/12/2000	--	16.4	74.2	~1.760	~0.0537	363	0.229	--	<0.028	--	15.500
	NDJ 474	03/01/2000	--	16.5	81.1	2.870	0.0248	304	--	--	--	--	--
	NDJ 373	04/11/2000	--	15.4	74.3	2.240	~0.0367	279	13.000	--	--	0.0955	--
	NDK 335	08/16/2000	--	15.0	43.7	1.770	0.0288	288	--	6.110	--	0.0586	--
	NDM 250	10/17/2000	--	19.0	53.7	3.210	0.0133	286	--	2.330	--	0.0284	--
T6-S	NDJ 475	02/29/2000	--	16.8	84.1	2.380	0.015	301	--	--	--	--	--
	NDJ 372	04/11/2000	--	15.2	76.5	1.410	~0.0165	279	~8.220	--	--	0.554	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDM 241	10/17/2000	4.040	--	-71	--	6.91	--	--	--	0.0117	949	--
T3-D	NDJ-331	01/11/2000	--	--	-229	--	7.43	--	--	--	0.0117	1280	--
	NDJ 366	04/11/2000	2.760	--	12	--	7.55	--	--	--	0.0169	1180	--
	NDK 329	08/16/2000	2.550	--	-96	--	7.19	--	--	--	0.0052	961	--
	NDM 244	10/17/2000	1.660	--	-106	--	7.02	--	--	--	0.0055	951	--
T3-S	NDJ-330	01/11/2000	--	--	-246	--	7.68	--	--	--	0.0117	1240	--
	NDJ 365	04/11/2000	19.700	--	59	--	7.02	--	--	--	0.0364	1200	--
	NDK 328	08/16/2000	4.520	--	-97	--	7.16	--	--	--	0.0091	964	--
	NDM 243	10/17/2000	5.160	--	-100	--	6.95	--	--	--	0.0139	952	--
T4-D	NDJ-333	01/11/2000	--	--	-327	--	7.67	--	--	--	<0.0001	1220	--
	NDJ 369	04/11/2000	<0.0296	--	94	--	7.68	--	--	--	0.0029	1170	--
	NDK 331	08/16/2000	<0.031	--	-229	--	7.59	--	--	--	<0.0001	907	--
	NDM 246	10/17/2000	<0.0148	--	-240	--	7.65	--	--	--	<0.0001	925	--
T4-S	NDJ-332	01/11/2000	--	--	-413	--	8.88	--	--	--	<0.0001	1190	--
	NDJ-151	01/11/2000	--	--	--	--	--	--	--	--	0.00014	1160	--
	NDJ 368	04/11/2000	<0.0296	--	72	--	8.27	--	--	--	<0.0002	1130	--
	NDK 330	08/16/2000	<0.0155	--	-39	--	9.24	--	--	--	<0.0001	848	--
	NDM 245	10/17/2000	<0.0148	--	-152	--	7.67	--	--	--	<0.0001	819	--
T5-D	NDJ-335	01/11/2000	--	--	-315	--	7.81	--	--	--	<0.0001	1300	--
	NDJ 371	04/11/2000	<0.0296	--	19	--	9.66	--	--	--	0.0013	1150	--
	NDK 333	08/16/2000	<0.0155	--	-273	--	8.23	--	--	--	0.00013	853	--
	NDM 248	10/17/2000	<0.0148	--	-240	--	7.75	--	--	--	<0.0001	927	--
T5-S	NDJ-334	01/11/2000	--	--	-326	--	9.44	--	--	--	<0.0001	1280	--
	NDJ 370	04/11/2000	<0.0296	--	15	--	9.72	--	--	--	<0.0002	1160	--
	NDK 332	08/16/2000	<0.0155	--	-167	--	9.34	--	--	--	<0.0001	838	--
	NDM 247	10/17/2000	<0.0148	--	-211	--	7.51	--	--	--	<0.0001	834	--
T6-D	NDJ-337	01/12/2000	--	--	222	--	6.44	--	--	--	0.00039	1090	--
	NDJ 474	03/01/2000	--	0.179	-170	--	7.2	--	--	--	<0.0001	1090	--
	NDJ 373	04/11/2000	1.300	--	74	--	7.72	--	--	--	0.0014	1150	--
	NDK 335	08/16/2000	0.911	--	-159	--	6.93	--	--	--	<0.0001	820	--
	NDM 250	10/17/2000	1.950	--	-86	--	6.67	--	--	--	<0.0001	881	--
T6-S	NDJ 475	02/29/2000	--	<0.012	-167	--	7.81	--	--	--	0.0001	1120	--
	NDJ 372	04/11/2000	5.440	--	65	--	8.04	--	--	--	0.0033	1160	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDM 241	10/17/2000	--	14.3	0.66	0.168	--	--	--	0.010
T3-D	NDJ-331	01/11/2000	--	10.7	4.06	0.030	--	--	--	<0.001
	NDJ 366	04/11/2000	--	9.1	6.14	0.0314	--	--	--	<0.0004
	NDK 329	08/16/2000	--	14.9	3.42	0.0613	--	--	--	0.0014
	NDM 244	10/17/2000	--	14.8	3.8	0.0829	--	--	--	<0.0012
T3-S	NDJ-330	01/11/2000	--	10.7	11.9	0.0306	--	--	--	<0.001
	NDJ 365	04/11/2000	--	8.8	19.2	0.166	--	--	--	0.0035
	NDK 328	08/16/2000	--	16.1	0.94	0.115	--	--	--	<0.0012
	NDM 243	10/17/2000	--	15.1	7.26	0.149	--	--	--	0.0015
T4-D	NDJ-333	01/11/2000	--	10.5	3.47	<0.0001	--	--	--	<0.001
	NDJ 369	04/11/2000	--	9.4	4.16	<0.00010	--	--	--	<0.0004
	NDK 331	08/16/2000	--	15	5.69	<0.00010	--	--	--	<0.0012
	NDM 246	10/17/2000	--	14.9	7.63	<0.00010	--	--	--	<0.0012
T4-S	NDJ-332	01/11/2000	--	11.4	6.41	<0.0001	--	--	--	<0.001
	NDJ-151	01/11/2000	--	--	--	<0.0001	--	--	--	<0.0010
	NDJ 368	04/11/2000	--	9	6.01	<0.00010	--	--	--	<0.0004
	NDK 330	08/16/2000	--	15.7	1.6	<0.00010	--	--	--	<0.0012
	NDM 245	10/17/2000	--	15.6	0.66	<0.0001	--	--	--	<0.0012
T5-D	NDJ-335	01/11/2000	--	11.2	3.42	<0.0001	--	--	--	<0.001
	NDJ 371	04/11/2000	--	9	3.74	<0.0001	--	--	--	<0.0004
	NDK 333	08/16/2000	--	15.3	8.1	<0.00010	--	--	--	<0.0012
	NDM 248	10/17/2000	--	14.9	2.5	<0.00010	--	--	--	<0.0012
T5-S	NDJ-334	01/11/2000	--	11.4	2.6	<0.0001	--	--	--	<0.001
	NDJ 370	04/11/2000	--	9	4.17	<0.00010	--	--	--	<0.0004
	NDK 332	08/16/2000	--	15.8	1.09	<0.00010	--	--	--	<0.0012
	NDM 247	10/17/2000	--	15.8	2.02	<0.00010	--	--	--	<0.0012
T6-D	NDJ-337	01/12/2000	--	7.5	34.3	0.0066	--	--	--	0.0844
	NDJ 474	03/01/2000	--	8.5	>1000	0.0157	--	--	--	0.010
	NDJ 373	04/11/2000	--	10.5	35.2	~0.0226	--	--	--	0.0282
	NDK 335	08/16/2000	--	17.4	--	0.0197	--	--	--	0.0093
	NDM 250	10/17/2000	--	16.1	696	0.0018	--	--	--	0.016
T6-S	NDJ 475	02/29/2000	--	7.9	--	0.0056	--	--	--	0.0046
	NDJ 372	04/11/2000	--	10.4	24.2	0.0053	--	--	--	0.0039

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDM 249	10/17/2000	--	0.0011	--	89.3	98.1	--	1771	0.699	--	--
T7-D	NDJ 473	02/29/2000	79	0.0232	--	176	169	3	2520	<0.0089	0.307	--
	NDJ 374	04/11/2000	70	0.0028	--	210	181	--	2790	<0.0074	--	--
	NDM 252	10/17/2000	--	0.00096	--	123	96.6	--	2370	<0.0116	--	--
T99-01	NDE 835	01/13/2000	--	0.0024	0.600	287	140	5.32	3340	<0.0089	0.237	194.89
	NDE 914	04/19/2000	152	0.002	0.417	253	130	--	3910	<0.0074	0.282	112.62
	NDE 915	04/19/2000	--	0.0019	0.476	250	131	--	--	<0.0074	0.284	121.71
	NDK 433	07/27/2000	182	0.0024	0.412	232	75.3	2.63	2300	<0.0091	0.298	~137.88
T99-03	NDE 834	01/13/2000	--	0.00089	--	403	--	3.4	8850	<0.0089	--	--
	NDG 422	04/19/2000	--	0.0007	--	444	--	--	--	0.0117	--	--
T99-05	NDE 775	04/10/2000	191	0.00042	<0.0635	56.1	1.51	1.2	552	0.0119	0.228	<2.18[b]
	NDJ 862	11/01/2000	--	<0.0002	--	58.2	--	--	320	<0.0117	--	--
T99-11	NDE 833	01/13/2000	268	0.0045	0.665	297	142	3.32	3270	<0.0089	0.262	523.92
	NDE 913	04/18/2000	122	0.0026	0.443	231	149	--	2430	0.0093	0.335	62.96
	NDK 431	07/27/2000	360	0.0035	0.642	196	69.2	0.93	2050	0.010	0.354	~70.82
TW-01	NDJ 171	08/15/2000	225	0.0109	--	--	--	0.34	2860	--	--	--
	NDK 396	10/17/2000	315	0.0132	--	--	--	0.23	2850	--	--	--
TW-02	NDJ 170	08/15/2000	240	0.011	--	--	--	0.25	2650	--	--	--
	NDK 397	10/17/2000	287	0.0124	--	--	--	0.21	2690	--	--	--
TW-03	NDJ 169	08/15/2000	240	0.0106	--	--	--	0.38	2450	--	--	--
	NDK 398	10/17/2000	288	0.0119	--	--	--	0.25	2670	--	--	--
TW-04	NDJ 168	08/15/2000	265	0.0095	--	--	--	0.24	2570	--	--	--
	NDM 253	10/17/2000	282	0.0113	--	--	--	0.874	2700	--	--	--
TW-05	NDJ 167	08/15/2000	365	0.0011	--	--	--	1.45	2840	--	--	--
	NDM 384	10/18/2000	336	0.002	--	--	--	0.93	2860	--	--	--
TW-06	NDJ 166	08/15/2000	360	0.0055	--	--	--	0.6	2780	--	--	--
	NDM 391	10/18/2000	324	0.0056	--	--	--	0.485	2770	--	--	--
TW-08	NDK 376	08/17/2000	--	0.0016	0.482	158	115	--	--	<0.0091	0.246	--
	NDM 379	10/17/2000	--	0.0022	--	--	--	--	2550	--	--	--
TW-09	NDK 800	08/17/2000	420	0.00078	0.143	106	124	--	2040	0.0818	1.100	--
	NDM 380	10/17/2000	396	0.00047	--	--	--	0.764	1855	--	--	--
TW-10	NDJ 173	08/15/2000	85	0.0094	--	--	--	0.6	3720	--	--	--
	NDJ 174	08/15/2000	85	0.0091	--	--	--	0.6	3720	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDM 249	10/17/2000	--	19.9	58.4	3.200	0.017	282	--	4.120	--	0.0639	--
T7-D	NDJ 473	02/29/2000	--	18.4	82.2	2.880	0.0352	307	--	--	--	--	--
	NDJ 374	04/11/2000	--	17.5	87.6	1.690	~0.043	330	~11.300	--	--	0.489	--
	NDM 252	10/17/2000	--	16.8	51.6	2.320	0.010	282	--	0.725	--	0.135	--
T99-01	NDE 835	01/13/2000	86.16	23.7	76.3	<0.0009	0.0635	352	--	--	--	--	--
	NDE 914	04/19/2000	88.69	18.5	64.7	0.0012	0.0507	262	--	--	--	--	--
	NDE 915	04/19/2000	81.88	18.4	63.8	0.0019	0.0493	260	--	--	--	--	--
	NDK 438	07/27/2000	90.94	15.9	61.0	<0.0015	0.0483	227	--	--	--	--	--
T99-03	NDE 834	01/13/2000	--	2.53	1070	0.479	~0.0023	760	--	--	--	--	--
	NDG 422	04/19/2000	--	2.20	1080	0.337	0.0034	744	--	--	--	--	--
T99-05	NDE 775	04/10/2000	2.67	0.980	15.2	0.060	<0.0004	38.8	--	--	--	--	--
	NDJ 862	11/01/2000	--	1.76	15.1	0.0255	0.0051	38.9	--	--	--	--	--
T99-11	NDE 833	01/13/2000	151.16	21.9	78.6	<0.0009	0.0564	372	--	--	--	--	--
	NDE 913	04/18/2000	34.85	14.4	66.0	0.0039	0.0409	238	--	--	--	--	--
	NDK 431	07/27/2000	49.25	12.9	56.1	0.014	0.0419	193	--	--	--	--	--
TW-01	NDJ 171	08/15/2000	--	--	--	--	0.086	--	--	--	--	--	--
	NDK 396	10/17/2000	--	--	--	--	0.103	--	--	--	--	--	--
TW-02	NDJ 170	08/15/2000	--	--	--	--	0.0747	--	--	--	--	--	--
	NDK 397	10/17/2000	--	--	--	--	0.0844	--	--	--	--	--	--
TW-03	NDJ 169	08/15/2000	--	--	--	--	0.0641	--	--	--	--	--	--
	NDK 398	10/17/2000	--	--	--	--	0.0684	--	--	--	--	--	--
TW-04	NDJ 168	08/15/2000	--	--	--	--	0.0543	--	--	--	--	--	--
	NDM 253	10/17/2000	--	--	--	--	0.0623	--	--	--	--	--	--
TW-05	NDJ 167	08/15/2000	--	--	--	--	0.0813	--	--	--	--	--	--
	NDM 384	10/18/2000	--	--	--	--	0.0765	--	--	--	--	--	--
TW-06	NDJ 166	08/15/2000	--	--	--	--	0.0345	--	--	--	--	--	--
	NDM 391	10/18/2000	--	--	--	--	0.0389	--	--	--	--	--	--
TW-08	NDK 376	08/17/2000	--	15.8	61.6	2.650	0.0323	291	--	--	--	--	--
	NDM 379	10/17/2000	--	--	--	--	0.0355	--	--	--	--	--	--
TW-09	NDK 800	08/17/2000	--	10.5	28.6	0.496	0.0417	248	--	--	--	--	--
	NDM 380	10/17/2000	--	--	--	--	0.0355	--	--	--	--	--	--
TW-10	NDJ 173	08/15/2000	--	--	--	--	0.014	--	--	--	--	--	--
	NDJ 174	08/15/2000	--	--	--	--	0.0143	--	--	--	--	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDM 249	10/17/2000	0.414	--	77	--	6.48	--	--	--	<0.0001	877	--
T7-D	NDJ 473	02/29/2000	--	0.0867	-215	--	8.08	--	--	--	0.00044	1120	--
	NDJ 374	04/11/2000	1.510	--	76	--	7.66	--	--	--	0.0023	1170	--
	NDM 252	10/17/2000	6.820	--	135	--	6.24	--	--	--	0.00013	887	--
T99-01	NDE 835	01/13/2000	--	~16.800	194	0.31	--	<0.78	--	683.47	0.025	1220	2580
	NDE 914	04/19/2000	--	8.310	138	<0.28	6.19	<0.46	--	611.66	0.014	1070	2000
	NDE 915	04/19/2000	--	8.430	--	<0.27	--	<0.39	--	663.15	0.0139	1080	1970
	NDK 433	07/27/2000	--	10.600	177	<0.26	6.61	<0.87	<4.61	292.05	0.009	992	2200
T99-03	NDE 834	01/13/2000	--	--	221	--	--	--	--	--	0.006	--	--
	NDG 422	04/19/2000	--	--	--	--	--	--	--	--	0.0037	--	--
T99-05	NDE 775	04/10/2000	--	<0.0324	65	<0.28	7.16	<0.64	--	840.53	<0.0002	67.4	323
	NDJ 862	11/01/2000	--	--	-60	--	7.36	--	--	--	0.0024	--	--
T99-11	NDE 833	01/13/2000	--	~20.200	188	<0.27	--	<0.77	--	702.87	0.0284	1290	2690
	NDE 913	04/18/2000	--	3.380	166	<0.27	6.33	<0.47	--	718.3	0.0047	993	1840
	NDK 431	07/27/2000	--	3.890	103	<0.26	6.63	<0.86	<4.3	643.38	0.0038	871	1640
TW-01	NDJ 171	08/15/2000	--	--	132	--	6.43	--	--	--	0.0035	--	--
	NDK 396	10/17/2000	--	--	68	--	6.88	--	--	--	0.011	--	--
TW-02	NDJ 170	08/15/2000	--	--	129	--	6.53	--	--	--	0.007	--	--
	NDK 397	10/17/2000	--	--	72	--	6.79	--	--	--	0.0148	--	--
TW-03	NDJ 169	08/15/2000	--	--	128	--	6.57	--	--	--	0.0117	--	--
	NDK 398	10/17/2000	--	--	85	--	6.82	--	--	--	0.0494	--	--
TW-04	NDJ 168	08/15/2000	--	--	126	--	6.58	--	--	--	0.0132	--	--
	NDM 253	10/17/2000	--	--	136	--	6.6	--	--	--	0.0306	--	--
TW-05	NDJ 167	08/15/2000	--	--	119	--	6.65	--	--	--	0.0267	--	--
	NDM 384	10/18/2000	--	--	83	--	6.66	--	--	--	0.0163	--	--
TW-06	NDJ 166	08/15/2000	--	--	122	--	6.82	--	--	--	0.0473	--	--
	NDM 391	10/18/2000	--	--	80	--	6.52	--	--	--	0.0109	--	--
TW-08	NDK 376	08/17/2000	--	--	--	--	--	--	--	--	0.00021	1030	--
	NDM 379	10/17/2000	--	--	132	--	6.62	--	--	--	<0.0001	--	--
TW-09	NDK 800	08/17/2000	--	--	-37	--	7.26	--	--	--	0.00052	375	--
	NDM 380	10/17/2000	--	--	156	--	7.12	--	--	--	0.0024	--	--
TW-10	NDJ 173	08/15/2000	--	--	-154	--	7.95	--	--	--	<0.0001	--	--
	NDJ 174	08/15/2000	--	--	-154	--	7.95	--	--	--	<0.0001	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDM 249	10/17/2000	--	16.7	436	0.0017	--	--	--	0.0079
T7-D	NDJ 473	02/29/2000	--	9	269	0.0502	--	--	--	0.0946
	NDJ 374	04/11/2000	--	10.8	30.3	~0.0207	--	--	--	0.0523
	NDM 252	10/17/2000	--	16	73.3	0.006	--	--	--	0.0188
T99-01	NDE 835	01/13/2000	<0.88	8	311	0.443	--	--	--	0.0865
	NDE 914	04/19/2000	<1.5	8.8	138	0.199	--	--	--	0.0726
	NDE 915	04/19/2000	<1.5	--	--	0.195	--	--	--	0.0719
	NDK 433	07/27/2000	<2.6	18.6	>1000	0.257	--	--	--	0.0785
T99-03	NDE 834	01/13/2000	<0.88	9.1	502	0.0363	--	--	--	<0.0010
	NDG 422	04/19/2000	<1.5	--	--	0.0335	--	--	--	0.005
T99-05	NDE 775	04/10/2000	<1.5	8.9	4.53	0.0088	--	--	--	<0.00040
	NDJ 862	11/01/2000	<1.7	7.9	511	0.0109	--	--	--	<0.0013
T99-11	NDE 833	01/13/2000	<0.88	10.2	3.85	0.775	--	--	--	0.164
	NDE 913	04/18/2000	<1.5	9.3	2.34	0.0965	--	--	--	0.134
	NDK 431	07/27/2000	<2.6	10.8	4.7	0.134	--	--	--	0.157
TW-01	NDJ 171	08/15/2000	--	14.3	2.98	0.418	--	--	--	0.381
	NDK 396	10/17/2000	--	14.1	1.38	0.498	--	--	--	0.442
TW-02	NDJ 170	08/15/2000	--	14	12.5	0.348	--	--	--	0.356
	NDK 397	10/17/2000	--	14.9	1.38	0.391	--	--	--	0.412
TW-03	NDJ 169	08/15/2000	--	13.9	6.97	0.263	--	--	--	0.363
	NDK 398	10/17/2000	--	15.1	0.96	0.345	--	--	--	0.399
TW-04	NDJ 168	08/15/2000	--	14.2	7.79	0.265	--	--	--	0.324
	NDM 253	10/17/2000	--	15.5	68.9	0.330	--	--	--	0.372
TW-05	NDJ 167	08/15/2000	--	15.5	28.9	0.260	--	--	--	0.0812
	NDM 384	10/18/2000	--	15.4	7.08	0.302	--	--	--	0.165
TW-06	NDJ 166	08/15/2000	--	15.5	7.29	0.291	--	--	--	0.323
	NDM 391	10/18/2000	--	16	8.17	0.271	--	--	--	0.352
TW-08	NDK 376	08/17/2000	--	--	--	0.0232	--	--	--	0.0515
	NDM 379	10/17/2000	--	14.6	>1000	0.0236	--	--	--	0.0616
TW-09	NDK 800	08/17/2000	--	16.6	>1000	0.0183	--	--	--	<0.0012
	NDM 380	10/17/2000	--	14.3	1.43	0.0071	--	--	--	0.0022
TW-10	NDJ 173	08/15/2000	--	16.6	11.9	0.0023	--	--	--	0.0019
	NDJ 174	08/15/2000	--	16.6	11.9	0.0024	--	--	--	0.0019

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	ALK (mg/L)	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	DO (mg/L)	EC (µmhos/cm)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)
	NDM 392	11/02/2000	64	0.002	--	106	--	0.931	2180	0.243	--	--
TW-11	NDK 790	08/16/2000	30	<0.0003	--	--	--	0.22	3560	--	--	--
	NDM 408	10/17/2000	37	<0.0002	--	--	--	0.2	2200	--	--	--
TW-12	NDK 789	08/16/2000	72	<0.0003	--	--	--	0.41	2150	--	--	--
	NDM 404	10/17/2000	180	<0.0002	--	--	--	0.19	2330	--	--	--
TW-13	NDK 785	08/16/2000	45	<0.0003	--	--	--	0.26	2970	--	--	--
	NDM 381	10/18/2000	42	<0.0002	--	--	--	0.586	1844	--	--	--
TW-14	NDK 782	08/16/2000	33	<0.0003	--	--	--	0.12	1920	--	--	--
	NDM 382	10/18/2000	42	<0.0002	--	--	--	0.626	1955	--	--	--
	NDM 383	10/18/2000	--	<0.0002	--	--	--	--	--	--	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)
	NDM 392	11/02/2000	--	16.8	59.9	2.580	0.0127	293	--	--	--	--	--
TW-11	NDK 790	08/16/2000	--	--	--	--	0.0035	--	--	--	--	--	--
	NDM 408	10/17/2000	--	--	--	--	0.0082	--	--	--	--	--	--
TW-12	NDK 789	08/16/2000	--	--	--	--	0.0015	--	--	--	--	--	--
	NDM 404	10/17/2000	--	--	--	--	<0.0003	--	--	--	--	--	--
TW-13	NDK 785	08/16/2000	--	--	--	--	0.0047	--	--	--	--	--	--
	NDM 381	10/18/2000	--	--	--	--	0.0093	--	--	--	--	--	--
TW-14	NDK 782	08/16/2000	--	--	--	--	0.0081	--	--	--	--	--	--
	NDM 382	10/18/2000	--	--	--	--	0.0122	--	--	--	--	--	--
	NDM 383	10/18/2000	--	--	--	--	0.011	--	--	--	--	--	--

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[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)	ORP (mV)	Pb-210 (pCi/L)	pH (s.u.)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)
	NDM 392	11/02/2000	--	--	54	--	7.18	--	--	--	<0.0001	--	--
TW-11	NDK 790	08/16/2000	--	--	-62	--	9.18	--	--	--	<0.0001	--	--
	NDM 408	10/17/2000	--	--	-289	--	9.19	--	--	--	<0.0001	--	--
TW-12	NDK 789	08/16/2000	--	--	-267	--	7.85	--	--	--	<0.0001	--	--
	NDM 404	10/17/2000	--	--	-257	--	7.99	--	--	--	0.004	--	--
TW-13	NDK 785	08/16/2000	--	--	67	--	9.44	--	--	--	<0.0001	--	--
	NDM 381	10/18/2000	--	--	-100	--	9.55	--	--	--	<0.0001	--	--
TW-14	NDK 782	08/16/2000	--	--	-354	--	9.44	--	--	--	<0.0001	--	--
	NDM 382	10/18/2000	--	--	-252	--	9.19	--	--	--	<0.0001	--	--
	NDM 383	10/18/2000	--	--	--	--	--	--	--	--	<0.0001	--	--

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-2. Groundwater Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Th-230 (pCi/L)	TMP (C)	Turbidity (NTU)	U (mg/L)	U-234 (pCi/L)	U-235 (pCi/L)	U-238 (pCi/L)	V (mg/L)
	NDM 392	11/02/2000	--	14.2	1.28	<0.0001	--	--	--	0.0068
TW-11	NDK 790	08/16/2000	--	17.5	2.96	<0.0001	--	--	--	<0.0012
	NDM 408	10/17/2000	--	15.6	5.37	<0.00010	--	--	--	<0.0012
TW-12	NDK 789	08/16/2000	--	16	5.77	<0.00010	--	--	--	<0.0012
	NDM 404	10/17/2000	--	16	2.84	<0.00010	--	--	--	<0.0012
TW-13	NDK 785	08/16/2000	--	16.5	1.84	<0.00010	--	--	--	<0.0012
	NDM 381	10/18/2000	--	14.7	3.31	<0.00010	--	--	--	0.0021
TW-14	NDK 782	08/16/2000	--	14.9	6.77	<0.0001	--	--	--	<0.0012
	NDM 382	10/18/2000	--	15.7	1.85	<0.00010	--	--	--	0.0013
	NDM 383	10/18/2000	--	--	--	<0.00010	--	--	--	<0.0012

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-3. QA/QC Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	As (mg/L)	Bromide (mg/L)	Ca (mg/L)	Chloride (mg/L)	Fe (mg/L)	Fluoride (mg/L)	Gross Alpha (pCi/L)	Gross Beta (pCi/L)	K (mg/L)	Mg (mg/L)
Equipment Blank	NDJ-152	01/11/2000	<0.0004	--	<0.0298	<0.102	<0.0089	--	--	--	<0.0454	<0.0172
	NDJ-153	01/12/2000	<0.0004	--	<0.0298	<0.102	--	--	--	--	<0.0454	<0.0172
	NDJ-154	01/13/2000	<0.0004	--	<0.0298	<0.102	--	--	--	--	<0.0454	<0.0172
	NDE 880	01/14/2000	<0.0004	--	<0.0298	<0.110	<0.0089	<0.018	--	--	<0.0454	<0.0172
	NDJ 159	03/01/2000	<0.0004	--	0.0493	<0.110	<0.0089	<0.018	--	--	<0.0455	0.0282
	NDJ 367	04/11/2000	<0.0002	--	<0.0310	<0.0228	<0.0074	--	--	--	0.0918	<0.010
	NDJ 399	04/12/2000	<0.0002	--	0.0531	<0.0228	--	--	--	--	<0.0343	<0.0103
	NDE 840	04/12/2000	<0.0002	<0.0635	0.0611	<0.0228	<0.0074	<0.012	<1.01[b]	<1.87	0.0436	<0.010
	NDK 316	04/13/2000	<0.0002	--	--	--	--	--	--	--	--	--
	NDE 908	04/18/2000	<0.0002	--	0.112	<0.0228	<0.0074	<0.012	--	--	0.0372	<0.010
	NDE 916	04/19/2000	<0.0002	<0.0635	0.0846	0.0797	<0.0074	<0.012	<1.62	<2.95	0.0581	<0.010
	NDG 425	07/17/2000	<0.0003	--	0.121	4.58	<0.0091	<0.0125	--	--	<0.0456	0.0457
	NDE 785	07/28/2000	<0.0003	<0.0665	0.0616	<0.0239	<0.0091	<0.0125	<2.18	<4.69	<0.0456	<0.0240
	NDK 443	08/02/2000	<0.0003	<0.0665	0.0735	<0.0239	<0.0091	<0.0125	<2.16	<4.68	<0.0456	<0.0240
	NDK 367	08/16/2000	<0.0003	--	0.105	0.338	<0.0091	--	--	--	<0.0456	0.0388
	NDK 794	08/16/2000	<0.0003	--	--	--	--	--	--	--	--	--
	NDK 395	10/17/2000	<0.0002	--	--	--	--	--	--	--	--	--
	NDK 399	10/17/2000	<0.0002	--	--	--	--	--	--	--	--	--
	NDM 251	10/17/2000	<0.0002	--	<0.0481	<0.0240	<0.0116	--	--	--	<0.0327	<0.0352
	NDM 386	10/18/2000	<0.0002	--	--	--	--	--	--	--	--	--
	NDE 924	10/20/2000	<0.0002	--	0.0839	<0.0240	<0.0117	<0.0125	--	--	<0.0327	<0.0352
	NDM 479	11/02/2000	<0.0002	<0.0665	<0.0481	<0.0240	<0.0117	<0.0125	<4.29	<7.20	0.0456	<0.0352
	NDM 453	11/03/2000	<0.0002	<0.0665	0.152	<0.0240	<0.0117	<0.0125	<4.32	<7.16	0.270	0.0398

[a] A "<" indicates maximum concentration was below the detection limit (# shown is detection limit). A "~" indicates an estimated value. All samples were filtered in the field unless otherwise noted.
[b] Estimated

Table A-3. QA/QC Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Mn (mg/L)	Mo (mg/L)	Na (mg/L)	NH_4 (mg/L)	NH_4 As N (mg/L)	NO_2 (mg/L)	NO_2 As N (mg/L)	NO_3 (mg/L)	NO_3 As N (mg/L)	NO_3+NO_2 As N (mg/L)
Equipment Blank	NDJ-152	01/11/2000	<0.0009[b]	<0.0004[b]	<0.427	<0.005	--	<0.014	--	<0.040	--	--
	NDJ-153	01/12/2000	--	<0.0004	<0.427	<0.005	--	--	--	<0.040	--	--
	NDJ-154	01/13/2000	--	0.0012	<0.427	<0.005	--	--	--	<0.040	--	--
	NDE 880	01/14/2000	<0.0009	<0.0004	<0.427	--	--	--	--	--	--	<0.012[b]
	NDJ 159	03/01/2000	<0.0009	<0.0004	<0.427	--	--	--	--	--	--	<0.012
	NDJ 367	04/11/2000	0.0013	<0.00040[b]	<0.291	<0.0046	--	--	<0.0136	--	<0.0148	--
	NDJ 399	04/12/2000	--	<0.00040	<0.291	--	--	--	--	--	--	<0.0324
	NDE 840	04/12/2000	<0.0004	<0.0004	<0.291	--	--	--	--	--	--	<0.0324
	NDK 316	04/13/2000	--	<0.00040	--	--	--	--	--	--	--	--
	NDE 908	04/18/2000	<0.0004	<0.0004	<0.291	--	--	--	--	--	--	<0.0324
	NDE 916	04/19/2000	<0.0004	<0.00040	<0.291	--	--	--	--	--	--	<0.0324
	NDG 425	07/17/2000	<0.0015	<0.0003	<0.434	--	--	--	--	--	--	<0.0324
	NDE 785	07/28/2000	<0.0015	<0.0003	<0.434	--	--	--	--	--	--	<0.0324
	NDK 443	08/02/2000	<0.0015	<0.0003	<0.434	--	--	--	--	--	--	<0.0324
	NDK 367	08/16/2000	<0.0015	<0.0003	1.13	--	<0.0036	--	<0.0135	--	<0.0155	--
	NDK 794	08/16/2000	--	<0.0003	--	--	--	--	--	--	--	--
	NDK 395	10/17/2000	--	<0.0003	--	--	--	--	--	--	--	--
	NDK 399	10/17/2000	--	<0.00030	--	--	--	--	--	--	--	--
	NDM 251	10/17/2000	<0.002	<0.00030	<0.302	--	<0.0008	--	<0.0136	--	<0.0148	--
	NDM 386	10/18/2000	--	<0.00030	--	--	--	--	--	--	--	--
	NDE 924	10/20/2000	0.0032	<0.0003	<0.302	--	--	--	--	--	--	<0.0324
	NDM 479	11/02/2000	0.0021	<0.0003	<0.302	--	--	--	--	--	--	<0.0324[b]
	NDM 453	11/03/2000	<0.002	<0.0003	0.327	--	--	--	--	--	--	<0.0324

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[b] Estimated

Table A-3. QA/QC Chemistry Data Collected At and Near the MMTS During 2000[a]

Sample Location	Ticket Number	Sample Date	Pb-210 (pCi/L)	Ra-226 (pCi/L)	Ra-228 (pCi/L)	Rn-222 (pCi/L)	Se (mg/L)	SO_4 (mg/L)	TDS (mg/L)	Th-230 (pCi/L)	U (mg/L)	U-234 (pCi/L)	U-238 (pCi/L)	V (mg/L)
Equipment Blank	NDJ-152	01/11/2000	--	--	--	--	<0.0001	<0.0310	--	--	<0.0001	--	--	<0.001
	NDJ-153	01/12/2000	--	--	--	--	<0.0001	<0.0310	--	--	<0.0001	--	--	<0.001
	NDJ-154	01/13/2000	--	--	--	--	<0.0001	<0.0310	--	--	<0.0001	--	--	<0.001
	NDE 880	01/14/2000	--	--	--	--	<0.0001	<0.0310	--	<0.88	<0.0001	--	--	<0.0010
	NDJ 159	03/01/2000	--	--	--	--	<0.0001	<0.0310	--	--	<0.0001	--	--	<0.001
	NDJ 367	04/11/2000	--	--	--	--	<0.0002	0.120	--	--	<0.00010	--	--	<0.0004
	NDJ 399	04/12/2000	--	--	--	--	<0.0002	0.0801	--	--	<0.00010	--	--	<0.0004
	NDE 840	04/12/2000	<0.25	<0.50	--	--	<0.0002	<0.0563	<10	<1.5	<0.00010	--	--	<0.0004
	NDK 316	04/13/2000	--	--	--	--	<0.0002	--	--	--	<0.00010	--	--	0.010
	NDE 908	04/18/2000	--	--	--	--	<0.0002	0.111	--	<1.5	<0.00010	--	--	0.002
	NDE 916	04/19/2000	<0.27	<0.35	--	--	<0.0002	0.156	15	<1.5	<0.0001	--	--	0.00067
	NDG 425	07/17/2000	--	--	--	--	<0.0001	0.312	--	<2.6	<0.00010	--	--	<0.0013
	NDE 785	07/28/2000	<0.27	<0.80	<4.17	<18.50	<0.0001	<0.0589	28	<2.6	<0.00010	--	--	<0.0013
	NDK 443	08/02/2000	<0.25	<0.81	<4.01	--	0.0002	0.0717	<10	<2.6	<0.00010	--	--	<0.0013
	NDK 367	08/16/2000	--	--	--	--	<0.0001	0.173	--	--	<0.0001	--	--	<0.0012
	NDK 794	08/16/2000	--	--	--	--	<0.0001	--	--	--	<0.0001	--	--	<0.0012
	NDK 395	10/17/2000	--	--	--	--	<0.0001	--	--	--	<0.0001	--	--	<0.0012
	NDK 399	10/17/2000	--	--	--	--	<0.0001	--	--	--	<0.00010	--	--	<0.0012
	NDM 251	10/17/2000	--	--	--	--	<0.0001	0.225	--	--	<0.00010	--	--	<0.0012
	NDM 386	10/18/2000	--	--	--	--	<0.0001	--	--	--	<0.00010	--	--	<0.0012
	NDE 924	10/20/2000	--	--	--	--	<0.0001	<0.0589	--	<1.7	<0.0001	--	--	<0.0013
	NDM 479	11/02/2000	<0.31	<0.90	<4.27	--	<0.0001	<0.0589	22	<1.7	<0.0001	<0.52	<0.1	<0.0013
	NDM 453	11/03/2000	<0.34	<0.72	<3.87	<39.17	<0.0001	<0.0589	<10	<1.7	0.00015	0.68	<0.1	<0.0013

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[b] Estimated