WEST VALLEY DEMONSTRATION PROJECT
WEST VALLEY, NEW YORK

Resource Conservation and Recovery Act
Facility Investigation Report
Volume 5

Miscellaneous Small Units

West Valley Nuclear Services Company, Inc.

and

Dames & Moore

WVDP-RFI-020

Prepared for:
U.S. Department of Energy
Ohio Field Office
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Volume 5
Miscellaneous Small Units
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West Valley, New York

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Table of Contents

Page

List of Acronyms ix
Key to Analyte Abbreviations in Appendices xi

1.0 Introduction 1

1.1 Purpose and Objective 1
1.2 Information Contained in this Report 1

2.0 Source Characterization 3

2.1 Unit/Disposal Area Characterization 3
2.1.1 Location and Description of the Miscellaneous Small Units 3
2.1.2 Operating History, Waste Characterization, and Previous Studies at the Miscellaneous Small Units 5

3.0 Environmental Characterization 13

3.1 Sampling Activities 13

4.0 Resource Conservation and Recovery Act Facility Investigation Results 15

4.1 Groundwater 15
4.1.1 Sand and Gravel Unit 15
4.1.2 Till-Sand Unit 17
4.2 Soil 18
4.2.1 Shallow Soil Sampling Program 18
4.2.2 Deep Soil Drilling Program 19
4.2.3 Stream/Ditch Sediment Sampling 21
4.2.4 Quality Assurance/Quality Control Summary 22

5.0 Fate and Transport 25

5.1 Chemical Properties and Toxic Profile 25
5.2 Pathway Assessment 26

6.0 Conclusions and Recommendations 29

References 31

Table of Contents (*concluded*)

Appendix A. Soil Program Borehole Logs
Appendix B. Borehole Logs and Well Construction Diagrams
Appendix C. Groundwater Contamination Indicator Parameter Data
Appendix D. Expanded Groundwater Program Data
Appendix E. 99% Confidence Interval Comparisons of Groundwater Parameters
Appendix F. Soil Program Analytical Data

List of Tables

2-1. 1988 EP-Toxicity Metals, pH, and Major Anion Concentrations from the North and South Demineralizer Sludge Pond

2-2. Metal Concentrations in Sludge Pond Sediment and Background Soil, November 16, 1988

2-3. 1986 EP-Toxicity Metals Extract Concentrations for Solvent Dike Sediment

2-4. 1990 Toxicity Characteristic Leachate Procedure Metals Extract Concentrations - Soils Near the Incinerator

2-5. Historical Routine Groundwater Sampling and Analysis Parameters

2-6. Volatile Detections at the Miscellaneous Small Units

3-1. 1993 Soil and Sediment Sample Locations and Analysis at the Miscellaneous Small Units

3-2. Specifications of Wells Monitoring the Miscellaneous Small Units (SSWMU #2)

4-1. Total Nickel Concentrations in Sand and Gravel Unit Background Wells in 1995-1996

4-2. Target Analyte List Metals Concentrations in Surface Soil Samples at the Miscellaneous Small Units

4-3. Target Analyte List Metals Concentrations in Borehole Samples at the Miscellaneous Small Units

4-4. Radioisotopes Exceeding Background Concentrations at Borehole Sampling Locations at the Miscellaneous Small Units

4-5. Target Analyte List Metals Concentrations in Stream Sediment Samples at the Miscellaneous Small Units

4-6. Completeness of Analytical Results from the 1993 Soils Sampling Program

List of Figures

1-1. MSU (SSWMU #2) Location Map

2-1. MSU (SSWMU #2) Sample Locations for the RCRA Facility Investigation

2-2. Site Plan showing Cross Sections through the MSU

2-3. Cross Section A-A'

2-4. Cross Section B-B'

2-5. Cross Section C-C'

2-6. Lavery Till-Sand Unit Water Table Map for the 4th Quarter 1993

2-7. MSU RCRA Facility Investigation (RFI) Sampling Locations and Analytical Results Summary

List of Acronyms

ANOVA	Analysis of Variance
ASTM	American Society for Testing and Materials
CDDL	Construction and Demolition Debris Landfill
CFR	Code of Federal Regulations
Cs-137	Cesium-137
DOE	(U.S.) Department of Energy
EDTA	Ethylenediaminetetraacetic Acid
EIS	Environmental Impact Statement
EPA	(U.S.) Environmental Protection Agency
EP	Extraction Procedure
GPD	Gallons Per Day
LIMS	Laboratory Information Management System
LPD	Liters Per Day
MCL	Maximum Contaminant Level
MSDS	Material Safety Data Sheet
MSU	Miscellaneous Small Units
NDA	NRC-Licensed Disposal Area
NFS	Nuclear Fuel Services, Inc.
NGVD	National Geodetic Vertical Datum
NPOC	Nonpurgeable Organic Carbon
NRC	Nuclear Regulatory Commission
NYCRR	Official Compilation of Codes, Rules, and Regulations of the State of New York
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCDD	Polychlorinated Dibenzo-p-dioxins
PCDF	Polychlorinated Dibenzofurans
PVC	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation

List of Acronyms *(concluded)*

SAT	Saturated Zone
SOP	Standard Operating Procedure
SPDES	(New York) State Pollutant Discharge Elimination System
Sr-90	Strontium-90
SS	Stainless Steel
SST	Solvent Storage Terrace
STP	Sewage Treatment Plant
SSWMU	Super Solid Waste Management Unit
SVOC	Semivolatile Organic Compound
SWMU	Solid Waste Management Unit
TAGM	Technical Administrative Guidance Memorandum
TAL	Target Analyte List
TBP	Tributyl Phosphate
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
TCTFE	1,1,2-trichloro-1,2,2-trifluoroethane
TIC	Tentatively Identified Compound
TOC	Total Organic Carbon
TOX	Total Organic Halogen
USCS	Unified Soil Classification System
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
WNYNSC	Western New York Nuclear Service Center
WVDP	West Valley Demonstration Project

Key to Analyte Abbreviations in Appendices

ABBREVIATIONS	ANALYTES
VOLATILES	
acetone	Acetone
acnitril	Acetonitrile
acrolein	Acrolein
acrynitr	Acrylonitrile
allylcl	Allyl chloride
benzene	Benzene
br_meth	Methyl bromide
brdcmeth	Bromodichloromethane
brform	Bromoform
c_13_dcp	cis-1,3-Dichloropropene
cc14	Carbon tetrachloride
cl_benz	Chlorobenzene
cl_eth	Chloroethane
cl_form	Chloroform
cl_meth	Methyl chloride
cl_prene	Chloroprene
clevthr	2-Chloroethylvinyl ether
cs2	Carbon disulfide
dbc_meth	Dibromochloromethane
dbc_prop	DBCP
dbeth_12	1,2-Dibromoethane
dca_11	1,1-Dichloroethane
dca_12	1,2-Dichloroethane
dcdfmeth	Dichlorodifluoromethane
dce_11	1,1-Dichloroethylene

ABBREVIATIONS	ANALYTES
dcp_12	1,2-Dichloropropane
diox_14	1,4-Dioxane
eth_benz	Ethyl benzene
eth_meth	Ethyl methacrylate
hexnone2	2-Hexanone
ibut_alc	Isobutyl alcohol
meacryln	Methacrylonitrile
mek	Methyl ethyl ketone
mene_br	Methylene bromide
mene_cl	Methylene chloride
meth_i	Methyl iodide
methmeac	Methyl methacrylate
mibk	4-Methyl-2-pentanone
picoline	2-Picoline
pntcleth	Pentachloroethane
propnitl	Propionitrile
pyridine	Pyridine
styrene	Styrene
t_13_dcp	trans-1,3-Dichloropropene
t_14dc2b	trans-1,4-Dichloro-2-butene
tca_111	1,1,1-Trichloroethane
tca_1112	1,1,1,2-Tetrachloroethane
tca_112	1,1,2-Trichloroethane
tca_1122	1,1,2,2-Tetrachloroethane
tcf_meth	Trichlorofluoromethane
tcp_123	1,2,3-Trichloropropane
tetcleth	Tetrachloroethylene
toluene	Toluene

ABBREVIATIONS	ANALYTES
tricleth	Trichloroethylene
vnyl_ace	Vinyl acetate
vnyl_cl	Vinyl chloride
xylene	Xylene (Total)
PESTICIDES and PCBs	
a_bhc	alpha-BHC
aldrin	Aldrin
b_bhc	beta-BHC
chlrdane	Chlordane (Total)
d_24	2,4-D
d_bhc	delta-BHC
ddd_44	4,4'-DDD
dde_44	4,4'-DDE
ddt_44	4,4'-DDT
dieldrin	Dieldrin
dinoseb	Dinoseb
disulftn	Disulfoton
endos_1	Endosulfan I
endos_2	Endosulfan II
endos_s	Endosulfan sulfate
endrin	Endrin
endrn_al	Endrin aldehyde
endrn_kt	Endrin ketone
g_bhc	gamma-BHC (Lindane)
hept_clr	Hepatachlor
hept_epx	Hepatachlor epoxide
meth_par	Methyl parathion

ABBREVIATIONS	ANALYTES
meth_xcl	Methoxychlor
pcb_1016	PCB-1016
pcb_1221	PCB-1221
pcb_1232	PCB-1232
pcb_1242	PCB-1242
pcb_1248	PCB-1248
pcb_1254	PCB-1254
pcb_1260	PCB-1260
phorate	Phorate
silvex	Silvex
t_245	2,4,5_T
toxaphen	Toxaphene
METALS	
ag_t	Silver
al_t	Aluminum
as_t	Arsenic
b_t	Boron
ba_t	Barium
be_t	Beryllium
ca_t	Calcium
cd_t	Cadmium
co_t	Cobalt
cr_t	Chromium
cu_t	Copper
fe_t	Iron
hg_t	Mercury
k_t	Potassium

ABBREVIATIONS	ANALYTES
mg_t	Magnesium
mn_t	Manganese
mo_t	Molybdenum
na_t	Sodium
ni_t	Nickel
pb_t	Lead
sb_t	Antimony
se_t	Selenium
sn_t	Tin
ti_t	Titanium
tl_t	Thallium
v_t	Vanadium
zn_t	Zinc
SEMIVOLATILES	
aadimthp	alpha, alpha-Dimethylphenethylamine
aceanf12	2-Acetylaminofluorene
acetophn	Acetophenone
acnphthe	Acenaphthene
acnphthy	Acenaphthylene
amnobph4	4-Aminobiphenyl
aniline	Aniline
antracn	Anthracene
aramite	Aramite
benz_alc	Benzyl alcohol
benzdine	Benzidine
bis2ceth	Bis(2-chlorethyl)ether
bis2cexy	Bis(2-chloroethoxy)methane

ABBREVIATIONS	ANALYTES
bis2clis	Bis(2-chloroisopropyl)ether
bis2ehex	Bis(2-ethylhexyl)phthalate
bnz_a_an	Benzo[a]anthracene
bnz_a_py	Benzo[a]pyrene
bnz_b_fl	Benzo[b]fluoranthene
bnz-k-fl	Benzo[k]fluoranthene
bnzc_acd	Benzoic acid
bnzghipr	Benzo[ghi]perylene
brppeth4	4-Bromophenyl phenyl ether
butbnzph	Butyl benzyl phthalate
carbazol	Carbazole
chppeth4	4-Chlorophenyl phenyl ether
chrysene	Chrysene
clbnzilt	Chlorobenzilate
clnapht2	2-Chloronaphthalene
clphen_2	2-Chlorphenol
dbahanth	Dibenz[a,h]anthracene
dcb_33	3,3′-Dichlorobenzidine
dethylpy	0,0-Diethyl 0-2-pyrazinyl-phosphorothiaoate
diallate	Diallate
dibnzfur	Dibenzofuran
diclph24	2,4-dichlorophenol
diclph26	2,6-Dichlorophenol
diethyph	Diethyl phthalate
dimthoat	Dimethoate
dimthp24	2,4-dimethylphenol
dimthyph	Dimethyl phthalate
dinbutph	Di-n-butyl phthalate

ABBREVIATIONS	ANALYTES
dinoctph	Di-n-octyl phthalate
dintrp24	2,4-Dinitrophenol
dintrt24	2,4-Dinitrotoluene
dintrt26	2,6-Dinitrotoluene
diphhy12	1,2-Diphenylhydrazine
diphnyam	Diphenylamine
dmb_33	3,3'-Dimethylbenzidine
dmb_7_12	7,12-Dimethylbenz[a]anthracene
dntrcr46	4,6-Dinitro-o-cresol
ethmthsl	Ethyl methanesulfonate
famphur	Famphur
flranthn	Fluoranthene
fluorene	Fluorene
hexclbnz	Hexachlorobenzene
hexclbut	Hexachlorobutadiene
hexcleth	Hexachloroethane
hexclpen	Hexachlorocyclopentadiene
hexclphn	Hexachlorophene
hexclpro	Hexachloropropene
indnpyre	Indeno(1,2,3,-cd)pyrene
isodrin	Isodrin
isophron	Isophorone
isosfrol	Isosafrole
kepone	Kepone
m_cresol	m-Cresol
m_dclbnz	m-Dichlorobenzene
m_dntbnz	m-Dinitrobenzene
m_ntranl	m-Nitroaniline

ABBREVIATIONS	ANALYTES
me_mnso4	Methyl methanesulfonate
mthchla3	3-Methylcholanthrene
mthpriln	Methapyrilene
mthynph2	2-Methylnaphthalene
n_dodcan	N-Dodecane
naphthal	Naphthalene
naphthy2	2-Naphthylamine
nntrethy	N-Nitrosodiethylamine
nntrmeet	N-Nitrosomethylethylamine
nntrmorp	N-Nitrosomorpholine
nntrmthy	N-Nitrosodimethylamine
nntrnbut	N-Nitrosodi-n-butylamine
nntrphny	N-Nitrosodiphenylamine
nntrpipr	N-Nitrosopiperidine
nntrprpy	N-Nitrosodi-n-propylamine
nntrpyrr	N-Nitrosopyrrolidine
nphthy11	1-Naphthylamine
npthqn14	1,4-Naphthoquinone
ntr5_otl	5-Nitro-o-toluidine
ntrobenz	Nitrobenzene
ntrq4_lo	4-Nitroquinoline 1-oxide
o_cresol	o-Cresol
o_dclbnz	o-Dichlorobenzene
o_ntranl	o-Nitroaniline
o_ntrphn	o-Nitrophenol
o_toludn	o-Toluidine
p_dclbnz	p-Dichlorobenzene
p_ntranl	p-Nitroaniline

ABBREVIATIONS	ANALYTES
p_ntrphn	p-Nitrophenol
p_cresol	p-Cresol
p_phndam	p-Phenylenediamine
parthion	Parathion
pclranil	p-Chloroaniline
pclrmcrs	p-Chloro-m-cresol
pdimthaz	p-(Dimethylamino)azobenzene
phenol	Phenol
phnacetn	Phenacetin
phnanthr	Phenanthrene
pntclbnz	Pentachlorobenzene
pntclnbn	Pentachloronitrobenzene
pntclphn	Pentachlorophenol
prnamide	Pronimide
pyrene	Pyrene
safrole	Safrole
symtrbnz	sym-Trinitrobenzene
tcb_124	1,2,4-Trichlorobenzene
tcb_1245	1,2,4,5-Tetrachlorobenzene
tclph245	2,4,5-Trichlorophenol
tclph246	2,4,6-Trichlorophenol
tcph2346	2,3,4,6-Tetrachlorophenol
trbutphs	Tributylphosphate
triethph	0,0,0-Triethyl phosphorothiaoate
ttraethd	Tetraethyl dithiopyrophosphate

Key to Tentatively Identified Compounds by Abbreviation Name

ABBREVIATIONS	ANALYTES
VOLATILES	
hexane	Hexane
tctf_eth	Ethane, 1,1,2-Trichloro, 1,2-Trifluoro
toluene	Toluene
SEMIVOLATILES	
butoxeth	Ethanol -2(2-Butoxyethoxy)
camphene	Camphene
cyclhptr	1,3,5 Cycloheptatriene
cyclobut	Cyclobutene, Z-Propenylidine
dietgyac	Dithylene Glycol Monobutyl Ether Acetate
docosane	Docosane
hexlmeth	Hexanedioic acid, bis (1-meth...)
hexacdio	Hexanedioic acid, dioctyles
hexdcac9	9-Hexadecenoic Acid
hexdcacd	Hexadecanoic Acid
octconte	1-iodo-Octatetracontane
pntdecan	Pentadecane
tetrdcac	Tetradecanoic Acid
tetrdencn	Tetradecane
undecane	Undecane

1.0 Introduction

1.1 Purpose and Objective

The purpose and objective of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) is to determine the nature and extent of releases of hazardous waste or hazardous constituents, as defined in Section III of the Administrative Order on Consent (Docket No. II RCRA-3008[h]-92-0202 [U.S. Environmental Protection Agency 1992]), from solid waste management units (SWMUs) at the West Valley Demonstration Project (WVDP). Pursuant to the RFI Work Plan (West Valley Nuclear Services Co., Inc. December 16, 1993), the primary goal of this investigation is to collect and evaluate information to determine which of the following actions are appropriate for each SWMU or super SWMU (SSWMU): no further action, a corrective measures study, or additional investigations to support one of the other actions.

The intent of this particular volume, Volume 5, of the Resource Conservation and Recovery Act Facility Investigation Report, Miscellaneous Small Units, is threefold: 1) to detail the source and contamination characteristics of the facilities associated with the miscellaneous small units (MSU); 2) to identify any potential receptors of contamination that exist as a result of operations at these facilities; and 3) to develop conclusions and recommendations regarding information specific to the contamination assessment of the facilities obtained during the RFI.

General information pertaining to the Western New York Nuclear Service Center (WNYNSC), the regulatory history of the WVDP, the environmental setting of the site, and potential receptors of contaminants is contained in Volume 1 of this RFI report, Introduction and General Site Overview, WVDP-RFI-017 (West Valley Nuclear Services Co., Inc. March 1995).

1.2 Information Contained in this Report

Twelve SSWMUs at the WVDP have been identified in the RFI Work Plan. This volume of the RFI report, Volume 5, contains information resulting from the investigation of SSWMU #2, the MSU. SSWMU #2, located on the site as shown in Figure 1-1, consists of the demineralizer sludge ponds, effluent mixing basin (also known as the equalization basin or pond), solvent dike, and the paper waste incinerator. The location, design features, operating history, and waste management activities at SSWMU #2 are described in section 2.0. Pertinent information here includes a description of the original processes and function, interim uses and development, and current and possible future uses of the facilities, if applicable. Environmental characterization information is found in section 3.0 and RFI results are found in section 4.0. Information on potential receptors of contamination is in section 5.0, and conclusions and recommendations are in section 6.0.

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2.0 Source Characterization

2.1 Unit/Disposal Area Characterization

2.1.1 Location and Description of the Miscellaneous Small Units

SSWMU #2 is situated immediately east of the rail spur about 30 meters (100 ft) south and east of the process building. This SSWMU contains four constituent SWMUs, which are, from north to south, the solvent dike, the north and south demineralizer sludge ponds, the paper waste incinerator, and the effluent mixing basin. The MSU covers approximately 1 acre of ground as shown on Figure 2-1. The location and function of the component SWMUs are described in this section.

North and South Demineralizer Sludge Ponds (SWMU #5)

The sludge ponds were built between 1964 and 1966 during original process building construction. The sludge ponds are two unlined, rectangular basins located about 46 meters (150 ft) southeast of the process building complex. (See Fig. 2-1.) Each pond measures 15 by 30 meters (50 x 100 ft) and is about 1.5 meters (5 ft) deep; the east end of each pond is slightly deeper than the west. At times there is a small amount of standing water in the ponds, and the bottom soil typically is wet and vegetated. A headwall and drain pipe is located at the east end of each pond. As designed and constructed, the ponds discharged through a weir box and underground piping to state pollutant discharge elimination system (SPDES)-permitted outfall 005 on the south wall of the principal gully that drains eastward to Erdman Brook.

Effluent Mixing Basin (SWMU #7)

The effluent mixing basin lies about 90 meters (300 ft) east of the old warehouse and about 200 meters (650 ft) southeast of the process building complex. (See Fig. 2-1.) The basin measures 15 by 38 meters (50 x 125 ft) and is 2 meters (6.6 ft) deep. The basin has a Hypalon® liner and is underlain by a sand drain.

The effluent mixing basin was originally part of the site's conventional sewage treatment system. It now serves as the replacement for the demineralizer sludge ponds as described in section 2.1.2.

The basin originally had an operating capacity of nearly 946,250 liters (250,000 gal). It initially was placed in service in December 1985 as a process building upgrade. Discharge is through a pipe located in the bottom of the basin to the head of the principal gully that drains due eastward to Erdman Brook. The discharge point is SPDES-permitted as outfall 007.

Solvent Dike (SWMU #6)

The solvent dike, built in 1966, was an unlined impoundment located about 61 meters (200 ft) east of the process building and about 24 meters (80 ft) north of the north sludge pond. (Refer to Fig. 2-1.) It has horizontal dimensions of about 14 by 15 meters (45 x 50 ft) and was roughly "D"-shaped as seen on aerial photos taken June 27, 1984. The solvent dike was partially excavated into the surficial sand and gravel and was bermed. Using stereo-pair aerial photographs taken June 27, 1984, the bottom of the dike was estimated as lying 1.2 meters (4 ft) below then-existing grade.

The solvent dike received runoff from the solvent storage terrace (SST) through an underground pipe and acted as a holding pond. Since there was no outlet, runoff either evaporated or seeped into the soil. The solvent dike usually contained standing water and supported a dense growth of grasses, brush, and reeds. The dike was excavated, backfilled, and graded in 1987.

Paper Waste Incinerator (SWMU #10)

This unit is located about 6 meters (20 ft) east of the north end of the old warehouse. (See Fig. 2-1.) The incinerator was used to burn paper, packaging, and wood during process building operations until about 1985.

The incinerator is a PLIBRICO model 1-AGF-260 multiple-chamber retort incinerator. It is mounted on two rails on a concrete pad and has a listed capacity of 118 kilograms per hour (260 pounds per hour) of combustible material. This incinerator was operated under a New York State Department of Environmental Conservation (NYSDEC)-issued permit for air emissions throughout its service period.

Geologic and Hydrologic Setting

The MSU is located on the north plateau of the WVDP, southeast of the process building. The stratigraphic sequence beneath this SSWMU consists of (from top to bottom): the thick-bedded upper portion of the "sand and gravel unit," the Lavery till, including the intra-Lavery till-sand unit, the Kent recessional sequence, the Kent till, pre-Kent glacial drift, and bedrock. Backfill, presumably of on-site origin, is widespread within the boundaries of the MSU.

The uppermost stratigraphic unit (the sand and gravel), consisting typically of silty and sandy pebble-cobble gravel, is the shallowest water-bearing unit at the MSU. As such, it is the principal focus of groundwater monitoring in this part of the north plateau.

The sand and gravel unit beneath the MSU ranges in thickness from 3 to 6 meters (10-20 ft); it is thinnest beneath the sludge ponds and in the center of the SSWMU, and thickest beneath the solvent dike and the effluent mixing basin. Thickness variation is closely related to the relief on the surface of the underlying Lavery till. (See West Valley Nuclear Services Co., Inc. March 1995, Plates 3 and 5.)

The Lavery till consists typically of dense gray slightly pebbly clayey silt. Beneath and in the vicinity of the MSU, the till sequence ranges in thickness from 12 meters (40 ft) on the west to 27 meters (90 ft) on the east while the base of the till sequence and its contact with the next lower nontill unit — the Kent recessional sequence — lies between 1,290 and 1,340 feet national geodetic vertical datum (NGVD). (See West Valley Nuclear Services Co., Inc. March 1995, Plates 2 and 4.) Within the uppermost 6 meters (20 ft) of its total thickness the Lavery till contains a nontill unit designated as the Lavery till-sand.

On average, the till-sand is a loose gray silty sand with internal stratification. At the MSU it is overlain by about 3 to 9 meters (10-30 ft) of dense Lavery till that separates it from the surficial sand and gravel; it is underlain by about 9 to 24 meters (30-80 ft) of the same till that separates it from the underlying Kent recessional sequence. The till-sand itself, with a nominal thickness of 1.5 meters (5 ft) at the MSU, is the lower of the two shallow-seated groundwater-transmitting units in this area. Subsurface maps of the Lavery till-sand are contained in Volume 1 of the RFI as Plates 6 and 7 (West Valley Nuclear Services Co., Inc. March 1995) and the overall stratigraphic sequence described above is illustrated in cross sections A-A' through C-C' (Figs. 2-3 through 2-5). The lines of each section are located as shown on Figure 2-2.

The mean hydraulic conductivity of the surficial sand and gravel is about 1.0E-04 centimeters/second and its effective porosity is about 0.2. Hydraulic gradients between the MSU and the Erdman Brook drainage system are on the order of 0.03 to 0.04 and calculated groundwater velocities approximate 15 to 18 meters/year (50-60 ft/yr). Groundwater migration within this unit is predominantly lateral and discharge presumably occurs along seepage lines corresponding to the limit of alluvial cover on the Lavery till. Infiltration of shallowest groundwater to the till is extremely limited.

The hydraulic conductivity of the Lavery clay-silt till, both horizontally and vertically, is about 4.0E-08 centimeters/second and its effective porosity is about 0.17. Groundwater moves downward through the till at extremely low velocities. The till therefore functions as an aquitard of considerable effectiveness in all of its occurrences. As previously mentioned at the MSU, substantial thicknesses of this till occur between the surficial sand and gravel and the Lavery till-sand, and also between each of these two shallow water-bearing units and the deeper Kent recessional unit.

The hydraulic gradient within the Lavery till-sand is about 0.15 to the southeast, from the direction of the process building toward Erdman Brook and monitoring well couplet WNW0207/WNW0208 (Fig. 2-6). Seasonal variation in the flow net is very limited. As presently mapped (West Valley Nuclear Services Co., Inc. March 1995, Plates 6 and 7), the perimeter of the till-sand is truncated by and connected to the sand and gravel unit in some areas. This relationship is indicated on cross section B-B' (Fig. 2-4) which is estimated based on the relatively thin layer of till observed above the till-sand at well WNW0208. It is also possible that this layer of till is continuous, southeast of well WNW0208.

A comparison of the potentiometric map of the Lavery till-sand (Fig. 2-6) and the structure contour maps of the top of the Lavery till and the top of the Lavery till-sand (West Valley Nuclear Services Co., Inc. March 1995, Plates 3 and 6) reveal that the potentiometric surface of the till-sand consistently has lain above the top of the till-sand at all four monitoring well couplets and that the till-sand is, unequivocally, a confined water-bearing unit at and in the vicinity of the MSU.

A comparison of the fourth-quarter 1993 potentiometric maps of the Lavery till-sand (Fig. 2-6) and the surficial (sand and gravel) water-bearing unit (West Valley Nuclear Services Co., Inc. March 1995, Plate 13) reveals that the potentiometric surface of the till-sand most commonly is higher, by 0.3 to 0.9 meters (1-3 ft), than that of the surficial unit at monitoring well couplets WNW0203/WNW0204 and WNW0205/WNW0206. This same comparison also reveals that the potentiometric surface of the surficial unit typically exceeds, by 0.6 to 0.9 meters (2-3 ft), that of the till-sand at monitoring well couplets WNW0201/WNW0202 and WNW0207/WNW0208.

The foregoing relationships in head differential indicate that beneath the northern portion of the MSU groundwater will tend to migrate upward across the intervening till stratum, from the till-sand to the surficial unit, and that beneath the southern portion of the MSU groundwater will tend to migrate downward across the till stratum, from the surficial unit to the till-sand. In either instance, the low head differential and low hydraulic conductivity of the till virtually ensure that cross flow will be limited in volume and slow to respond to changes in head distribution.

2.1.2 Operating History, Waste Characterization, and Previous Studies at the Miscellaneous Small Units

Of the four facilities that comprise SSWMU #2, only the effluent mixing basin (SWMU #7) is presently in use. The sludge ponds (SWMU #5), the solvent dike (SWMU #6), and the paper incinerator (SWMU #10) have

been removed from service. Each of these SWMUs is described in this section in terms of its operating history and design, waste characterization, and any studies previously conducted at that unit.

North and South Demineralizer Sludge Ponds (SWMU #5)

The sludge ponds were designed to receive recharge solutions backflushed from the process water demineralizer and water softener, and sludge from the raw-water clarifier. The demineralizer and water softener were anion and cation exchange systems that were regenerated with 0.4M sulfuric acid and a brine solution. The raw-water clarifier used alum as a flocculant to remove particulates from process water originating at the WVDP reservoir.

Until December 1985, only the north pond was used. When the effluent mixing basin was brought on-line, inflow was diverted to the south pond. When the effluent mixing basin was operational, all inflow to the sludge ponds was rerouted to the effluent mixing basin, except for the water softener regeneration and the clarifier blowdown, which continued to go to the south pond. At that time the SPDES permit for outfall 005 was terminated.

- In July 1989, the south pond was seen discharging to outfall 005. The water softener regeneration and clarifier blowdown were still flowing into that pond. The outlet was sealed and the accumulated liquid was pumped and hard-piped to the effluent mixing basin.

- The blowdown from an effluent mixing basin recirculation filter installed between the two ponds in 1990 was directed to the south pond. This blowdown water subsequently was drained back to the effluent mixing basin.

In June 1994, upon completion of the sewage treatment plant (STP) upgrade, all flow to the sludge ponds was routed directly to the effluent mixing basin.

The waste streams and processes associated with sludge ponds are as follows:

- Water softener regeneration. The water softener is a zeolite resin ion-exchange system that exchanges sodium for calcium and magnesium. When the exchange capacity of the resin is exhausted, brine is backflushed through the resin bed and routed to the sludge pond. The spent brine would normally contain calcium, magnesium, sodium, and chloride ions and contain small quantities of zeolite resin (West Valley Nuclear Services Co., Inc. October 1992).

- Clarifier overflow and blowdown. Clarifier overflow would normally contain flocs and traces of alum, Dearborn 2511 (polyelectrolyte), bentonite, Dearborn 200 (sodium silicate), and lime, along with any other material not completely filtered from the site reservoir water. Chlorine gas (until 1993) and sodium hypochlorite (since 1993) have been added to this water as disinfectants (West Valley Nuclear Services Co., Inc. March 1993). Clarifier blowdown is similar to overflow except that concentrations of constituents are likely higher.

- Sand filter backwash. Clarified water was directed to sandfilters for additional particulate filtering. These filters are periodically backwashed, resulting in a waste flow with characteristics similar to the clarifier overflow (West Valley Nuclear Services Co., Inc. March 1993).

- Boiler blowdown. Continuous surface blowdown and periodic bottom blowdown from the utility room steam boilers remove corrosion products, treatment chemicals, and particulates from steam and condensate system piping. The treatment chemicals used are Dearborn 66 (sodium sulfite) and Dearborn 653 (ethylenediaminetetraacetic acid [EDTA]).

- Demineralizer regeneration. The demineralizers further purify the clarified water by ion-exchange for uses in the plant requiring very pure water. The current standard operating procedure (SOP) provides that the demineralizer regeneration streams be directed to the interceptors, although it can be directed to the effluent mixing basin. Previously, this stream could have been directed to either the sludge ponds or interceptors.

  Demineralizer regeneration involves backflushing with 93% sulfuric acid and 50% sodium hydroxide to exchange Na^+, Ca^{++}, Mg^{++}, SO_4^{2-}, and Cl^- ions for H^+ and OH^- ions. All of these ions would have been associated with this waste stream. Radioactive backflow from the ventilation washer was directed inadvertently to the demineralizers in 1971; this event radiologically contaminated the demineralizer system and introduced some radioactivity to the north pond when the resin beds were next regenerated (West Valley Nuclear Services Co., Inc. December 1991).

- Effluent mixing basin recirculation filter blowdown. The blowdown from this filter could reasonably be expected to contain traces of all of the above-listed utility room constituents, filtered solids from the STP effluent, and airborne debris that settled into the open effluent mixing basin. The STP effluent is discussed below under Effluent Mixing Basin.

Because the ponds acted as settling basins, waste streams entering the ponds deposited materials on the bottoms of the ponds. Material safety data sheets (MSDSs) of all materials known to have been or suspected of having been diverted to the ponds contain no mention of RCRA-regulated hazardous constituents as defined in 40 Code of Federal Regulations (CFR) Part 261, Appendix VIII.

In June 1988, five sediment cores were taken from each pond and divided into 0.3 meter (1 ft) long samples for analysis. All twenty-two samples were analyzed for radiological parameters and for extraction procedure (EP)-toxicity metals, pH, and six anions. The nonradiological results, presented in Table 2-1, show that all extract concentrations were below the RCRA regulatory levels specified in 40 CFR Part 261.24.

One sample from each pond was analyzed for priority pollutants and target compound list (TCL) semivolatiles. Chloroform, the only priority pollutant volatile compound detected, was found at a concentration of 208 ppb in the south pond sample. The chloroform may have formed from the chlorination of water in the clarifier or from the chloride ions in the spent brine from water softener regeneration. The TCL semivolatile compound di-n-butylphthalate was detected below its quantitation limit in a sample from the north pond. The pesticide 4,4′-DDT, was detected in both sludge ponds at concentrations ranging up to 13.7 ppb. These constituents were all below proposed 40 CFR Part 264 Subpart S action levels. Polychlorinated biphenyls (PCBs) were not detected in either pond.

Chloride (Cl^-) and sulfate (SO_4^{2-}) were the only major anions detected in either sludge pond, ranging in concentration from nondetect to 395 ppm and 35.8 to 536.50 ppm, respectively. These anions likely resulted from the sulfuric acid and brine solutions used to regenerate the demineralizer and the water softener. Their concentrations generally were higher in the north pond than in the south pond, which would be expected since the north pond was used for a longer period of time. The remaining four anions were not detected above their respective quantitation levels in either pond.

On November 16, 1988, two sediment samples from each pond and two background soil samples taken east of the effluent mixing basin were analyzed for seven metals. The analytical results (Table 2-2) indicate that the sludge contains arsenic, cadmium, copper, chromium, and zinc in concentrations two to eight times greater than the shallow soil in the adjacent area. For lead and nickel, the concentrations in the sludge are only slightly greater than those in the shallow soil. The regeneration solutions from the cation exchange systems and the sand filter backwash may have contributed to the increased level of metals in the ponds or this could be due to natural variation. RCRA-regulated hazardous constituent metals concentrations were below applicable proposed Subpart S action levels.

Solvent Dike (SWMU #6)

The solvent dike received runoff from the SST on the process building from 1966 to 1987, where waste solvent storage tanks 13D-15, 13D-16, and 13D-17 were located (West Valley Nuclear Services Co., Inc. February 9, 1996). Radioactive tributyl phosphate (TBP) and n-dodecane spilled from the tanks and their associated piping, mixed with precipitation runoff, and was directed through a floor drain and underground piping to the dike.

The solvent dike was removed from service in 1987 by removing and packaging the berm and excavating radiologically contaminated soils as follows:

- The drain line from the SST was rerouted to the interceptor drain line located in the upper warm aisle of the process building.
- In October 1986, before the solvent dike was closed, four samples were taken and analyzed for EP-toxicity metals. The samples were collected within the solvent dike at a depth of 0 to 46 centimeters (0-18 in). The results, presented in Table 2-3 (Englert, J.P. November 26, 1986), show that all extract concentrations were below the RCRA regulatory levels specified in 40 CFR Part 261.24.
- Standing water in the dike was pumped to the interceptors.
- About 136 cubic meters (4,800 ft^3) of radiologically contaminated soil was removed from the dike and placed in drums and boxes along with a sorbent (Waste-Loc 1200). The containerized soil presently resides in lag storage.
- The excavation was filled with clean topsoil and seeded.

The area presently is a grassy field. There is no remedial maintenance associated with the solvent dike.

By 1990, tanks and piping originally associated with the SST were removed (West Valley Nuclear Services Co., Inc. February 9, 1996).

The amount of contaminants that went into the solvent dike cannot be accurately determined. Most leakage must have occurred during transfer of spent solvent between tanks for disposal in the Nuclear Regulatory Commission (NRC)-licensed disposal area (NDA) because no large spills or tank failures have been documented.

A spent radioactively contaminated mixture of n-dodecane/TBP is the only known material present in the waste stream that went to the solvent dike. MSDSs for each of these materials list no RCRA-regulated hazardous constituents as per 40 CFR Part 261, Appendix VIII and the process specifications assigned to the n-dodecane/TBP indicate that it contained no impurities.

Effluent Mixing Basin (SWMU #7)

The effluent mixing basin was brought into service between late 1985 and early 1986. It was designed to receive inflow from the site's extended aeration sanitary STP, excess clarified water from the utility room, boiler water blowdown, and sand filter backwash. Estimated inflow volumes were (liters per day [LPD]; gallons per day [GPD]):

Sewage treatment plant	37,850 LPD (10,000 GPD)
Clarifier overflow	284,900 LPD (75,000 GPD)
Boiler blowdown	9,450 LPD (2,500 GPD)
Sand filter backwash	75,710 LPD (20,000 GPD)

The sludge pond outfall, rerouted to the basin in July 1989, added 1,900 LPD (500 GPD) to the basin. This effluent originated from water softener regeneration and clarifier blowdown.

The effluent mixing basin initially discharged through a bottom drain and underground piping to SPDES-permitted outfall 007 as discussed in section 2.1.1; however, due to historical SPDES exceedances, operational changes including the addition of new equipment, and temporary interdictions of the effluent flow were implemented. Permit exceedances before 1987 included:

1) Elevated pH levels in the effluent caused by boiler water blowdown alkalinity and activity of algae.

2) High concentrations of ammonia (NH_3).

In light of such exceedances and to correct basin chemistry, the basin was removed from service and drained in July 1988. Bottom sludges were sampled for radioactivity and then transported to the Buffalo Sewer Authority for disposal. This procedure has been repeated several times since 1988 (Connors, B.J. March 6, 1990).

In July 1989, a pH-activated shut-off valve was installed in the basin outlet piping. The valve closes if the pH falls below 6.6 or rises above 8.4.

Because of SPDES-permit exceedances, basin water was periodically shipped to the Buffalo Sewer Authority beginning in March 1990. In May 1990, a recirculation loop was added to the system. This consisted of a submersible pump in the south end of the basin, a line to a filter located between the two sludge ponds, and a return line to the north end of the basin (Young, M.W. December 7, 1989).

In 1991, piping was rearranged so that the inflow bypassed the basin and went directly to the 007 outfall. This piping arrangement allowed the basin to act as a holding pond when the effluent flow had to be restricted or stopped.

As part of an upgrade of the STP that started in summer 1993 and was completed in June 1994, the mixing basin was drained and cleaned, the Hypalon liner was inspected, and the previously described recirculation loop

was dismantled. In the new configuration, the basin receives the utility room flow, which formerly had been directed to the sludge ponds. The basin now discharges to the inflow stream of the STP; STP effluent no longer flows into the basin.

The type and quantity of waste in the utility room flows has been described above in the North and South Demineralizer Sludge Ponds section.

The STP effluent is SPDES-permitted sanitary sewage. Chlorine and sodium hypochlorite were added during sewage treatment as disinfectants and sodium bisulfate was added to remove excess chlorine. MSDSs for these materials list no Appendix VIII RCRA-regulated hazardous constituents (as per 40 CFR Part 261). The mixing basin no longer receives STP effluent and was drained and cleaned before being returned to service as a settling basin. There were no gross failures of the liner during the period in which it did receive that effluent.

Current constituents of the STP effluent are not expected to be found in the mixing basin and are not expected to be present within the basin or underlying soil.

With the addition of Dearborn 2005, a neutralizing amine, the effluent mixing basin received the same waste flows as the sludge ponds. As of March 1994, the basin has received all of the former sludge pond inflow and has functioned as a settling basin.

Paper Waste Incinerator (SWMU #10)

The paper waste incinerator was used from 1970 to 1985; the ash was routinely dumped on the ground at the construction and demolition debris landfill (CDDL). The unit was permitted as an air emission source (permit 042200-0114-00004WR). Use of the incinerator stopped in 1985 and the paper and packaging waste was contracted for disposal off-site. The permit was allowed to expire in 1990 and the incinerator was sealed by the NYSDEC in January 1991 and padlocked to prevent its use. Volumes of generated ash were not recorded. Samples of ash were taken before sealing and 22 kilograms (48 pounds) of ash were shipped for disposal off-site. The toxicity characteristic leachate procedure (TCLP) analysis of the ash yielded only one positive detect for cadmium and it was below the regulatory limit. In May 1996, the incinerator was removed from its original location, disassembled and placed in on-site storage.

In July 1990, two composite soil samples were taken from the 0 to 15 centimeter (0-6 in) and 15 to 46 centimeter (6-18 in) depth intervals southeast of the incinerator. The soils were analyzed for TCLP metals (Table 2-4). Radiological parameter analyses were also performed but are not presented as part of this investigation. All TCLP extract concentrations were below the RCRA regulatory levels specified in 40 CFR Part 261.24.

Historical Groundwater Sampling

From 1991 to the present, groundwater from the sand and gravel unit and till-sand unit in the vicinity of SSWMU #2 has been routinely sampled for contamination indicator parameters and groundwater quality parameters (Table 2-5). From 1991 through the end of 1992, the groundwater monitoring year was divided into two semiannual periods and four samples were taken from each MSU well during each period. The analytical schedule comprised three categories: contamination indicator parameters, including Appendix IX volatile organic compounds (collected eight times a year); groundwater quality parameters (collected twice a year); and U.S. Environmental Protection Agency (EPA) interim primary drinking water parameters (collected

a total of four times during the 1991-1992 period). This schedule was implemented through the end of 1992. The groundwater indicator parameter data collected before the expanded sampling in support of the RFI program are described below.

Indicator Parameter Results (1991-1992) - Sand and Gravel Unit

A review of 1991 to 1992 volatile organic compound (VOC) and semivolatile organic compound (SVOC) data before the initiation of the expanded groundwater characterization program revealed no SVOC detections for the MSU sand and gravel unit monitoring wells. Four VOCs were detected at these wells during 1991 to 1992 (Table 2-6). Acetone was detected at an estimated concentration of 6.0 μg/L at upgradient well WNW0201 during one sampling event in 1991. Acetone is generally regarded as a common laboratory contaminant. Toluene, the RCRA-regulated hazardous constituent, was detected at an estimated concentration of 0.4 μg/L at downgradient well WNW0205 during one sampling event during 1992. This detection was well below its proposed Subpart S action level. At downgradient well WNW8605, the RCRA-regulated hazardous constituents pyridine and trichlorofluoromethane were detected at estimated concentrations of 51.0 μg/L and 1.0 μg/L, respectively, during one 1991 sampling event. The pyridine concentration was above its proposed Subpart S action level. The detection limit for pyridine analyzed as a VOC is 1,000 μg/L.

Additionally, carbon disulfide was detected a number of times during 1991-1992 at MSU wells, but its presence is thought to be due to the acid preservation method of the sample.

Indicator Parameter Results (1991-1992) - Till-Sand Unit

A review of 1991 to 1992 VOC and SVOC data before the initiation of the expanded groundwater characterization program revealed no SVOC detections for the MSU till-sand unit monitoring wells. The VOCs acetone, toluene, and xylene were detected at upgradient well WNW0202 sporadically during 1991 to 1993 (Table 2-6). Estimated concentrations ranged from 2.0 μg/L to 8.0 μg/L for acetone, 0.5 μg/L to 1.2 μg/L for toluene, and 0.5 μg/L to 2.2 μg/L for xylene during this period. Acetone is a common laboratory contaminant. All detections of the RCRA-regulated hazardous constituent toluene were well below the proposed Subpart S action level.

In 1993, a statistical analysis of indicator parameter results (pH, specific conductance, nonpurgeable organic carbon [NPOC], total organic halogen [TOX], gross alpha, gross beta, and tritium) from the 1991 to 1992 period, using an analysis of variance (ANOVA) in the EPA-developed software GRITS/STAT, version 4.2 (November 1992), was used to revise the groundwater monitoring program to reflect the findings of the 1991 and 1992 sampling and select wells for the two expanded sampling rounds to support the RFI program. An evaluation of the presence of volatile organic detections and best professional judgment supplemented the statistical analysis. Beginning in the fourth quarter 1993, the frequency of sampling for the contamination indicator parameters was reduced to four times a year. The revised program was reviewed with EPA and NYSDEC before its implementation. An assessment of the results of the RFI expanded program is contained in section 4.0.

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3.0 Environmental Characterization

The process knowledge information, historical sampling results, and the hydrogeologic setting formed the basis for confirmatory sampling performed during the RFI at the MSU. This sampling, as specified in the RFI Work Plan, WVDP-RFI-014 (West Valley Nuclear Services Co., Inc. December 16, 1993), concentrated on collecting two rounds of groundwater as well as specific soil and sediment samples to supply the data necessary to evaluate the MSU. These media were identified in the RFI Work Plan as having the highest likelihood for being pathways for potential releases.

Field quality control (QC) samples were collected and laboratory QC was performed as specified in the RFI Work Plan. Section 4.0 provides a description of the results of the quality assurance/quality control (QA/QC) samples.

Decontamination procedures that were followed during field sampling were in accordance with the approved procedures contained in the RFI Work Plan.

3.1 Sampling Activities

Surface Soil

A surface soil sample was collected in the area of the waste paper incinerator (SS-9) and at one background location, SS-7. (Sampling locations are shown on Fig. 2-1.)

Subsurface Soil

Subsurface soil sampling and analyses were conducted in accordance with the protocols and procedures identified in the RFI Work Plan. Subsurface soil samples were collected from four borings designed to characterize the MSU (BH-11, BH-12, BH-15, and BH-16) and one background borehole, BH-38. (See Figs. 1-1 and 2-1.) BH-12 and BH-15 were located downgradient of the solvent dike and demineralizer sludge ponds, respectively. BH-11 was located within the boundaries of the solvent dike, while BH-16 was located downgradient of the entire SSWMU. Table 3-1 shows the borehole depths and the parameters analyzed. The sample depth intervals, total organic vapor, real-time radiation readings, and the percent recovery within each split-spoon sample were recorded on borehole logs (Appendix A). The borehole sampling program is summarized in Table B-7 of the RFI Work Plan.

No volatile organic vapors or radioactivity were detected above background by the field monitoring instruments during the drilling program. All samples were packaged and shipped to EcoTek LSI. The samples were analyzed in accordance with the standard and recommended procedures identified in the RFI Work Plan for TCL and target analyte list (TAL) analytes.

Sediment

Sediment sampling and analyses were conducted in accordance with the protocols and procedures identified in the RFI Work Plan. Sediment samples were collected from four locations (ST-27, ST-28, ST-35, and ST-36) near and within the MSU and one background location, ST-26. ST-27 and ST-28 were located in drainage ditches downstream of this unit, while locations ST-35 and ST-36 were within the boundaries of the south and north demineralizer sludge ponds, respectively. Sampling locations are shown on Figure 2-1.

Groundwater

As described in the RFI Work Plan, 1991 and 1992 facility-wide groundwater data were evaluated using the EPA-developed GRITS/STAT v.4.2 software, process knowledge, and hydrogeologic information to assess the presence of contaminants in facility groundwater. That evaluation resulted in the selection of specific wells at which two rounds of expanded characterization were performed in accordance with the RFI Work Plan. Expanded characterization was conducted at forty-nine locations during the fourth-quarter 1993 and second-quarter 1994 sampling rounds. This included MSU wells WNW0201, WNW0202, WNW0203, and WNW0205. Groundwater was analyzed for TCL VOCs, SVOCs, PCBs, pesticides, and TAL metals and library scans were conducted to distinguish tentatively identified compounds (TICs). The goal of expanded characterization at the MSU was to evaluate whether RCRA-regulated hazardous waste or hazardous constituents had been released from this SSWMU and to confirm historical information indicating that groundwater has not been significantly impacted.

Five monitoring wells were proposed in the RFI Work Plan as sand and gravel unit monitoring locations for the MSU. Well WNW0201 is upgradient in the sand and gravel unit and wells WNW0203, WNW0205, WNW0207, and WNW8606 are downgradient. An additional downgradient well WNW8605 was added because compounds detected at WNW8605 coincide with chemicals known to be associated with the MSU due to process knowledge; however, well WNW8605 is also immediately downgradient of former lagoon 1, which is also a potential source for detected contamination in this well.

The sand and gravel unit background wells are WNW0301, WNW0401, and WNW0706. The use of these wells represents a change from the RFI Work Plan, which identified well NB-1S as the north plateau background well. It recently has been determined that wells WNW0301, WNW0401, and WNW0706 are more appropriate wells to assess background conditions in the sand and gravel unit because NB-1S was completed close to bedrock and probably reflects bedrock groundwater chemistry more closely than it reflects the chemistry of groundwater in the overburden. Wells WNW0301, WNW0401, and WNW0706 are located upgradient of all SWMUs and are now considered more appropriately located, both aerially and stratigraphically, than NB-1S to monitor background groundwater quality in the sand and gravel unit.

Four wells at the MSU, previously identified in the RFI Work Plan, monitor the till-sand unit. Wells WNW0202 and WNW0204 are upgradient in the till-sand unit and wells WNW0206 and WNW0208 are downgradient. Till-sand background wells are WNW0302, WNW0402, and WNW0404.

Wells WNW8605 and WNW8606 are 10 centimeter (4 in) internal diameter slotted polyvinyl chloride (PVC) installations with 1.5 meter (5 ft) long screens. The other wells are 5 centimeter (2 in) internal diameter wire-wound channel pack installations constructed of Type 304 stainless steel; the well screens are either 1.5 meter (5 ft) or 3 meter (10 ft) long. Specifications for the MSU monitoring well array are contained in Table 3-2 and the borehole logs and well schematics are contained in Appendix B.

4.0 Resource Conservation and Recovery Act Facility Investigation Results

4.1 Groundwater

4.1.1 Sand and Gravel Unit

Indicator Parameter Results

A review of the contamination indicator parameter results from each of the MSU sand and gravel monitoring well locations from January 1991 through July 1994 was performed to supplement the findings of the two expanded rounds. Those results are provided in Appendix C.

The indicator parameter data for pH, specific conductance, NPOC, and TOX indicate that groundwater quality has not been affected by this unit. The pH results for all MSU sand and gravel wells range between 5.86 and 7.02 for both upgradient and downgradient wells. The other indicator results for wells monitoring the MSU are either similar to or less than background.

Wells monitoring the MSU sand and gravel unit were among those selected to undergo expanded groundwater monitoring in the fourth quarter of 1993 and the second quarter of 1994. The results of the expanded program are discussed below.

Expanded Groundwater Evaluation: Fourth Quarter 1993 and Second Quarter 1994

Based on the statistical evaluation of 1991 and 1992 radiometric and nonradiometric contamination indicator parameters and based on process knowledge, upgradient well WNW0201 and downgradient wells WNW0203, WNW0205, and WNW8605 were selected for expanded characterization (Dames and Moore September 1993) of the sand and gravel unit. Although radiometric parameters were used in the evaluation, the data are not being presented as a part of this investigation.

Groundwater from these wells was analyzed for TCL VOCs, TCL SVOCs, pesticides and PCBs, and TAL metals during the expanded groundwater characterization that was conducted during the fourth quarter of 1993 and the second quarter of 1994. The analytical results, described in laboratory information management system (LIMS) abbreviated terminology (see Key to Analyte Abbreviations) are provided in Appendix D and are summarized below.

- Volatile Organic Compounds

VOCs were not detected in any of the sand and gravel monitoring wells during either round of the expanded program (Fig. 2-7).

- Semivolatile Organic Compounds

Three SVOCs were detected in wells monitoring the MSU. The RCRA-regulated hazardous constituent butyl benzyl phthalate was detected at an estimated concentration of 1.9 μg/L at downgradient well WNW8605 during the second quarter of 1994. This compound was not detected during the fourth quarter of 1993. The concentration was below the proposed Subpart S action level. Bis (2-ethylhexyl) phthalate, which is not a RCRA-regulated hazardous constituent, was detected at an estimated concentration of 1.9 μg/L at well

WNW8605 during the second quarter of 1994. Again, this compound was not detected during the fourth quarter of 1993, and its concentration was below the proposed Subpart S action level. Phthalates are generally regarded as laboratory contaminants.

TBP was identified in the SVOC library search at an estimated concentration of 500 μg/L during the second quarter of 1994. TBP is not a RCRA-regulated hazardous constituent.

- Pesticides/PCBs

No pesticides or PCBs were detected at any of the sand and gravel monitoring wells during the fourth quarter of 1993 or the second quarter of 1994.

- Target Analyte List Metals

The RCRA-regulated hazardous constituents antimony, arsenic, barium, cadmium, chromium, mercury, nickel, selenium, and silver were detected in some MSU monitoring wells during the expanded program. All TAL metals results (Appendix D) were below proposed Subpart S action levels for all RCRA-regulated hazardous constituent metals with the exception of chromium in downgradient well WNW0205 and nickel in downgradient well WNW0203.

Chromium was above the proposed Subpart S action level of 100 μg/L total chromium at well WNW0205 during the second quarter of 1994 with a concentration of 120 μg/L, but was below the proposed Subpart S action level during the fourth quarter of 1993 at this same location. (See Figure 2-7.) Well WNW0205 chromium results were also above the New York State Class GA groundwater standard of 50 μg/L; however, the concentrations were within site background ranges. Because analysis for expanded groundwater program parameters was not performed at background wells WNW0301, WNW0401, and WNW0706 during this time period, the background range for chromium was taken from 1991 and 1992 data from these locations. The metals data collected from background wells WNW0301, WNW0401, and WNW0706 during the 1991-1992 sampling is included in Appendix C.

Nickel was detected above its proposed Subpart S action level of 100 μg/L at well WNW0203 during both the fourth quarter of 1993 and the second quarter of 1994 at concentrations of 154 μg/L and 186 μg/L, respectively. A field duplicate collected from well WNW0203 during the second quarter of 1994 had a nickel concentration of 174 μg/L. Groundwater from background wells WNW0301, WNW0401, and WNW0706, was analyzed for nickel in 1995 - 1996 (Table 4-1). The nickel concentrations measured in well WNW0203 are within background concentrations for the sand and gravel unit.

The remaining RCRA-regulated hazardous constituents were not consistently detected during the two expanded groundwater sampling rounds. Antimony was detected at well WNW8605 during the fourth quarter of 1993 at a concentration of 16 μg/L, which was slightly above the proposed Subpart S action level. The concentration for antimony at this same well was reported as <20 μg/L for the second quarter of 1994. It is probable that the elevated antimony concentration is due to natural variation.

A statistical analysis of arsenic, barium, cadmium, chromium, mercury, lead, silver, and selenium concentrations in MSU sand and gravel monitoring locations is depicted in Appendix E. The samples were taken from these locations during routine and expanded groundwater monitoring from 1991 to the present. This list of metals represents the original drinking water parameter metals analyzed at the site since 1991 and

for which a large enough population exists to perform statistics. Since antimony, beryllium, and nickel were only analyzed during the two expanded rounds, they were not part of the statistical analysis. The 99% confidence intervals, which are shown as vertical bars around a mean point (tick mark on bar), were constructed using GRITS/STAT v.4.2 software (U.S. Environmental Protection Agency November 1992) and plotted with Quattro Pro for Windows version 5.0.

Wells with confidence intervals having lower limits exceeding upper limits of background confidence intervals statistically indicate groundwater concentrations are not within background intervals. Wells that show confidence intervals overlapping background confidence intervals can be considered to have metals concentrations similar to background wells (U.S. Environmental Protection Agency 1989; November 1992; Davis 1986).

It is important to note that 1) all results represent analyses of unfiltered samples and represent total metals, 2) the data units are micrograms per liter (μg/L), 3) the number of results from a given location range from four to six depending on whether or not that location was included in the 1993-1994 expanded program, and 4) the results were obtained from different analytical laboratories.

A review of this statistical comparison of the confidence intervals in Appendix E indicates that groundwater downgradient of the MSU does not appear to have been impacted by the unit for these metals. Rather, these concentrations reflect natural variation in these metals.

4.1.2 Till-Sand Unit

Indicator Parameter Results

A review of the contamination indicator parameter results from each of the MSU till-sand monitoring well locations from January 1991 through July 1994 was performed to supplement the findings of the two expanded rounds. The contamination indicator parameter data is provided in Appendix C.

The indicator parameter data for specific conductance, NPOC and TOX, suggest that groundwater quality has not been significantly affected by this unit. The indicator results for wells monitoring the MSU are either similar or less than background.

The pH results for MSU till-sand wells, with the exception of well WNW0202, range between 7.08 and 9.07 for both upgradient and downgradient wells. Levels of pH in upgradient well WNW0202 have consistently been in the 11 to 12 range, which is well above the pH determined in other till-sand wells. This chronically elevated pH is attributed to grout contamination during well construction, an explanation that also is consistent with the ion balance observed in water from this well. The very localized occurrence of these pH levels was recently substantiated by the analytical results for groundwater taken from Geoprobe® samples GP-57 and GP-58. This water was taken from the base of the till-sand at distances of 1.5 to 3 meters (5-10 ft) from WNW0202 and had pH values of 8.0 to 8.2.

Expanded Groundwater Evaluation: Fourth Quarter 1993 and Second Quarter 1994

Based on the statistical evaluation of contamination indicator parameters and the presence of trace concentrations of VOCs, upgradient till-sand unit monitoring well WNW0202 was selected for expanded characterization.

Groundwater from this well was analyzed for TCL VOCs, TCL SVOCs, pesticides and PCBs, and TAL metals during the expanded groundwater characterization that was conducted during the fourth quarter of 1993 and the second quarter of 1994. The data from the expanded groundwater program from this well are provided in Appendix D and is summarized below.

- Volatile Organic Compounds

Two volatiles, toluene and xylene, were detected at estimated concentrations of 0.80 μg/L and 0.70 μg/L, respectively, in upgradient well WNW0202 during the second quarter of 1994. Neither compound was detected during the fourth quarter of 1993 at this location. The detected concentrations of these compounds were below the proposed Subpart S action levels.

- Semivolatile Organic Compounds

There were no detected SVOCs for the till-sand unit expanded groundwater program well during the fourth quarter of 1993 or the second quarter of 1994.

- Pesticides/PCBs

No pesticides or PCBs were detected at well location WNW0202 during the fourth quarter of 1993 or the second quarter of 1994.

- Target Analyte List Metals

Barium, a RCRA-regulated hazardous constituent, was detected at well WNW0202 during the fourth quarter of 1993 and the second quarter of 1994 at concentrations of 309 μg/L and 252 μg/L, respectively (Appendix D). These concentrations are well below the proposed Subpart S action level and New York State Class GA groundwater standard, as well as background concentrations at background well WNW0402.

A statistical analysis of arsenic, barium, cadmium, chromium, mercury, lead, silver, and selenium concentrations in MSU till-sand monitoring wells is depicted in Appendix E.

This statistical comparison indicates that groundwater downgradient of the MSU has not been impacted by the unit for these metals.

4.2 Soil

The results of the RFI soil sampling program conducted during 1993 at the MSU are summarized below. (See Fig. 2-7.)

4.2.1 Shallow Soil Sampling Program

Shallow soil sampling location SS-9 was chosen to evaluate shallow soil conditions in the vicinity of the waste paper incinerator. The sample was analyzed for TCL SVOCs and TAL metals. The background shallow soil sample was collected at location SS-7. These were composite samples collected as described in the RFI Work Plan (West Valley Nuclear Services Co., Inc. December 16, 1993).

The analytical results for SS-9 and SS-7 are presented in Table 4-2 and Appendix F. A summary is given below.

• Semivolatile Organic Compounds

Thirteen SVOCs were detected in soil from location SS-9 (Appendix F); seven of these are RCRA-regulated hazardous constituents. Four of these seven exceeded NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Clean-up Objectives (New York State Department of Environmental Conservation January 24, 1994). These constituents were compared to TAGM objectives because proposed Subpart S action levels were unavailable. The four RCRA-regulated hazardous constituents above the TAGM objectives are benzo-a-anthracene at 692 μg/kg, benzo-a-pyrene at 798.7 μg/kg, benzo-b-fluoranthene at 1,286 μg/kg, and chrysene at 990.5 μg/kg. The other three RCRA-regulated hazardous constituents are fluoranthene at 2,012.6 μg/kg, indeno-1,2,3-pyrene at 448.5 μg/kg, and benzo-k-fluoranthene at an estimated concentration of 395 μg/kg.

Due to the location of the sample collection, the presence of polycyclic aromatic hydrocarbons (PAHs) are thought to be associated with nearby asphalt and activities along the railroad spur.

• Target Analyte List Metals

The surface soil from location SS-9 was analyzed for TAL metals (Table 4-2). The results were compared to proposed 40 CFR 264, Subpart S action levels, NYSDEC TAGM 4046 recommended clean-up objectives, the eastern U.S. background range cited in TAGM 4046, and the WVDP benchmark level. (See Table 4-2.) Considering the natural variability in soil metals concentrations, a concentration will not be considered as exceeding site background levels unless it is at least three times greater than the measured background concentration. The WVDP benchmark level was used where the TAGM 4046 recommended clean-up objective for a particular analyte references the measured site background concentration.

RCRA-regulated hazardous constituent metals were not detected above proposed Subpart S action levels except for beryllium, which was detected above its proposed Subpart S level of 0.2 mg/kg in sample SS-09 at 0.33 mg/kg and in background sample SS-07 at 0.45 mg/kg. Beryllium is naturally present across the site at concentrations above the proposed Subpart S action level.

The results were compared to TAGM 4046 clean-up objectives for those analytes with action levels not proposed in Subpart S. No RCRA-regulated hazardous constituents were detected above these objectives.

4.2.2 Deep Soil Drilling Program

Samples from four boreholes were collected to characterize MSU deep soils. BH-12 and BH-15 were drilled downgradient of the solvent dike and demineralizer sludge ponds, respectively. BH-11 was within the boundaries of the solvent dike, while BH-16 was hydraulically downgradient of the entire SSWMU. The background borehole is BH-38. Samples were collected as described in the RFI Work Plan and the samples were analyzed for TCL VOCs, TCL SVOCs, and TAL metals. (See Appendix F.)

• Volatile Organic Compounds

Soils taken from the 0.6 to 1.2 meter (2-4 ft) and 3.7 to 4.3 meter (12-14 ft) intervals from BH-11, the 1.8 to 2.4 meter (6-8 ft) interval from BH-12, the 3.7 to 4.3 meter (12-14 ft) interval from BH-15, and the 1.2 to 1.8 meter (4-6 ft) interval from BH-16 were analyzed for VOCs. (See Appendix F.) Because of laboratory error, volatiles had to be resampled at BH-15 and BH-16. In each instance, the new location was positioned within 1.5 meters (5 ft) of the initial borehole. The replacement boreholes were designated BH-15R and BH-16R.

The VOCs acetone, methylene chloride, toluene, and 1,1,2-trichloro-1,2,2-trifluoroethane (TCTFE) were detected in soil from these boreholes (Appendix F). Positive detections included acetone in BH-16R (4-6 ft); methylene chloride in BH-11 (2-4 ft and 12-14 ft), BH-12 (6-8 ft), BH-15R (11-13 ft), and BH-16R (4-6 ft); TCTFE in BH-11 (2-4 ft and 12-14 ft); and toluene in BH-11 (2-4 ft and 12-14 ft) and BH-12 (6-8 ft). In all instances, toluene and TCTFE were identified as TICs during the semivolatile analyses and the results were qualified as unreliable due to blank contamination. Detections of acetone and methylene chloride were qualified in all instances because of laboratory blank contamination by these compounds. Acetone and methylene chloride are considered common laboratory contaminants. None of these VOCs are considered to be present in the soil from these boreholes.

• Semivolatile Organic Compounds

In accordance with the RFI Work Plan, and with the exception of TBP and n-dodecane, SVOC analyses were not performed on borehole samples collected at the MSU. Soils from the 1.8 to 2.4 meter (6-8 ft) depth interval from BH-12 and the 0.6 to 1.2 meter (2-4 ft) and 3.7 to 4.3 meter (12-14 ft) depth intervals at BH-11 were analyzed for TBP and n-dodecane (Appendix F). Neither compound was positively detected in any of these samples.

• Target Analyte List Metals

Soil from each depth interval selected for analysis was analyzed for TAL metals (Table 4-3).

No RCRA-regulated hazardous constituent metals were detected above proposed Subpart S action levels except beryllium in all samples. In all instances, beryllium concentrations were below the WVDP site benchmark level. Sodium was detected in the 2- to 4-foot interval of BH-15 at an estimated concentration above the TAGM objective. However, this detection was below the eastern U.S. background range for sodium.

• Radiological Parameters

Radionuclide data obtained from subsurface soil collected from boreholes at the MSU during the 1993 WVDP soils sampling program were compared to radionuclide results from BH-38, the background location for sand and gravel unit, and other screening values. The subsurface radiological data that exceeded background screening levels is summarized in Table 4-4.

The majority of soil samples that exceed background concentrations for radioactivity are associated with boreholes BH-11 and BH-12. Borehole BH-11 was located within the solvent dike and borehole BH-12 was located hydraulically downgradient of the solvent dike.

The radionuclide results from BH-11 and BH-12 indicate that above background concentrations of natural and fission product radionuclides including cesium-137 (Cs-137) and strontium-90 (Sr-90) are present in soil in and around the solvent dike. The presence of these radionuclides is not unexpected since the solvent dike received precipitation runoff from the SST during NFS fuel reprocessing operations. The SST was located on the south end of the NFS process building and it contained three storage tanks that managed spent TBP/n-dodecane solution.

The TBP/n-dodecane solution was used during reprocessing to separate uranium and plutonium from the fission products that were present in the aqueous dissolver solutions. Spent TBP/n-dodecane solution contained small amounts of fission products such as Cs-137 and Sr-90 and uranium and plutonium isotopes. Spills and leaks that may have occurred from these tanks during waste transfer operations would have been transferred by precipitation to the solvent dike via the SST drain and an underground drain line that emptied into the solvent dike. These borings yielded no elevated levels of other chemical constituents.

4.2.3 Stream/Ditch Sediment Sampling

Stream and ditch sediment sampling conducted during 1993 was designed to evaluate whether chemical contaminants were introduced to surface water passages that drain the MSU or to evaluate the sediments within individual units (sludge ponds). The background sediment location is ST-26. Locations ST-35 and ST-36 are within the boundaries of the south and north demineralizer sludge ponds, respectively, and ST-27 and ST-28 are in drainage ditches downstream of one or more of the individual SWMUs. (Refer to Fig. 2-1.)

Sampling was conducted in accordance with the RFI Work Plan. Silt and mud deposits in the stream channels were sampled rather than coarse-grained sediments since potential radioactive and chemical contaminants are more likely to associate with these fine-grained sediments through ion-exchange and sorption processes. The sediment collected at these locations was analyzed for TCL VOCs and SVOCs at ST-35 and ST-36, and for TAL metals at ST-27, ST-28, ST-35, and ST-36.

• Volatile Organic Compounds

Sediments collected at locations ST-35 and ST-36 were analyzed for TCL VOCs (Appendix F). VOCs were not detected in any instance that could not be attributed to method blank contamination.

• Semivolatile Organic Compounds

Sediment collected at ST-35 and ST-36 was analyzed for TCL SVOCs (Appendix F). The RCRA-regulated hazardous constituents benzo-a-anthracene estimated at 122.3 μg/kg, benzo-b-fluoranthene estimated at 204.9 μg/kg, chrysene estimated at 163.6 μg/kg, and fluoranthene estimated at 433.5 μg/kg were detected at ST-36. Other positive detections at ST-36 included bis (2-ethylhexyl) phthalate estimated at 127.9 μg/kg, phenanthrene estimated at 258.1 μg/kg, pyrene estimated at 287.4 μg/kg, and the TICs 9-hexadecanoic acid estimated at 2,000 μg/kg and hexadecanoic acid estimated at 3,000 μg/kg. The only SVOC detected at ST-35 was the TIC hexadecanoic acid at an estimated concentration of 400 μg/kg.

Proposed Subpart S action levels are not available for the four RCRA-regulated hazardous constituents detected in ST-36. However, when compared to TAGM clean-up objectives, all were present at levels below those objectives. The remaining estimated detections were also all below the associated TAGM objectives. The non-RCRA regulated hazardous constituent, bis (2-ethylhexyl) phthalate, was below its proposed Subpart S

action level as well as below the TAGM objective. In addition, phthalates have been listed by the regulatory agencies as common laboratory contaminants.

- Target Analyte List Metals

Sediments collected at ST-27, ST-28, ST-35, and ST-36 were analyzed for TAL metals (Table 4-5). The results were compared to proposed Subpart S action levels, TAGM recommended clean-up objectives, the eastern U.S. background ranges cited in the TAGM, and the WVDP benchmark levels.

No RCRA-regulated hazardous constituents were detected above their respective Subpart S action levels except for beryllium, which was within the expected site background range. Mercury, a RCRA-regulated hazardous constituent, was detected at ST-36 at a concentration of 5.37 mg/kg, below its proposed Subpart S action level. Fourteen sediment samples collected in June 1988 and analyzed for EP-toxicity metals were all nondetect for mercury, indicating that mercury in these sediments is not in a form that is readily leachable.

The results were compared to TAGM clean-up objectives for those analytes with proposed action levels not contained in proposed Subpart S. A result for aluminum at ST-27, estimated results for calcium at ST-27 and ST-36, manganese at ST-27 and ST-28, and sodium at ST-27 and ST-35 exceeded their respective TAGM objectives. When these results were compared to their eastern U.S. background ranges, only aluminum at 49,600 mg/kg at ST-27 exceeded its range. Aluminum, a non-RCRA regulated hazardous constituent, was also above the WVDP benchmark level. Considering the natural variation in metals concentrations that can occur in stream sediment, the foregoing results probably represent intrinsic geochemical variation. ST-35 and ST-36 are expected to contain some of these constituents due to past sludge pond use.

4.2.4 Quality Assurance/Quality Control Summary

The quality, reliability, and validity of the soil and sediment collected at the MSU is summarized in this section. Data validation records are available in site files.

Field QA/QC Review

Field quality assurance (QA) audits were performed during execution of RFI field activities. The surveillances revealed that the work was conducted in conformance with the RFI Work Plan.

Field QC samples used to evaluate sampling techniques included trip blanks, equipment blanks, and field duplicates.

Laboratory QC Review

Data for the soils program and two expanded groundwater monitoring rounds were validated using the guidelines contained in the RFI Work Plan. Data qualifying flags have been applied to data points that are associated with QC anomalies. The data qualifying flags provide the data user with guidance regarding the use of the data. The following data qualifiers have been used in the data tables contained in Appendix D and the Key to Analyte Abbreviations.

"U" - The data entry should be treated as not detected above the reporting limit.

"J" - The data entry should be considered quantitatively biased or inaccurate; however, the data are usable as presented.

"UJ" - The data entry should be considered not detected. Although the detection limit may be imprecise or inaccurate, the data are usable as presented.

"R" - The data entry is qualitatively or quantitatively unreliable.

"F" - The data point is subject to interferences that in the professional judgement of the reviewer requires special consideration by the data user although not subject to qualification under normal validation protocols. The data should be used only as detailed in the validation report.

For the overall program, the data meet the QA objectives as defined in the RFI Work Plan.

Precision and accuracy criteria were met with few exceptions. Data qualifying flags have been applied to any data associated with QC results that fail to meet acceptance criteria.

The completeness for the overall soils program as defined by being usable (non-"R" flagged) data was greater than 98.0% for all parameters requested, as shown in Table 4-6. The completeness for the two expanded groundwater monitoring rounds was 98% for the fourth-quarter 1993 round and greater than 96.0% for the second-quarter 1994 round, respectively, for all parameters requested.

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5.0 Fate and Transport

The wastes suspected of being managed in the MSU are identified in section 2.0 of this report. No RCRA-regulated hazardous constituents are known to have been present in these materials. The following is a chemical properties and toxic profile summary of the VOCs and SVOCs that have been detected downgradient of the MSU during environmental sampling. (See section 3.0.)

5.1 Chemical Properties and Toxic Profile

The transport of heavy metals and other inorganic waste constituents through environmental media is regulated by physicochemical properties that determine the processes of physical sorption, ion exchange, and precipitation. Similarly, physical and chemical parameters such as water solubility, vapor pressure, and octanol-water partitioning, determine the behavior and fate of organic materials released into the environment. The extent to which any particular physicochemical parameter influences contaminant mobility is dependent in large part on such local environmental factors as pH, redox potential, temperature, and the concentration of other constituents in the media of concern. Thus, the migration of any particular contaminant tends to be highly system-specific. However, the examination of a few basic physicochemical properties can provide insight into the anticipated behavior and fate of chemicals released into the environment.

Unless otherwise noted, the information in this section was derived from the following sources: U.S. Environmental Protection Agency (December 1979), Dragun (1988), and Verschueren (1983).

Polycyclic Aromatic Hydrocarbons : PAHs are a class of compounds characterized by molecules containing three or more fused unsaturated carbon rings. These compounds are practically insoluble in water. In general, PAHs adsorb strongly onto organic and mineral particulates; their transport through soil and water is determined largely by the hydrogeologic condition of the environmental system. The predominant fate process for PAHs dissolved in surface waters is probably direct photolysis, which occurs at a rapid rate. The ultimate fate of those that accumulate in soils or sediments is believed to be biodegradation and biotransformation by microbes and multicellular organisms. Even though these compounds are highly lipophilic (i.e., the log octanol/water partition coefficient is high) and are readily taken up across cell membranes, bioaccumulation is not a significant long-term fate process since PAHs are readily metabolized by all organisms, including humans (Pike 1992). Based upon available information (summarized in U.S. Environmental Protection Agency December 1979), volatilization, hydrolysis, and oxidation are also unlikely to significantly influence the fate of PAHs in the environment. PAHs found during the MSU sampling program can reasonably be associated with nearby asphalt paving and the presence of the rail spur.

Tributyl Phosphate : TBP is a nonflammable, nonexplosive, colorless, odorless liquid that has a boiling point of 289°C (550°F), a vapor pressure of 0.07 mm Hg at 20°C, and an aqueous solubility of 0.422 mg/L (25°C). TBP is thermally unstable and decomposes at temperatures below its boiling point. It is also believed to hydrolyse readily in either acidic, neutral, or alkaline solutions. The primary breakdown products of TBP are the dibutyl and monobutyl phosphates.

The fate and transport of TBP in soils or air is unknown. Aquatic studies indicate that TBP associates principally with sediments and is biodegradable in surface water with complete degradation of 1 mg/L occurring over two to thirteen days. Biodegradation involves incremental enzymatic hydrolysis to orthophosphate and n-butanol, with the alcohol undergoing further degradation. The biodegradation rate is

apparently dependent on the ratio of TBP to active biomass. The bioaccumulation potential for TBP appears to be low; bioconcentration factors measured for two species of fish ranged from 6 to 49.

There are no adequate data to assess the carcinogenicity of TBP, and the effects on reproduction have not been investigated. However, TBP is reported to be slightly teratogenic at high dose levels in experimental animals.

The noncarcinogenic effects of TBP in humans are primarily manifestations of its irritant properties. Acute exposure to TBP vapors can cause nausea, headache, and irritation of the eyes, nose, and throat. Contact with the liquid may irritate the skin. Ingestion of the liquid can result in pulmonary edema. TBP can be absorbed through the skin, resulting in systemic effects. In large doses, TBP also has a very weak cholinesterase inhibiting effect. Ingestion of doses greater than 100 mL (3.4 oz) might produce muscle weakness, salivation, and respiratory difficulties. Adverse effects associated with chronic exposures to low levels of TBP have not been reported in humans or animals.

With respect to its ecological toxicity, oral LD_{50} values for TBP in mice and rats range from 1 to 3 g/kg (0.016 to 0.48 oz/lb), indicating relatively low toxicity. It is moderately toxic to aquatic organisms, the 96-hour LC_{50} being 2.2 mg/L (ppm) for *Daphnia* and 4.2 to 11.8 mg/L (ppm) for fish (International Programme on Chemical Safety 1991). TBP is highly toxic to plants when applied directly to foliage and is used in desiccant defoliants: direct contact with the liquid increases the drying rate of plant leaves, resulting in rapid and complete inhibition of leaf respiration.

Although process knowledge indicates that TBP may have entered the solvent dike from the solvent storage terrace, it was not detected in soil samples collected within and downgradient of the former location of the solvent dike. The detection of TBP in well WNW8605 during the expanded rounds has not been related to a specific source.

5.2 Pathway Assessment

The primary contaminant transport pathway from the MSU is movement through shallow groundwater in the sand and gravel unit to surface streams. Another potential pathway includes overland transport to nearby streams. Atmospheric transport of particulates and gases are of limited concern under current conditions due to routine maintenance and the nature of the wastes.

The following summarizes aspects of these descriptions as they relate to pathways through which humans and environmental receptors may be exposed to contaminants in the MSU.

Beneath the MSU, groundwater flows northeastward through the sand and gravel to discharge at seepage points along the walls of Erdman Brook valley. Because Erdman Brook in this area is incised well into the Lavery till, seepage occurs well above the brook invert and well above the perennially wet bottomland along this watercourse. This relationship amounts to a gap in the groundwater-surface water pathway within which gap evaporation and uptake by plants should be expected to dramatically reduce the volume of groundwater that reaches Erdman Brook via this route.

Exposure to soil contaminants via dermal contact or inhalation is expected to be minimal since ground cover is maintained at the solvent dike, the effluent mixing basin is a lined impoundment, and the sludge ponds are comprehensively covered with dense, well established vegetation. Exposure is further minimized because

public access to the MSU is restricted. The transfer of contaminants to humans through crops or through livestock is not a viable exposure route under current land use conditions.

Volatilization and dispersion do not represent serious routes of exposure. The concentrations of the few compounds detected are low and the nature of the waste profile and the fact that the solvent dike is capped are not consistent with significant airborne emissions.

Other potential pathways between humans and contaminants originating at the MSU include consumption of agricultural products grown in areas impacted by the WNYNSC or game animals and fish that include the WNYNSC in their range. Water use patterns indicate that Cattaraugus Creek is not used for irrigation or as a primary watering source for livestock although Buttermilk Creek, near its confluence with Cattaraugus Creek is used to water livestock.

With respect to exposure to contaminants via game and fish, deer are the most plentiful game animals present on the WNYNSC. However, consumption of venison is not a route of exposure because hunting was not permitted on site land before 1994. During 1994, 1995, and 1996 controlled deer hunting was permitted on the WNYNSC. The WVDP routinely analyzes venison from the WNYNSC for concentrations of radioactivity as part of its environmental monitoring program. The concentration of radioactivity in deer has traditionally been at or below background concentrations. Ingestion of fish is a more probable exposure route to humans. However, fish typically caught for food (salmon, trout, walleye, and bass) are not plentiful in Cattaraugus Creek proximal to the WNYNSC, but rather are found predominantly in the lower reaches of Cattaraugus Creek near Lake Erie.

There are three human populations that represent potential receptors: 1) operator personnel working in the MSU; 2) other WVDP personnel; and 3) the general population surrounding the site. Since the MSU lies well within Project premises, public access to the MSU is restricted but all on-site personnel have access to the MSU.

Under routine operating conditions, the work performed at the MSU includes inspection and maintenance of the ground cover during seasons of active plant growth; operator personnel spend about 20 man-hours per month in the MSU. The most significant route of exposure for these individuals is inhalation. Assuming that ground cover is properly maintained, exposure via this route is anticipated to be negligible. At other times of the year, when activities at the MSU are limited to walk-through inspections and collection of groundwater samples on-site, personnel spend an estimated 4 man-hours per month in the MSU. However, based on the waste profile and results of groundwater monitoring, exposure via this route is expected to be minimal.

The remaining personnel at the WVDP have unlimited access to the MSU but daily work practices are such that only those individuals required to perform scheduled work in the MSU will enter this area. The MSU is 100 meters (328 ft) southeast of the process building; the closest building to the MSU is the warehouse which is west of and adjacent to the MSU; the warehouse is continuously occupied. Groundwater is not used at the plant for process or drinking water supplies.

The site boundary is at least 1,600 meters (1 mi) from the MSU and the nearest off-site residence is about 1,700 meters (1.1 mi) from the MSU. The closest point of public access to the site is Rock Springs Road, which traverses the WNYNSC to the west of the MSU. The population within 16 kilometers (10 mi) of the WNYNSC includes residents of both Cattaraugus and Erie counties. This information is further discussed in RFI Volume 1 (West Valley Nuclear Services Co., Inc. March 1995).

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6.0 Conclusions and Recommendations

The purpose of this RCRA facility investigation was to assess the nature and extent of releases of RCRA hazardous waste or hazardous constituents as defined in Section III of the Administrative Order on Consent [Docket No. II RCRA-3008(h)-92-0202], from the MSU. The facility investigation was performed in a phased approach. Results of previous investigations, ongoing environmental monitoring, and process knowledge provided the basis for the focused sampling performed for the RFI. The results of the RFI discussed herein support the information obtained in previous sampling activities summarized in section 2.0. The work summarized in this report was performed in accordance with the RFI Work Plan. The data presented in each section of this report were assessed to form the basis of the following conclusions and recommendations.

The majority of the waste managed in the MSU is reported to be inert and on-site generated solid waste, and there is no documented evidence that RCRA-hazardous waste or hazardous constituents were disposed of or used as part of unit operations in the MSU. The solvent dike was closed pursuant to Title 6 New York Codes, Rules, and Regulations (NYCRR), Part 360.7.6, the incinerator was sealed, and the sludge ponds are no longer used. Only the effluent mixing basin is currently being used.

A review of the groundwater data indicates that low levels of the hazardous constituent VOCs, toluene and xylene, have been detected in groundwater samples from monitoring well WNW0202 in the till-sand unit, cross-gradient from the component facilities of the MSU. These were detected below proposed Subpart S action levels and the results are suspect due to the low level and sporadic nature of the detections. No semivolatile RCRA-regulated hazardous constituents except phthalates, common laboratory contaminants, were detected in downgradient wells. Chromium and nickel were the only RCRA-hazardous constituent metals above proposed Subpart S action levels. Chromium results were within site background ranges. Based on nickel concentrations detected in background wells in 1995 and 1996 (Table 4-1), the levels detected in well WNW0203, above proposed Subpart S action levels, are also within site background ranges.

A review of the soils data indicates that several phthalates and PAHs were detected in samples but all were below the proposed Subpart S action levels. Several PAHs were detected above NYSDEC recommended cleanup objectives (TAGM 4046). These can reasonably be attributed to the presence nearby of asphalt-paved areas and the rail spur. With the exception of beryllium, all other RCRA constituent metals were detected at levels below proposed Subpart S action levels and it is believed that beryllium results are due to natural variation in the chemical make-up of the natural soils.

The primary migration pathway from the MSU is the sand and gravel unit within which groundwater migrates laterally to seepage zones on the edge of the north plateau. This pathway is topographically and hydraulically isolated from down-valley municipal water supplies. Groundwater from the MSU discharges on the western wall of Frank's Creek. This pathway is of little concern because the detected organics are noncarcinogenic and exhibit a low toxicity potential. These organics readily volatilize from waters and soil and do not bioaccumulate.

The results of this RFI indicate that the MSU does not pose a threat to human health or the environment. This is supported by data results that demonstrate that activities at this unit have not resulted in a release of RCRA hazardous constituents exceeding proposed Subpart S action levels. A potential future release is also not expected based on process knowledge and source sampling results. Some compounds were detected in soil and groundwater samples downgradient of the SSWMU; however, these detections were at low levels and/or were not directly attributable to the MSU. Based upon the RFI results, no further action under the Consent Order is deemed necessary for the MSU.

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Table 2-1

1988 EP-Toxicity Metals, pH, and Major Anion Concentrations from the North and South Demineralizer Sludge Pond

		EP-Toxicity Sample Extracts (mg/L)									Major Anions PPM (Wet Wt)					
Sample ID	Sample Date	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	pH	F	Cl	NO_2	NO_3	PO_4	SO_4
N-35-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.44	<2.0	46	<10	<10	<10	91.1
N-35-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.26	<2.0	216	<10	<10	<10	115.4
N-35-24-36	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.82	<2.0	262	<10	<10	<10	57.5
N-55A-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.24	<2.0	395	<10	<10	<10	67.6
N-55A-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.98	<2.0	37	<10	<10	<10	90.2
N-55A-24-36	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.86	<2.0	388	<10	<10	<10	65.8
N-55B-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.27	<2.0	88	<10	<10	<10	35.8
N-55B-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.99	<2.0	312	<10	<10	<10	75.6
N-55B-24-36	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.87	<2.0	244	<10	<10	<10	536.5
N-55C-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.25	<2.0	395	<10	<10	<10	109.3
N-55C-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.04	<2.0	56	<10	<10	<10	121.4
N-62-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.54	<2.0	59	<10	<10	<10	298.9
N-62-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.95	<2.0	290	<10	<10	<10	118.0
N-62-24-36	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.88	<2.0	177	<10	<10	<10	71.8
N-AVG 0-12"	CALCULATED	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.35	<2.0	197	<10	<10	<10	120.5
N-AVG 12-24"	CALCULATED	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.04	<2.0	182	<10	<10	<10	104.1
N-AVG 24-36"	CALCULATED	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.86	<2.0	268	<10	<10	<10	182.9

SOURCE: West Valley Nuclear Services Co., Inc. January 1996.
NOTE: 10 ppm NO_3 = 2.26 NO_3-N; 10 ppm NO_2 = 3.04 NO_2-N

N - Sample from North demineralizer sludge pond
S - Sample from South demineralizer sludge pond

Table 2-1 *(concluded)*

1988 EP-Toxicity Metals, pH, and Major Anion Concentrations from the North and South Demineralizer Sludge Pond

		EP-Toxicity Sample Extracts (mg/L)									Major Anions PPM (Wet Wt)					
Sample ID	Sample Date	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	pH	F	Cl	NO_2	NO_3	PO_4	SO_4
S-25-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.74	<2.0	<10	<10	<10	<10	80.1
S-25-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.72	<2.0	22	<10	<10	<10	84.8
S-29-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.67	<2.0	193	<10	12	<10	46.0
S-29-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.05	<2.0	88.9	<10	<10	<10	252.7
S-37-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.84	<2.0	<10	<10	<10	<10	137.4
S-37-12-24	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.88	<2.0	<10	<10	<10	<10	225.2
S-44-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.42	<2.0	240	<10	<10	<10	200.1
S-52-0-12	10JUN88	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	7.01	<2.0	42	<10	<10	<10	52.8
S-AVG 0-12	CALCULATED	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.73	<2.0	99	<10	<10	<10	103
S-AVG 12-24	CALCULATED	<0.5	<10	<0.1	<0.5	<0.5	<0.02	<0.1	<0.5	6.88	<2.0	40	<10	<10	<10	188

SOURCE: West Valley Nuclear Services Co., Inc. January 1996.
NOTE: 10 ppm NO_3 = 2.26 NO_3-N; 10 ppm NO_2 = 3.04 NO_2-N

N - Sample from North demineralizer sludge pond
S - Sample from South demineralizer sludge pond

Table 2-2

Metal Concentrations in Sludge Pond Sediment and Background Soil
November 16, 1988 (ppm)

Sample ID	As	Cr	Cu	Pb	Ni	Zn	Cd
N-55B-12-24	51.7	79.4	52.5	17.3	29.0	103.1	4.8
N-55C-12-24	26	86.2	55.5	17.1	28.3	110.5	4.9
S-29-12-24	22.9	77.9	71.6	19.6	33.5	211.4	4.8
S-37-0-12	27.6	103.9	45.7	14.2	23.0	94.2	4.3
Background Surface	10.5	31.4	10.4	13.9	22.4	71.6	1.2
Background 1 6" depth	9.8	22.5	9.7	14.2	34.4	77.6	1.4
Background 2 6" depth	11.1	18.7	7.2	12.7	10.0	53.5	0.7

SOURCE: West Valley Nuclear Services Co., Inc. January 22, 1996.

N - Sample from North demineralizer sludge pond
S - Sample from South demineralizer sludge pond

Table 2-3

1986 EP-Toxicity Metals Extract Concentrations for Solvent Dike Sediment (mg/L)

	FP1a	FP2a	FP3a	FP4a	MCL
Arsenic	<0.2	<0.2	<0.02	<0.2	5
Barium	0.2	0.2	0.2	0.2	100
Cadmium	<0.05	<0.05	<0.05	<0.05	1
Chromium	<0.05	<0.05	<0.05	<0.05	5
Lead	<0.1	<0.1	<0.1	<0.1	5
Mercury	<0.05	<0.05	<0.05	<0.05	0.2
Selenium	<0.05	<0.05	<0.05	<0.05	1
Silver	<0.05	<0.05	<0.05	<0.05	5

MCL - Maximum Contaminant Level

SOURCE: Englert, J.P. November 26, 1986.

Table 2-4

1990 Toxicity Characteristic Leachate Procedure Metals Extract Concentrations - Soils Near the Incinerator (mg/L)

Analyte	0- to 6-inch		6- to 18-inch
Arsenic	0.148	0.106	0.093
Barium	1.043	0.771	0.547
Cadmium	0.016	0.007	0.002U
Chromium	0.037	0.039	0.010U
Lead	0.040U	0.040U	0.040U
Selenium	0.080U	0.080U	0.080U
Silver	0.020	0.010U	0.010U
Mercury	0.0002U	0.0002U	0.001

U - Not detected

Table 2-5

Historical Routine Groundwater Sampling and Analysis Parameters

Contamination Indicator Parameters (Originally sampled eight times a year; currently sampled four times a year)	pH[1] Conductivity[1] Total Organic Carbon (TOC)[2] Total Organic Halogens (TOX) Gross Alpha Gross Beta Tritium Gamma Isotopic Scan Appendix IX Volatile Organic Analysis (VOAs)
Groundwater Quality Parameters (Analyzed twice a year)	Aluminum[3] Silica[3] Ammonia Sodium Bicarbonate/Carbonate Sulfate Calcium Sulfide[3] Chloride Iron Magnesium Manganese Nitrate+Nitrite-N Phenols Phosphate[3] Potassium
Expanded Characterization Parameters for Project Monitoring Locations Only (Completed 4th Quarter 1993 and 2nd Quarter 1994)	Schedule A (43 locations) Target Compound List (TCL) Radioisotopic Schedule B (6 locations) Modified Appendix IX[4] (40 CFR Part 264) Radioisotopic Schedule C (2 locations) Modified Appendix IX[4] Radioisotopic Tributyl phosphate (TBP) N-dodecane Schedule I (3 locations) Radioisotopic only

[1] Field measurement.
[2] Includes nonpurgeable organic carbon (NPOC) only.
[3] Analyses performed only once during 1993 because parameters were added to the schedule at mid-year.
[4] Does not include polychlorinated dibenzo-p-dioxins (PCDDs) or polychlorinated dibenzofurans (PCDFs).

Table 2-6

Volatile Detections at the Miscellaneous Small Units

WELL ID	PARAMETER	SAMP DATE	SAMPLE ID	RESULT	UNITS	QA FLAGS
WNW0201	acetone	11/25/91	91-11157	6.00	µg/L	J
WNW0202	acetone	11/25/91	91-11169	8.00	µg/L	J
WNW0202	acetone	08/31/92	92-09212	8.00	µg/L	J
WNW0202	acetone	10/12/92	92-10841	7.00	µg/L	J
WNW0202	acetone	10/12/92	92-10841	8.00	µg/L	J
WNW0202	acetone	12/07/92	92-13288	6.00	µg/L	J
WNW0202	acetone	06/02/93	93-05799	2.00	µg/L	J
WNW0202	toluene	11/25/91	91-11169	2.00	µg/L	J
WNW0202	toluene	11/25/91	91-11169	1.20	µg/L	J
WNW0202	toluene	07/20/92	92-06717	0.70	µg/L	J
WNW0202	toluene	07/20/92	92-06717	0.50	µg/L	J
WNW0202	toluene	08/31/92	92-09212	0.50	µg/L	J
WNW0202	toluene	08/31/92	92-09212	0.60	µg/L	J
WNW0202	toluene	10/12/92	92-10841	0.60	µg/L	J
WNW0202	toluene	10/12/92	92-10841	0.60	µg/L	J
WNW0202	toluene	11/09/92	92-11673	0.80	µg/L	J
WNW0202	toluene	11/09/92	92-11673	0.80	µg/L	J
WNW0202	toluene	12/07/92	92-13288	0.60	µg/L	J
WNW0202	toluene	12/07/92	92-13288	0.50	µg/L	J
WNW0202	toluene	02/25/93	93-01970	2.00	µg/L	J
WNW0202	toluene	02/25/93	93-01970	1.00	µg/L	J
WNW0202	toluene	06/02/93	93-05799	0.60	µg/L	J
WNW0202	toluene	06/02/93	93-05799	0.40	µg/L	J
WNW0202	xylene	07/20/92	92-06717	0.40	µg/L	J
WNW0202	xylene	07/20/92	92-06717	0.50	µg/L	J
WNW0202	xylene	11/09/92	92-11673	0.70	µg/L	J
WNW0202	xylene	11/09/92	92-11673	0.70	µg/L	J
WNW0202	xylne_mp*	11/25/91	91-11169	2.20	µg/L	J
WNW0202	xylne_mp*	11/25/91	91-11169	2.20	µg/L	J
WNW0205	toluene	08/31/92	92-09224	0.40	µg/L	J
WNW0205	toluene	08/31/92	92-09224	0.40	µg/L	J
WNW8605	pyridine	01/17/91	91-00529	51.00	µg/L	J
WNW8605	tcf_meth	01/17/91	91-00529	1.00	µg/L	J

* - mp = meta, para
J - estimated value

Table 3-1

1993 Soil and Sediment Sample Locations and Analysis at the Miscellaneous Small Units

Location/Borehole #	Borehole Depths	TCL VOCs	TCL SVOCs	TCL Metals	TCL Pesticides/ PCBs	n-dodecane/TBP
BH-11, surface	2 - 4 ft	1	-	1	-	1
BH-11, sat	12 - 14 ft	1	-	1	-	1
BH-12, surface	2 - 4 ft	-	-	1	-	-
BH-12, sat	06 - 08 ft	1	-	1	-	1
BH-15, surface	02 - 04 ft	-	-	1	-	-
BH-15, sat	12 - 14 ft	1	-	1	-	-
BH-16, surface	0 - 2 ft	-	-	1	-	-
BH-16, sat	4 - 6 ft	1	-	1	-	-
Bkgd., surface (BH-38)	0 - 02 ft	-	-	1	-	-
Bkgd., sat (BH-38)	12 - 14 ft 26 - 28 ft	3(2)	3(2)	3(2)	3(2)	-
SS-9	NA	-	1	1	-	-
ST-27	NA	-	-	1	-	-
ST-28	NA	-	-	1	-	-
ST-35	NA	1	1	1	1(0)	-
ST-36	NA	1	1	1	1(0)	-

1) Numbers in parentheses reflect changes made to the original program.

sat - Saturated Zone

SOURCE: RCRA Facility Investigation Work Plan (West Valley Nuclear Services Co., Inc. December 16, 1993).

Table 3-2

Specifications of Wells Monitoring the Miscellaneous Small Units (SSWMU #2)

Well ID	Well Position	Lithologic Unit Screened	Well Depth (ft)	Screen Length (ft)	Bladder Intake Depth (ft)	Well Construction
WNW0301	Background	Sand & Gravel	13.0	5.0	Bailer	SS
WNW0401	Background	Sand & Gravel	17.0	10.0	16.5	SS
WNW0706	Background	Sand & Gravel	11.0	5.0	Bailer	SS
WNW0302	Background	Till-sand	30.0	5.0	27.9	SS
WNW0402	Background	Till-sand	34.0	5.0	30.5	SS
WNW0404	Background	Till-sand	37.0	10.0	36.5	SS
WNW0201	Upgradient	Sand & Gravel	20.0	10.0	19.7	SS
WNW0202	Upgradient	Till-sand	38.5	5.0	37.3	SS
WNW0203	Downgradient	Sand & Gravel	18.0	10.0	17.3	SS
WNW0204	Upgradient	Till-sand	43.0	5.0	40.8	SS
WNW0205	Downgradient	Sand & Gravel	11.0	5.0	10.6	SS
WNW0206	Downgradient	Till-sand	37.8	5.0	37.0	SS
WNW0207	Downgradient	Sand & Gravel	11.0	5.0	Bailer	SS
WNW0208	Downgradient	Till-sand	23.0	5.0	22.2	SS
WNW8605	Downgradient	Sand & Gravel	12.0	5.0	9.5	PVC
WNW8606	Downgradient	Sand & Gravel	12.1	5.0	9.8	PVC

SS - Stainless Steel PVC - Polyvinyl Chloride

Table 4-1

Total Nickel Concentrations in Sand and Gravel Unit
Background Wells in 1995-1996
(μg/L)

Well	6/95	9/95	12/95	3/96
WNW0301	366	311	200	91
WNW0401	498	512	617	351
WNW0706	<10	<30	38.9	20.3

Table 4-2

Target Analyte List Metals Concentrations in Surface Soil Samples at the Miscellaneous Small Units (mg/kg)

Analyte	SS-09 (Incinerator Composite)	Proposed Subpart S Action Level[1]	TAGM 4046[2]	Benchmark[3]	Eastern USA Background [5]
Aluminum	8,550.00 J	-	SB	41,100.00	33,000.00
Antimony	3.27 J	30.00	SB	*[4]	NA
Arsenic	12.80	80.00	7.50 or SB	7.32 J	3.00 - 12.00
Barium	51.30	4,000.00	300.00 or SB	186.60	15.00 - 600.00
Beryllium	0.33	0.20	0.16 or SB	1.35	0.00 - 1.75
Cadmium	0.79	40.00	1.00 or SB	*	0.10 - 1.00
Calcium	45,600.00 J	-	SB	4,890.00	130.00 - 35,000.00
Chromium	32.00	400.00	10.00 or SB	50.40	1.50 - 40.00
Cobalt	5.47	-	30.00 or SB	42.00	2.50 - 60.00
Copper	38.70 J	-	25.00 or SB	17.16	1.00 - 50.00
Iron	16,100.00 J	-	2,000.00 or SB	63,600.00	2,000.00 - 550,000.00
Lead	46.30	-	SB	81.90	4.00 - 61.00 (rural) 200.00 - 500.00 (suburban)
Magnesium	28,800.00 J	-	SB	8,280.00	100.00 - 5,000.00
Manganese	626.00 J	-	SB	1,845.00 J	50.00 - 5,000.00
Mercury	0.21	20.00	0.10	0.21	0.001 - 0.20
Nickel	31.10	2,000.00	13.00 or SB	42.90	0.50 - 25.00
Potassium	1,250.00	-	SB	4,620.00	8,500.00 - 43,000.00
Selenium	<0.12 UJ	-	2.00 or SB	0.42 J	0.10 - 3.90
Silver	0.68	200.00	SB	*	NA
Sodium	159.00	-	SB	133.20	6,000.00 - 8,000.00
Thallium	<0.12	-	SB	*	NA
Vanadium	11.00	-	150.00 or SB	73.50	1.00 - 300.00
Zinc	158.00 J	-	20.00 or SB	186.00	9.00 - 50.00

[1] These action levels are taken from proposed 40 CFR 264, Subpart S.
[2] These values are based on the recommended soil cleanup objective from Table 4 of Appendix A of the NYSDEC TAGM 4046.
[3] Due to natural variability in concentrations, levels are not considered to exceed background unless 3x > highest background value.
[4] * - Not applicable because site background value is a nondetect.
[5] Eastern USA Background values taken from TAGM 4046, Table 4 of Appendix A.

NA - Not analyzed J - Estimated value < - Not Detected UJ - Not detected, estimated detection limit SB - Site background

Table 4-3

Target Analyte List Metals Concentrations in Borehole Samples at the Miscellaneous Small Units (mg/kg)

Analyte	BH-11 Range	BH-12 Range	BH-15 Range	BH-16 Range	BH-17 Range	Proposed Subpart S Action Level[1]	TAGM 4046[2]	Benchmark[3]	Eastern USA Background[5]
Aluminum	8,340 - 11,800	8,850 - 11,200	10,800 - 13,600	10,800 J - 14,000 J	13,200	-	SB	41,700	33,000
Antimony	2.62 J - 4.55 J	3.75 J - 3.92 J	<1.42 UJ - 1.66 J	1.56 J - 2.15 J	<1.32 UJ	30	SB	7.62	NA
Arsenic	17.50 - 23.40	18.20 - 20.30	5.93 - 6.79 J	4.51 J - 9.14 J	5.64 J	80	7.5 or SB	18.18	3 - 12
Barium	57.50 - 69.30	64.80 - 72.70	51.60 - 88.50	61.30 - 93.70	124.00	4,000	300 or SB	417	15 - 600
Beryllium	0.42 - 0.43	0.38 - 0.45	0.48 - 0.64	0.48 - 0.49	0.65	0.2	0.16 or SB	1.98	0 - 1.75
Cadmium	<0.23 - <0.24	< 0.23	<0.23 - <0.40	<0.23 - <0.26	0.24	40	1.0 or SB	*[4]	0.1 - 1
Calcium	1,490 - 2,360	1,690 - 2,460	986.00 J - 31,100 J	1,060 J - 1,470 J	2,600 J	-	SB	88,200	130 - 35,000
Chromium	10.50 - 12.40	10.30 - 12.90	13.50 - 18.40	13.10 - 14.30	17.90 J	400	10 or SB	53.70	1.5 - 40
Cobalt	7.70 - 8.20	6.70 - 7.70	7.80 - 11.40	7.59 - 8.63	11.60	-	30 or SB	34.50	2.5 - 60
Copper	17.00 - 21.40	15.70 - 18.90	21.90 - 30.80 J	14.60 - 25.70	24.70 J	-	25 or SB	74.40	1 - 50
Iron	20,200 J - 21,500 J	19,000 - 20,200	24,000 - 26,900	25,200 J - 25,800 J	27,100 J	-	2,000 or SB	80,400	2,000 - 550,000
Lead	19.80 - 25.70	13.30 - 27.20	15.20 - 19.20	18.00 - 19.60	18.50	-	SB	42.60	4 - 61 (rural) 200 - 500 (suburban)
Magnesium	2,930 - 3,200	2,870 - 3,110	3,330 J - 10,600 J	2,670 J - 3,180 J	4,820	-	SB	32,400	100 - 5,000
Manganese	288.00 - 720.00	324.00- 369.00	362.00 - 461.00 J	373.00 J - 662.00 J	512.00	-	SB	1,458	50 - 5,000
Mercury	0.03 - 0.12	0.02 - 0.04	0.03 - 0.04	0.03 - 0.05	0.03	20	0.1	0.06	0.001 - 0.2
Nickel	17.50 - 17.60	16.20 - 17.50	22.00 - 30.10	16.50 - 19.50	31.30	2,000	13 or SB	81.90	0.5 - 25
Potassium	960.00 - 1,020	558.00 - 1060	1,240 - 2,610	1,160 - 1,210	1,960	-	SB	8,940	8,500 - 43,000
Selenium	<0.23 UJ - <0.24 UJ	<0.11 - <0.12	< 0.12	<0.11 - <0.13	<0.25 UJ	-	2 or SB	*	0.1 - 3.9
Silver	<0.35 - <0.36	<0.34 - <0.35	<0.35 - <0.36	<0.34 - <0.39	<0.33 UJ	200	SB	*	NA
Sodium	93.10 - 151.00	69.70 - 114.00	266.00 - 549.00	63.30 - 74.60	90.00	-	SB	408	6,000 - 8,000
Thallium	<0.57 - <0.60	<0.54 - <0.59	<0.24 UJ - <0.58 UJ	<0.56 UJ - <0.63 UJ	<0.54 UJ	-	SB	*	NA
Vanadium	10.30 - 15.20	10.50 - 15.90	12.90 - 19.70	13.40 - 21.40	18.10	-	150 or SB	63.90	1 - 300
Zinc	74.20 J - 77.70 J	59.20 - 81.70	64.00 J - 71.90 J	67.40 - 71.40	76.50 J	-	20 or SB	240	9 - 50

[1] These action levels are taken from proposed 40 CFR 264, Subpart S.
[2] These values are based on the recommended soil cleanup objective from Table 4 of Appendix A of the NYSDEC TAGM 4046.
[3] Due to natural variability in concentrations, levels are not considered to exceed background unless 3x > highest background value.
[4] * - Not applicable because site background value is a nondetect.
[5] Eastern USA Background values taken from TAGM 4046, Table 4 of Appendix A.

< - Not Detected J - Estimated value NA - Not analyzed UJ - Not detected, estimated detection limit SB - Site background

Table 4-4

Radioisotopes Exceeding Background Concentrations at Borehole Sampling Locations at the Miscellaneous Small Units

LOCATION	DEPTH	ISOTOPE	RESULTS	RAD UNCERTAINTY	SCREENING VALUE	UNITS
BH-11	(08-10')	am241__r	1.10E-07	4.00E-08	2E-08 (1)	uCi/g
BH-11	(10-12')	am241__r	6.10E-08	3.10E-08		uCi/g
BH-11	(02-04')	co60__r	5.60E-07	8.00E-08	3E-08 (1)	uCi/g
BH-11	(02-04')	cs137__r	1.80E-04	2.00E-05	2.5E-07 (1)	uCi/g
BH-16	(00-02')	cs137__r	4.50E-06	5.00E-07		uCi/g
BH-12	(02-04')	cs137__r	4.40E-06	4.00E-07		uCi/g
BH-11	(08-10')	cs137__r	7.20E-07	7.00E-08		uCi/g
BH-12	(06-08')	cs137__r	4.80E-07	5.00E-08		uCi/g
BH-11	(12-14')	cs137__r	4.60E-07	5.00E-08		uCi/g
BH-11	(00-02')	eu154__r	3.80E-07	1.30E-07	5.5E-08 (2)	uCi/g
BH-11	(08-10')	gr_bt__r	3.00E-04	1.00E-05	5E-05 (1)	uCi/g
BH-11	(10-12')	gr_bt__r	2.40E-04	1.00E-05		uCi/g
BH-12	(06-08')	gr_bt__r	1.60E-04	1.00E-05		uCi/g
BH-11	(02-04')	gr_bt__r	1.30E-04	1.00E-05		uCi/g
BH-11	(12-14')	gr_bt__r	6.60E-05	4.00E-06		uCi/g
BH-12	(02-04')	gr_bt__r	5.50E-05	4.00E-06		uCi/g
BH-11	(08-10')	pu239__r	7.50E-08	2.50E-08	4E-08 (1)	uCi/g
BH-11	(10-12')	sr90__r	5.60E-05	1.00E-06	2.5E-07 (1)	uCi/g
BH-11	(08-10')	sr90__r	5.60E-05	1.00E-06		uCi/g
BH-12	(06-08')	sr90__r	4.00E-05	1.00E-06		uCi/g
BH-11	(02-04')	sr90__r	1.20E-05	1.00E-06		uCi/g
BH-11	(12-14')	sr90__r	7.60E-06	2.00E-07		uCi/g
BH-12	(02-04')	sr90__r	2.30E-06	2.00E-07		uCi/g
BH-16	(00-02')	sr90__r	1.30E-06	1.00E-07		uCi/g
BH-11	(08-10')	u233_34r	3.60E-06	2.00E-07	1.5E-07 (1)	uCi/g
BH-11	(10-12')	u233_34r	1.90E-06	1.00E-07		uCi/g
BH-12	(06-08')	u233_34r	1.80E-06	2.00E-07		uCi/g
BH-11	(12-14')	u233_34r	2.90E-07	5.00E-08		uCi/g
BH-11	(08-10')	u235__r	1.10E-07	2.00E-08	1.1E-08 (2)	uCi/g
BH-12	(06-08')	u235__r	8.60E-08	2.60E-08		uCi/g
BH-11	(10-12')	u235__r	6.90E-08	1.90E-08		uCi/g
BH-11	(08-10')	u236__r	4.20E-07	5.00E-08	4.2E-10 (2)	uCi/g

(1) Screening Values from Table 4-2 from the Soils Characterization Environmental Information Document, WVDP-EIS-008.
(2) From Background location BH-38

Table 4-4 (*concluded*)

Radioisotopes Exceeding Background Concentrations at Borehole Sampling Locations at the Miscellaneous Small Units

LOCATION	DEPTH	ISOTOPE	RESULTS	RAD UNCERTAINTY	SCREENING VALUE	UNITS
BH-11	(10-12')	u236__r	2.20E-07	4.00E-08		uCi/g
BH-12	(06-08')	u236__r	1.80E-07	4.00E-08		uCi/g
BH-11	(12-14')	u236__r	1.10E-08	1.00E-08		uCi/g
BH-11	(08-10')	u238__r	2.20E-06	2.00E-07	1.5E-07 (1)	uCi/g
BH-11	(10-12')	u238__r	1.20E-06	1.00E-07		uCi/g
BH-12	(06-08')	u238__r	1.20E-06	1.00E-07		uCi/g
BH-11	(12-14')	u238__r	2.20E-07	4.00E-08		uCi/g

(1) Screening Values from Table 4-2 from the Soils Characterization Environmental Information Document, WVDP-EIS-008.
(2) From Background location BH-38

Table 4-5

Target Analyte List Metals Concentrations in Stream Sediment Samples at the Miscellaneous Small Units (mg/kg)

Analyte	ST-20	ST-21	ST-27	ST-28	ST-35	ST-36	Proposed Subpart S Action Level[1]	TAGM 4046[2]	Benchmark[3]	Eastern USA Background[5]
Aluminum	12,800 J	13,300 J	49,600.00	21,600.00	1,730.00	18,800	-	SB	34,800.00	33,000
Antimony	4.22	<2.27	<3.46	<3.10	<3.35	<2.24	30	SB	*[4]	NA
Arsenic	19.30	4.53	17.00 R	15.40 R	2.23 R	9.07 R	80	7.5 or SB	46.50 R	3-12
Barium	83.10	90.40	121.00	93.30	28.10	87.30	4,000	300 or SB	216.30	15-600
Beryllium	0.60	0.63	0.98	1.01	<0.28	0.44	0.2	0.16 or SB	1.74	0-1.75
Cadmium	<0.31	<0.38	1.85	<0.58	<0.56	0.43	40	1.0 or SB	*	0.1-1.0
Calcium	8,500 J	6370 J	7230.00 J	3,430.00 J	5,090.00 J	7,270.00 J	-	SB	6,630.00 J	130-35,000
Chromium	17.90	19.50	26.70	18.90	6.71	32.00	400	10 or SB	46.80	1.5-40
Cobalt	10.80	11.00	15.90	9.51	1.70	8.92	-	30 or SB	21.20	2.5-60
Copper	16.40	19.80	38.80	29.00	5.19	32.70	-	25 or SB	42.90	1-50
Iron	22,200 J	20,200 J	36,000 J	24,500 J	3,130 J	21,300 J	-	2,000 or SB	57,900 J	2,000-550,000
Lead	14.60	13.50	22.70	22.80	5.29	62.30	-	SB	66.60	4-500
Magnesium	6,050 J	6,130 J	5,990.00 J	3,860.00 J	1,360.00 J	3,980.00 J	-	SB	8,790.00 J	100-5,000
Manganese	705.00 J	419.00 J	1,220.00 J	2,260.00 J	746.00 J	851.00 J	-	SB	1,179.00 J	50-5,000
Mercury	<0.12	<0.15	<0.22	<0.18	<0.22	5.37	20	0.1	*	0.001-0.2
Nickel	22.40	25.40	35.80	26.20	3.19	20.00	2,000	13 or SB	54.00	0.5-25
Potassium	2,230	2,300	2,780.00	2,760.00	401.00	1,570.00	-	SB	5,100.00	8,500-43,000
Selenium	<0.15	0.49	<0.30	0.64	<0.28	0.38	-	2 or SB	*	0.1-3.9
Silver	<0.46	<0.57	<0.86 UJ	<0.78 UJ	<0.84 UJ	<0.56 UJ	200	SB	*	NA
Sodium	242.00 J	116.00 J	1,280 J	89.80	1,950.00 J	232.00 J	-	SB	447.00 J	6,000-8,000
Thallium	<0.15	<0.19	<0.30	<0.25	<0.28	<0.19	-	SB	*	NA
Vanadium	20.90	21.20	27.10	16.80	2.29	17.40	-	150 or SB	54.30	1-300
Zinc	69.20 J	81.60 J	235.00 J	102.00 J	14.70 J	900.00 J	-	20 or SB	1035.00 J	9-50

[1] These action levels are taken from proposed 40 CFR 264, Subpart S.
[2] These values are based on the recommended soil cleanup objective from Table 4 of Appendix A of the NYSDEC TAGM 4046.
[3] Due to natural variability in concentrations, levels are not considered to exceed background unless 3x highest background value.
[4] * - Not applicable because site background value is a nondetect.
[5] Eastern USA Background values taken from TAGM 4046, Table 4 of Appendix A.

NA - Not analyzed J - Estimated value UJ - Not detected, estimated detection limit R - Unreliable < - Not Detected SB - Site background

Table 4-6

Completeness of Analytical Results from the 1993 Soils Sampling Program

	Radiometric Results			
	Borehole	Surface Soil	Stream Sediment	TOTALS
Activity	100.0%	100.0%	100.0%	100.0%
	Nonradiometric Results			
	Borehole	Surface Soil	Stream Sediment	TOTALS
TCL Volatiles	98.9%	95.6%	94.8%	98.2%
TCL Pesticides/PCBs	100.0%	100.0%	100.0%	100.0%
TAL Metals	99.2%	99.4%	99.2%	99.2%
TCL Semivolatiles	100.0%	99.6%	100.0%	99.9%
TOTALS	99.3%	99.0%	98.0%	99.2%

TCL - Target Compound List
TAL - Target Analyte List

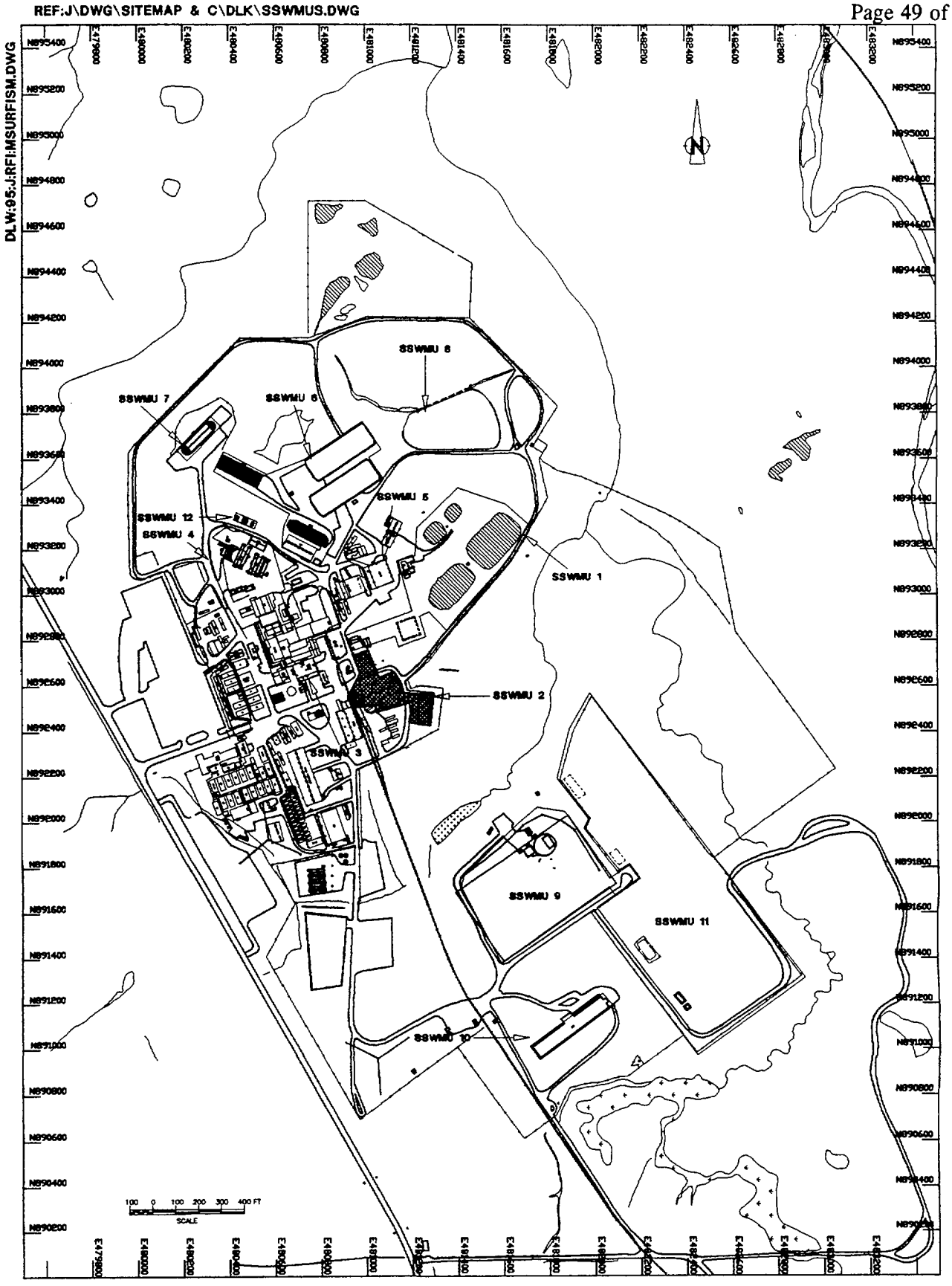


Figure 1-1. MSU (SSWMU #2) Location Map

DLW:9ERFI:MSURCRA.DWG

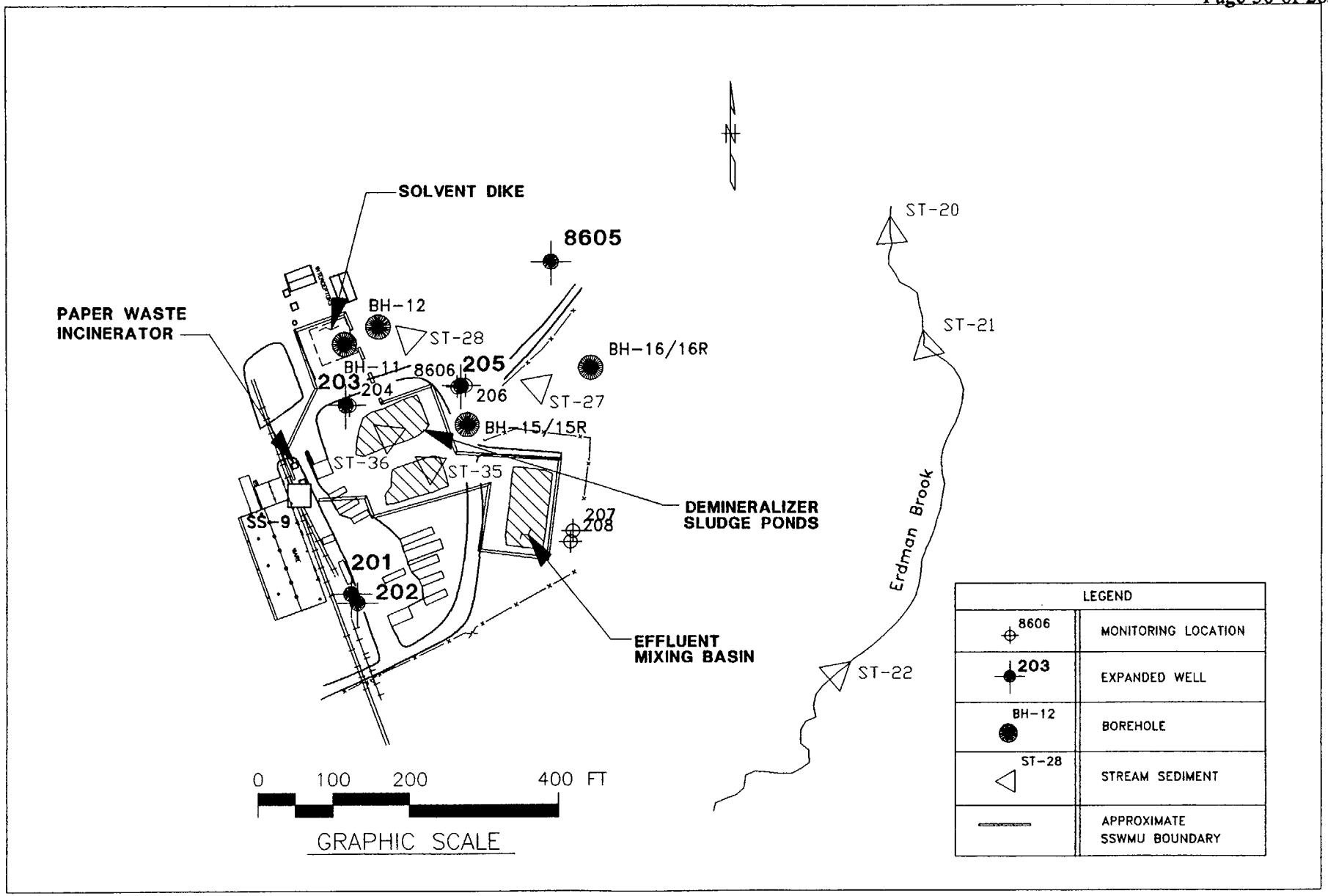


Figure 2-1. MSU (SSWMU #2) Sample Locations for the RCRA Facility Investigation

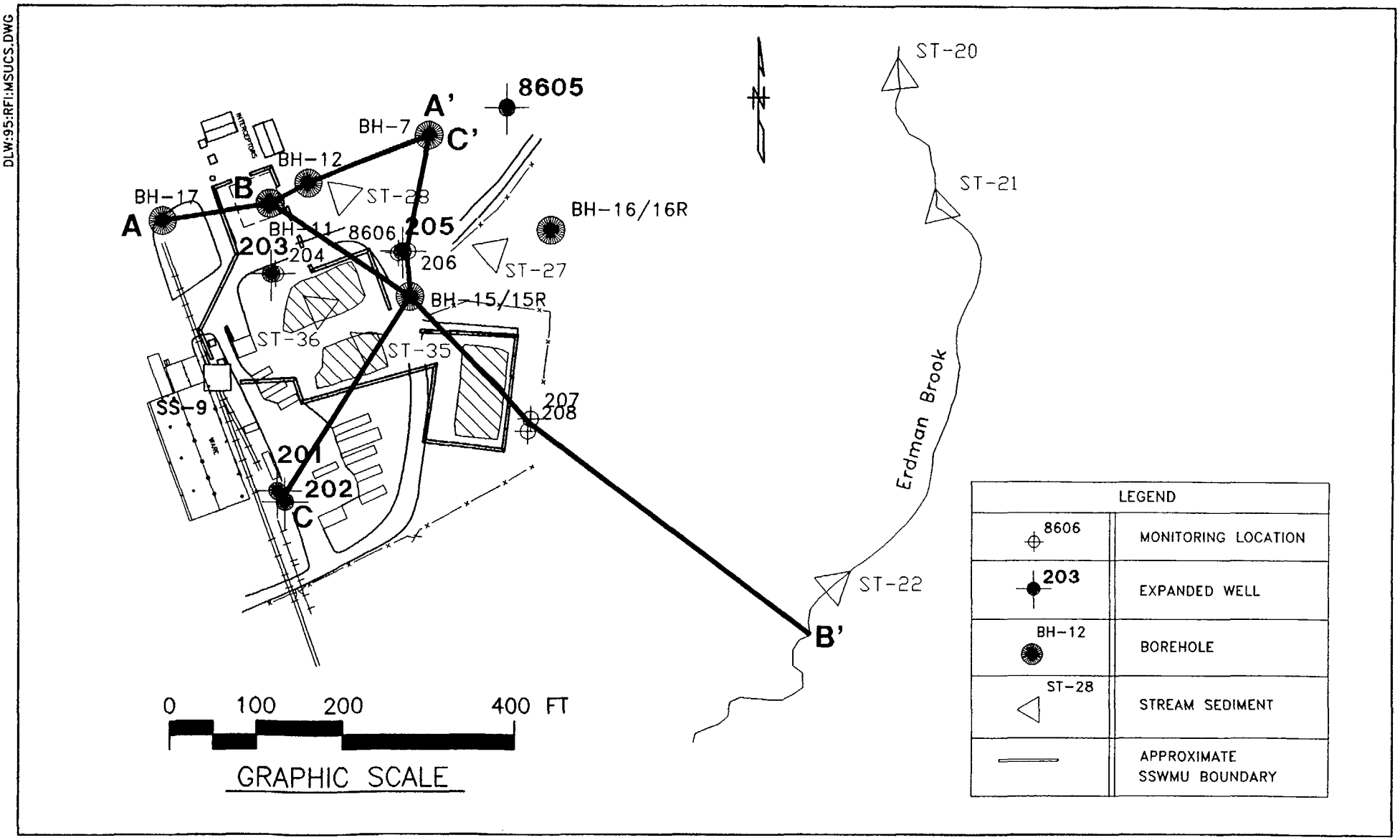


Figure 2-2. Site Plan showing Cross Sections through the MSU

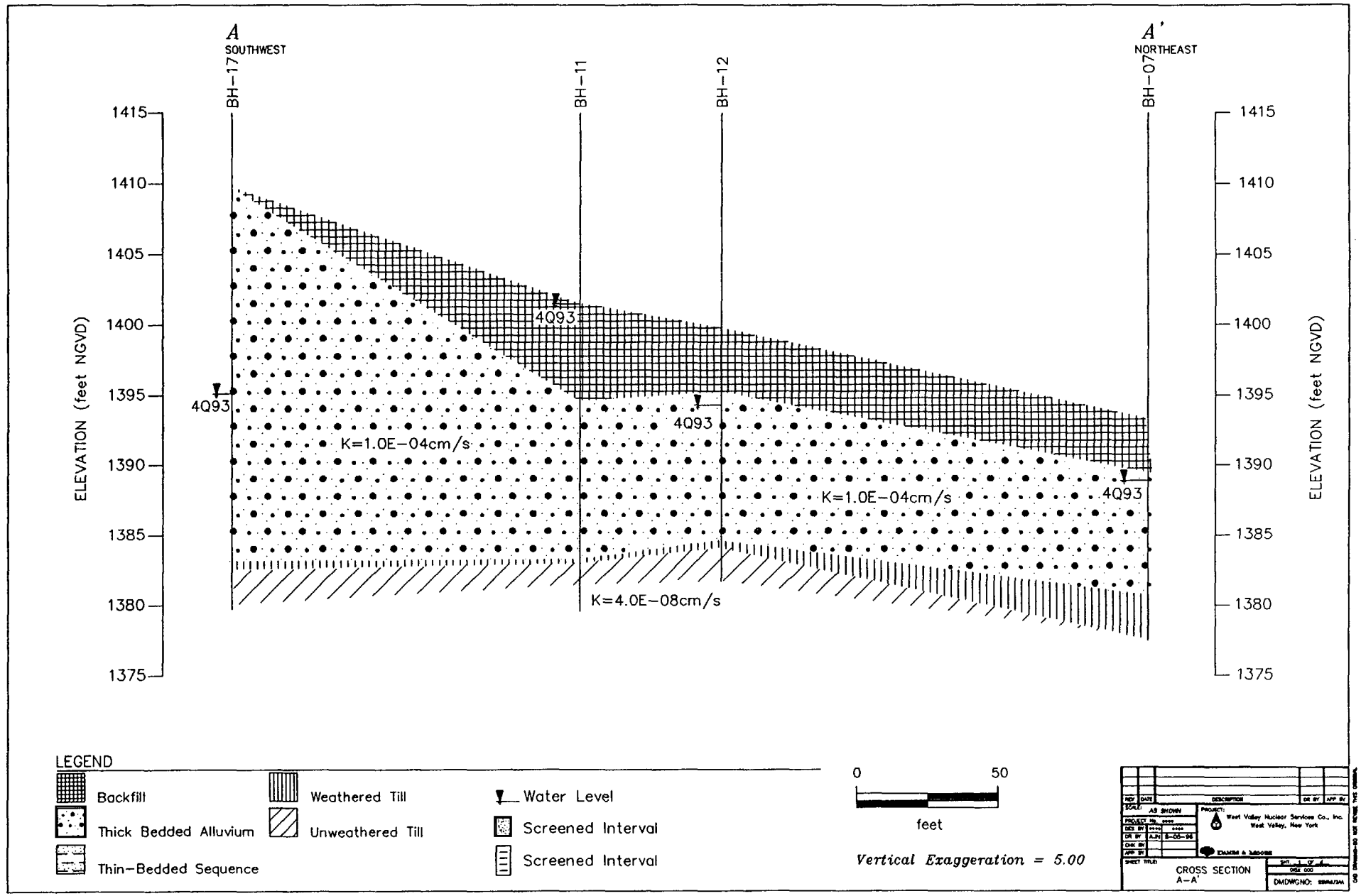


Figure 2-3. Cross Section A-A'

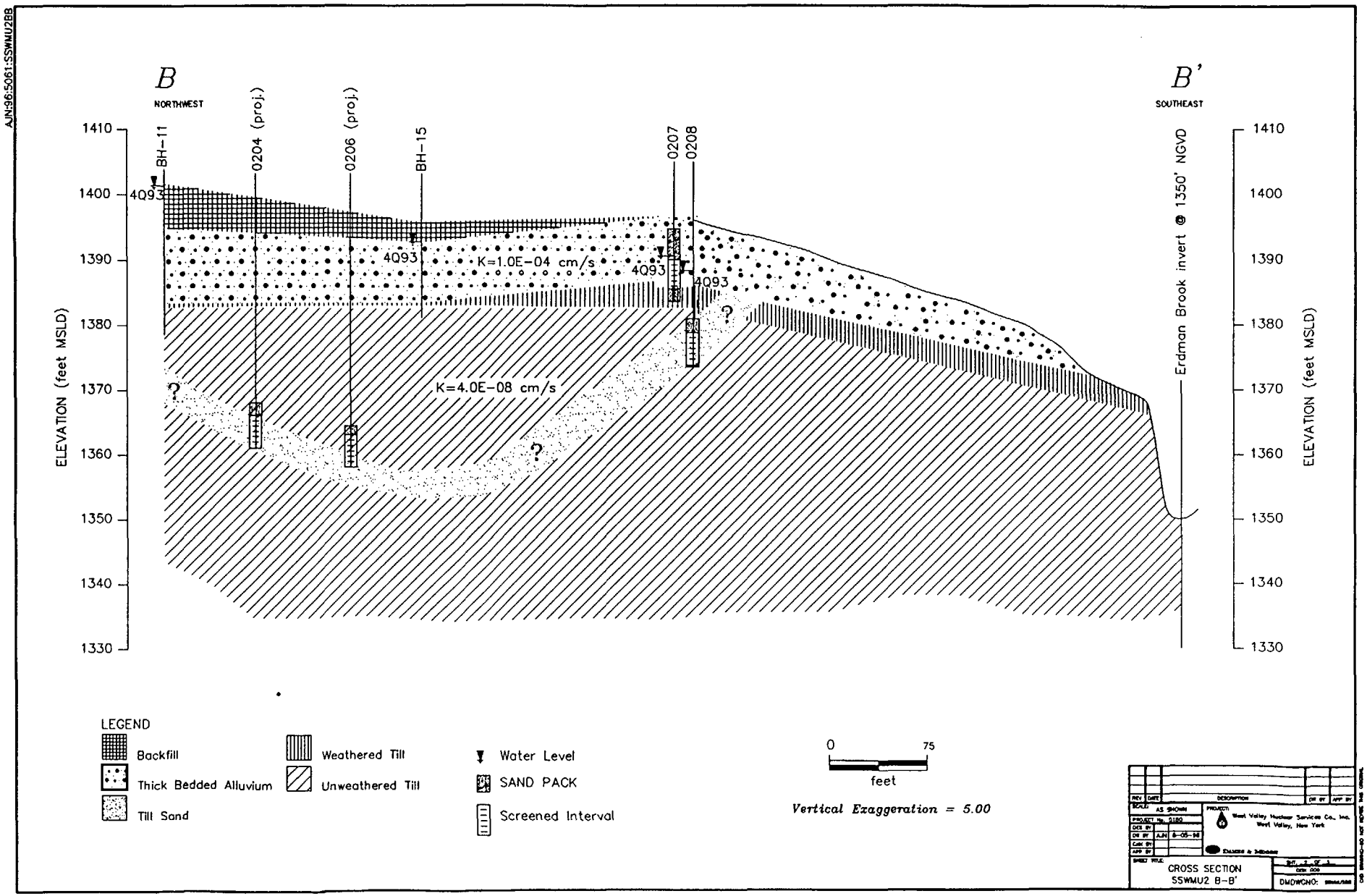


Figure 2-4. Cross Section B-B'

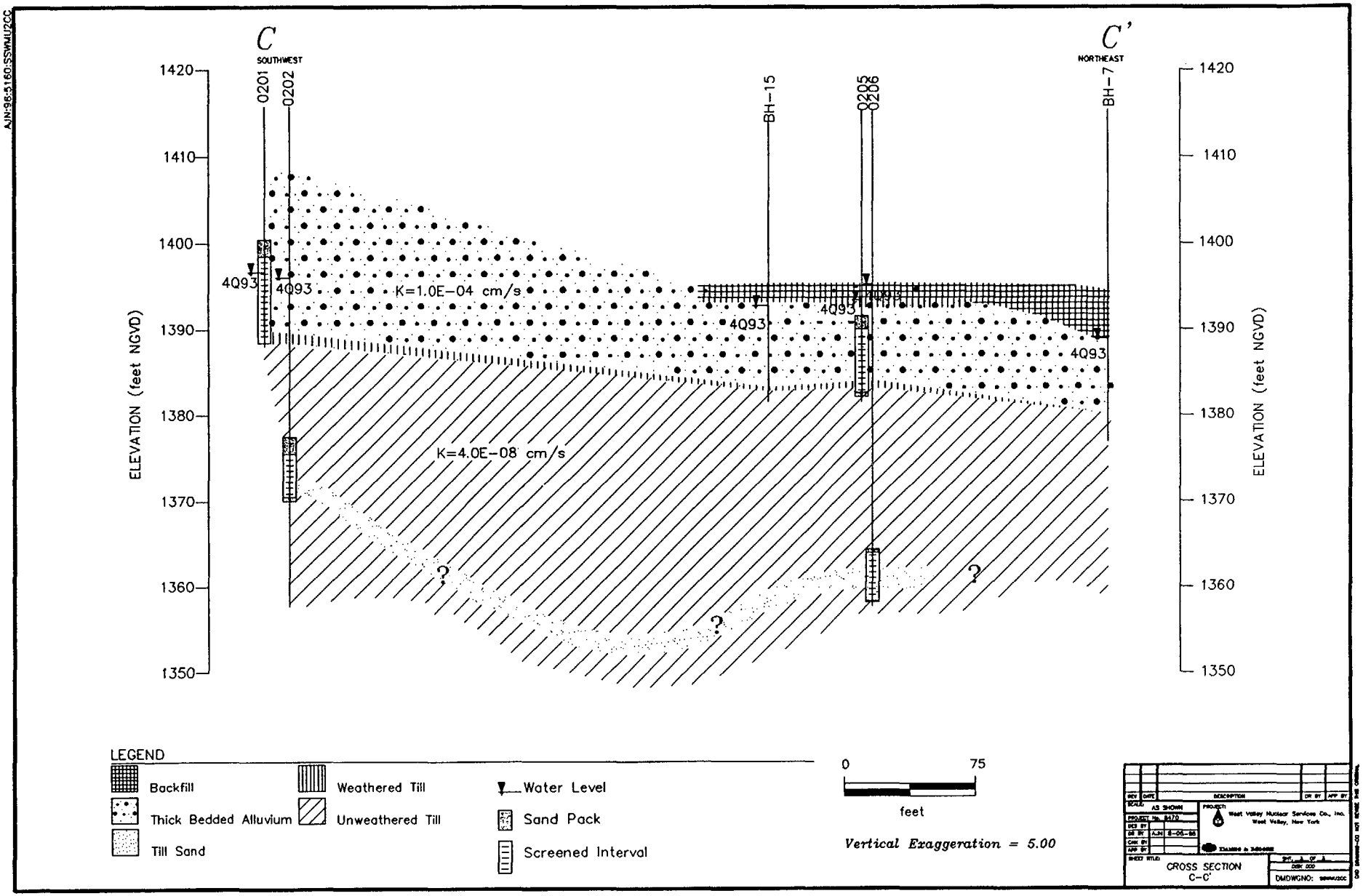


Figure 2-5. Cross Section C-C'

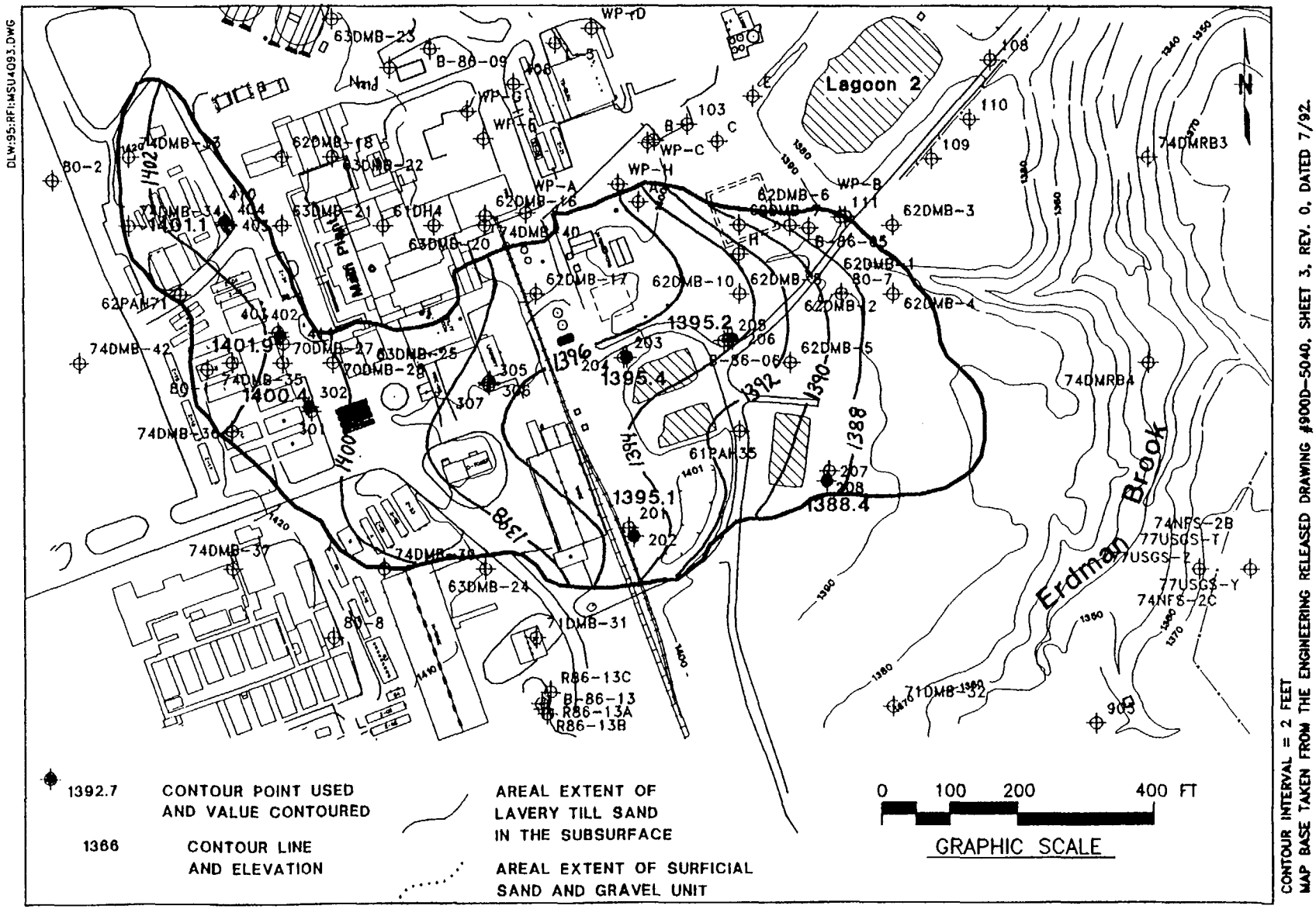
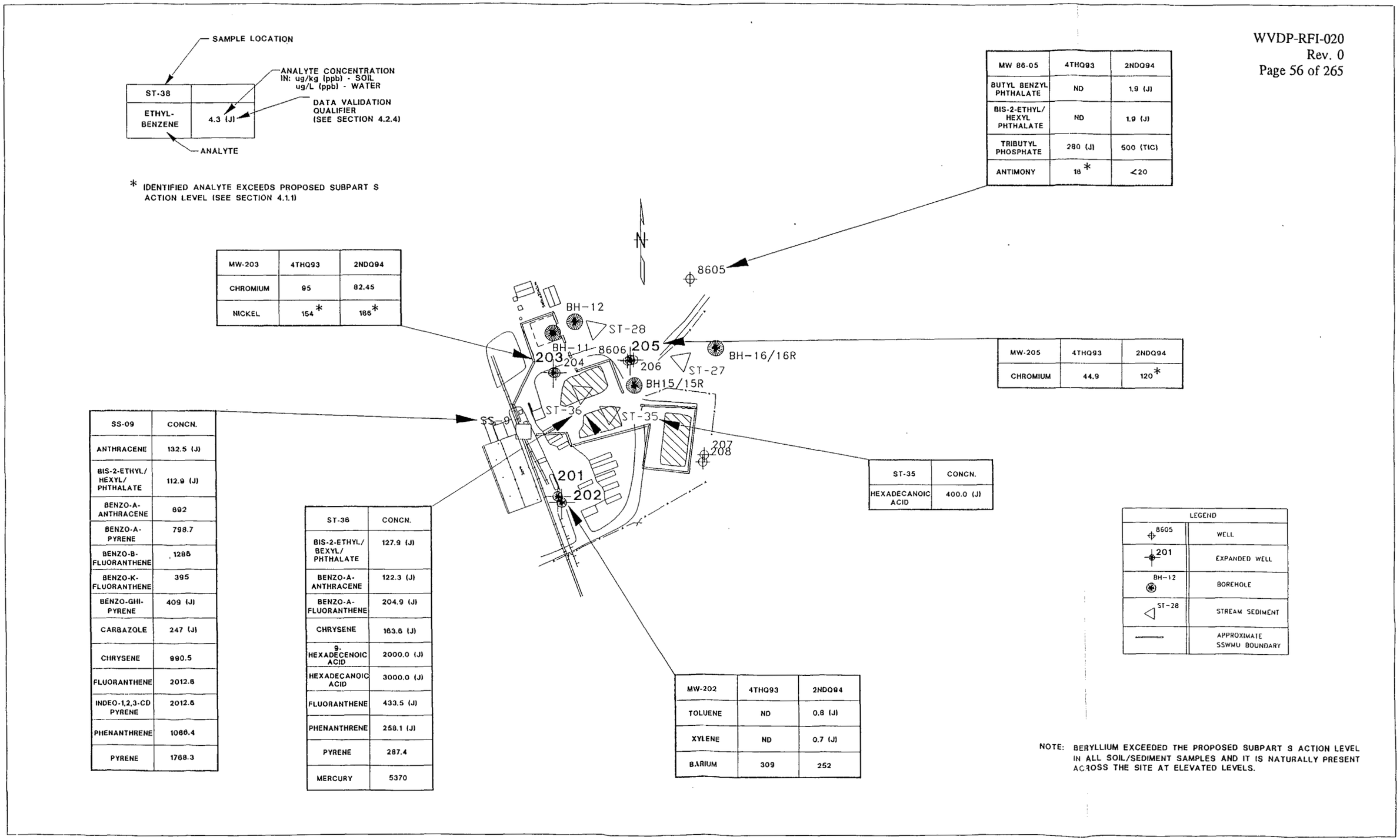


Figure 2-6. Lavery Till-Sand Unit Water Table Map for the 4th Quarter 1993

A:JN:96:RFI:MSUID2.DWG



MW 86-05	4THQ93	2NDQ94
BUTYL BENZYL PHTHALATE	ND	1.9 (J)
BIS-2-ETHYL/ HEXYL PHTHALATE	ND	1.9 (J)
TRIBUTYL PHOSPHATE	280 (J)	500 (TIC)
ANTIMONY	18 *	<20

MW-203	4THQ93	2NDQ94
CHROMIUM	95	82.45
NICKEL	154 *	186 *

MW-205	4THQ93	2NDQ94
CHROMIUM	44.9	120 *

SS-09	CONCN.
ANTHRACENE	132.5 (J)
BIS-2-ETHYL/ HEXYL/ PHTHALATE	112.9 (J)
BENZO-A-ANTHRACENE	892
BENZO-A-PYRENE	798.7
BENZO-B-FLUORANTHENE	1288
BENZO-K-FLUORANTHENE	395
BENZO-GHI-PYRENE	409 (J)
CARBAZOLE	247 (J)
CHRYSENE	990.5
FLUORANTHENE	2012.6
INDEO-1,2,3-CD PYRENE	2012.6
PHENANTHRENE	1066.4
PYRENE	1768.3

ST-38	CONCN.
BIS-2-ETHYL/ BEXYL/ PHTHALATE	127.9 (J)
BENZO-A-ANTHRACENE	122.3 (J)
BENZO-A-FLUORANTHENE	204.9 (J)
CHRYSENE	163.6 (J)
9-HEXADECENOIC ACID	2000.0 (J)
HEXADECANOIC ACID	3000.0 (J)
FLUORANTHENE	433.5 (J)
PHENANTHRENE	258.1 (J)
PYRENE	287.4
MERCURY	5370

ST-35	CONCN.
HEXADECANOIC ACID	400.0 (J)

MW-202	4THQ93	2NDQ94
TOLUENE	ND	0.8 (J)
XYLENE	ND	0.7 (J)
BARIUM	309	252

NOTE: BERYLLIUM EXCEEDED THE PROPOSED SUBPART S ACTION LEVEL IN ALL SOIL/SEDIMENT SAMPLES AND IT IS NATURALLY PRESENT ACROSS THE SITE AT ELEVATED LEVELS.

Figure 2-7. MSU RCRA Facility Investigation (RFI) Sampling Locations and Analytical Results Summary

Appendix A

Soil Program Borehole Logs

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MAJOR DIVISIONS			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

FORM NO. 467.3 (4-78)

Dames & Moore

SHEET 1 OF: 2 DATE STARTED: 11/17/93 DATE FINISHED: 11/17/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH- SURFACE ELEVATION (FT.): 1401.60 .1 NORTHING: 892718 EASTING: 481010
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: SOLVENT DIKE SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 12-18	BLOWS ON SAMPLER 6-12 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/14	SS-1	10 12	16 11		Brown mottled orange pebbly clayey SILT, with masses gray pebbly silty CLAY; moist, very stiff. (ML/CL) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:BB)
	24/13	SS-2	12 13	13 25		Brown and gray silty GRAVEL, locally clayey; moist, locally saturated, medium dense. (GM) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:300cpm AB)
5	24/17	SS-3	10 23	27 23		Brown red very pebbly clayey SILT and silty CLAY; damp, hard. (ML/CL) (OVA:3ppm, beta/gamma:100cpm AB) As above. (0.2') Gray coarse SAND and fine GRAVEL, slightly silty; saturated, loose. (0.7') (SP/GM)
	24/16	SS-4	10 34	18 25		Gray brown grit and pebble-cobble GRAVEL; saturated, dense. (0.4') (Hnu:<0.5ppm, OVA:3ppm, Beta/gamma:50cpm AB) (GM)
	24/19	SS-5	17 25	25 18		Brown pebble-cobble GRAVEL, saturated; medium dense. (0.6') (GM) Brown sandy pebble-cobble GRAVEL; saturated. (0.8') (GM) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:150 cpm AB)
10	24/16	SS-6	8 22	12 23		Brown silty coarse SAND and pebble-cobble GRAVEL; saturated, dense. (GM) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:100cpm AB)
	24/17	SS-7	8 21	17 20		Brown coarse SAND and pebble GRAVEL; humic, slightly silty and clayey; saturated, dense. (GM) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:BB)
15	24/19	SS-8	18 38	27 31		Brown and gray grit and pebble-cobble GRAVEL, slightly silty and sandy; saturated, very dense. (GM) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:BB)
	24/11	SS-9	9 32	23 40		Brown coarse SAND and pebble-cobble GRAVEL, with matrix of clayey silt and lenses of fine SAND; saturated, very dense. (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:BB) (SP/GM)
	24/18	SS-10	13 35	22 54		Brown pebbly silty CLAY; damp to moist. (0.2') (CL) Gray pebbly silty CLAY; damp, hard. (1.3') (CL) (Hnu:<0.5ppm, OVA:3ppm, beta/gamma:BB)

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMME
3" O.D. SPLITSPOON SAMPLER

SHEET 2 OF: 2 DATE STARTED: 11/17/93 DATE FINISHED: 11/17/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-11 SURFACE ELEVATION (FT.): 1401.60 .1 NORTHING: 892718 EASTING: 481010
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: SOLVENT DIKE SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12 / 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
25					
30					AUGERED TO 20 FT. SAMPLED TO 22 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = <0.5ppm OVA = 3ppm beta/gamma = 40cpm
35					

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 2 DATE STARTED: 11/4/93 DATE FINISHED: 11/7/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-12 SURFACE ELEVATION (FT.): 1399.76 5.5 NORTHING: 892741.58 EASTING: 481055.58
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: NE SOLVENT DIKE SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 12-18	BLOWS ON SAMPLER 6-12 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/12	SS-1	16 40	100 24		Brown GRAVEL, with discontinuous matrix brown clayey SILT; damp. (Hnu:<0.5ppm, beta/gamma:BB) (GM)
	24/12	SS-2	6 18	22 21		Brown soft clayey GRAVEL, with plant debris; wet. (0.5') Brown silty GRAVEL; dry to damp, dense. (0.5') (Hnu:<0.5ppm, beta/gamma:BB) (GM) Dark brown pebbly silty CLAY; damp. (0.5') (CL)
5	24/18	SS-3	10 22	21 17		Cobble (0.1') Orange brown silty coarse SAND and pebble-cobble GRAVEL; moist to wet, dense. (GM) (Hnu:<0.5ppm, beta/gamma:BB)
	24/17	SS-4	13 26	21 12		Yellow brown coarse angular GRAVEL, slighlty sandy and silty, with humic masses; saturated, dense. (GM) (Hnu:<0.5ppm, beta/gamma:120-150cpm AB)
	24/18	SS-5	8 19	20 19		Brown SAND and pebble GRAVEL, slightly silty, with humic masses; saturated, very dense. (GM) (Hnu:<0.5ppm, beta/gamma:100cpm AB)
10	24/20	SS-6	20 26	30 28		Brown very sandy pebble GRAVEL, slighlty silty, with humic masses; saturated, very dense. (GM) (Hnu:<0.5ppm, beta/gamma:BB)
	24/19	SS-7	20 27	28 27		As above.
15	24/19	SS-8	16 33	38 25		As above. (1.1') Brown CLAY, slighlty silty; moist, hard. (0.3') (CL)
	24/22	SS-9	25 54	37 75		Gray CLAY, slightly silty; moist, hard. (0.3') (CL) (Hnu:<0.5ppm, beta/gamma:BB) Brown gray moderately pebbly CLAY, slightly silty; moist, hard. (CL) (Hnu:0ppm, beta/gamma:BB)
						(cont. on page 2)

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMME
3" O.D. SPLITSPOON SAMPLER

SHEET 2 OF: 2 DATE STARTED: 11/4/93 DATE FINISHED: 11/7/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-12 SURFACE ELEVATION (FT.): 1399.76 5.5 NORTHING: 892741.58 EASTING: 481055.58
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: NE SOLVENT DIKE SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12 / 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
					AUGERED TO 16 FT. SAMPLED TO 18 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = <0.5ppm Beta/gamma = 70cpm
25					
30					
35					

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 1 DATE STARTED: 10/21/93 DATE FINISHED: 10/21/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-15 SURFACE ELEVATION (FT.): 1395.80 3 NORTHING: 892608 EASTING: 481176
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: NE SLUDGE PONDS SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12	BLOWS ON SAMPLER 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/10	SS-1	16	50		Brown silty GRAVEL; damp. (GM) (Hnu:<0.1ppm, beta/gamma:BB)
			24	30		
	24/19	SS-2	6	19		Brown silty GRAVEL; wood, insulation. (0.7') (GM)
			28	18		Brown silty GRAVEL, saturated, medium dense. (0.9') (GM) (Hnu:<0.1ppm, beta/gamma:BB)
5	24/22	SS-3	7	28		Brown and orange silty GRAVEL with lumps of orange brown clayey silt; saturated, dense. (GM) (Hnu:<0.1ppm, beta/gamma:BB)
			27	25		
	24/19	SS-4	9	24		Brown silty sandy GRAVEL with some carbonaceous clots; saturated, dense. (GM) (Hnu:<0.1ppm, beta/gamma:BB)
			39	24		
	24/19	SS-5	19	30		Brown sandy GRAVEL; saturated, dense. (GM) (Hnu:<0.1ppm, beta/gamma:BB)
			27	32		
10	24/19	SS-6	10	35		Brown sandy fine to coarse GRAVEL with some clay blebs; saturated, dense. (GM) (Hnu:<0.1ppm, beta/gamma:BB)
			33	45		
	24/19	SS-7	13	33		Brown sandy GRAVEL; saturated, dense. (0.2') (GM)
			43	51		Brown pebbly clayey SILT; saturated, very stiff. (0.2') (ML)
						Gray pebbly silty CLAY; wet, hard. (0.8') (CL)
15						AUGERED TO 12 FT. SAMPLED TO 14 FT. BOREHOLED BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = <0.1ppm beta/gamma = 70cpm

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 1 DATE STARTED: 12/9/93 DATE FINISHED: 12/9/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-15R SURFACE ELEVATION (FT.): 1,395.80 NORTHING: est.892,608.79 EASTING: est.481,178.78
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: NE SLUDGE PONDS SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12 / 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
5					Augered from grade to 11.0 ft. Cuttings comprised a yellow brown slurry of sand and gravel.
10					Brown gray (speckled) very coarse SAND and granule GRAVEL, slightly pebbly; loose, saturated. (0.1') (SP/GM)
	24/22	SS-1	9 / 19 / 32 / 47		Yellow brown silty CLAY, moderately pebbly; damp, hard. (0.5') (CL) Medium gray silty CLAY, moderately pebbly; damp, hard. (1.2') (CL) (Hnu:<1.0ppm, beta/gamma:BB)
15					AUGERED TO 13 FT. SAMPLED FROM 11.0 TO 13.0 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = <1.0ppm beta/gamma = 40cpm

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D.SPLITSPOON SAMPLER

SHEET 1 OF: 1 DATE STARTED: 10/21/93 DATE FINISHED: 10/21/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-16 SURFACE ELEVATION (FT.): 1395.96 4.5 NORTHING: 892684 EASTING: 481341
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: NORTH EQUAL. BASIN SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 12-18	BLOWS ON SAMPLER 6-12 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/17	SS-1	5 9	6 7		Brown slighlty pebbly slightly clayey SILT; root zone, to 0.8' depth, damp. (ML) (Hnu:<1.0ppm, beta/gamma:BB)
	24/24	SS-2	6 21	30 23		Gray and orange slightly clayey SILT; damp, loose. (0.6') (ML) Brown slightly clayey SAND and pebble GRAVEL; locally carbonaceous; damp, dense. (1.4') (ML) (Hnu:<1.0ppm, Beta/gamma:BB)
5	24/19	SS-3	17 13	17 15		Brown mottled coarse SAND and pebble GRAVEL; matrix of silty clay, 4.5' - 6.0', saturated, dense. (GM) (Hnu:<1.0ppm, beta/gamma:BB)
	24/19	SS-4	13 13	13 13		As above.
	24/14	SS-5	7 14	10 14		Brown SAND with scattered rounded pebbles; wet, loose. (0.8') (SW) Brown mottled fine sandy GRAVEL; saturated, medium dense. (0.4') (Hnu:<1.0ppm, beta/gamma:BB) (GM)
10	24/19	SS-6	10 14	11 21		Brown slightly silty SAND and pebble GRAVEL; saturated, medium dense. (0.6') (GM) Brown pebbly clayey SILT; wet, very stiff. (0.2') (ML) Brown gray pebbly clayey SILT; moist, very stiff. (0.8') (ML)
15						AUGERED TO 10 FT. SAMPLED TO 12 FT. BOREHOLE BACKFILLED TO SURFACE BACKGROUND READINGS: Hnu = <1.0ppm beta/gamma = 80-100cpm

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 1 DATE STARTED: 12/8/93 DATE FINISHED: 12/8/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-16R SURFACE ELEVATION (FT.): 1391.12 NORTHING: est.892,684.40 EASTING: est.481,343.66
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATIONORTH EQUALIZATION BASIN SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12	BLOWS ON SAMPLER 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
						Augered from grade to 4.0 ft. Cuttings comprised moist yellow-brown sand and gravel.
5	24/20	SS-1	7	18		Yellow brown silty clayey GRAVEL; gritty, tacky, moist to wet, medium dense. (0.4') (GM)
			16	15		Yellow brown silty coarse SAND and pebble GRAVEL; moderately clayey, humic clots, wet (above) to saturated (below). (1.3') (GM) (Hnu:0.1ppm, beta/gamma:BB)
10						AUGERED TO 4 FT. SAMPLED TO 6 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = 0.1ppm beta/gamma = 50cpm
15						

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 2 DATE STARTED: 10/26/93 DATE FINISHED: 10/26/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-38 SURFACE ELEVATION (FT.): 1,416.03 NORTHING: 893,383.75 EASTING: 480,195.17
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: WEST HAZ WASTE LOCKERS SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12	BLOWS ON SAMPLER 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/11	SS-1	25	37		Brown silty SAND and GRAVEL; dry, very dense. (SM/GM) (Hnu:<1.0ppm, beta/gamma:BB)
			38	19		
	24/11	SS-2	6	7		Dark brown and gray pebbly slightly silty CLAY; damp, stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
			6	7		
	24/17	SS-3	4	7		As above. (0.4')
5			8	15		Dark brown slightly clayey slightly pebbly SILT; with root masses, damp. (0.5') (ML) Yellow brown pebbly SILT and fine SAND; damp. (0.4') (Hnu:<1.0ppm, beta/gamma:BB) (ML)
	24/22	SS-4	22	25		Yellow brown silty sandy GRAVEL; damp, very dense. (Hnu:<1.0ppm, beta/gamma:BB) (GM)
			26	37		
	24/22	SS-5	33	34		Brown silty sandy pebble-cobble GRAVEL; damp to moist, very dense. (GM) (Hnu:<1.0ppm, beta/gamma:BB)
			21	17		
10	24/14	SS-6	12	27		As above.
			38	15		
	24/19	SS-7	11	17		As above. (0.4')
			32	43		Brown silty CLAY, slightly pebbly; damp. (0.4') (CL) Brown gray silty CLAY, slightly pebbly; damp. (0.8') (CL) (Hnu:<1.0ppm, beta/gamma:BB)
15	24/22	SS-8	11	20		Brown gray to gray slightly pebbly slightly silty CLAY; damp, hard. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
			29	39		
	24/24	SS-9	9	15		Gray slightly pebbly slightly silty CLAY; moist, hard. (Hnu:<1.0ppm, beta/gamma:BB) (CL)
			22	27		
	24/24	SS-10	6	11		As above.
			18	22		

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

SHEET 2 OF: 2 DATE STARTED: 10/26/93 DATE FINISHED: 10/26/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	BORING LOG DAMES & MOORE	BOREHOLE NO.: BH-38 SURFACE ELEVATION (FT.): 1,416.03 NORTHING: 893,383.75 EASTING: 480,195.17
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION:WEST HAZ WASTE LOCKERS SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0-6 / 6-12 / 12-18 / 18-24	LITHOLOGY	DESCRIPTION AND NOTES
	24/24	SS-11	4 / 11 / 17 / 18		As above (1.1') Gray clayey coarse SILT and brown CLAY; saturated, very stiff. (0.9') (ML/CL) (Hnu:<1.0ppm, beta/gamma:BB)
	24/24	SS-12	5 / 11 / 18 / 20		Brown gray slightly pebbly silty CLAY; moist, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
25	24/24	SS-13	7 / 12 / 16 / 18		Gray brown slighlty pebbly silty CLAY; moist, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
	24/24	SS-14	10 / 10 / 13 / 15		Brown very slightly pebbly CLAY; moist to wet, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
	24/24	SS-15	5 / 6 / 9 / 10		Brown slighlty pebbly silty CLAY; moist, stiff. (0.5') (CL) Gray brown very slighlty pebbly clayey SILT and fine SAND, locally slightly clayey SILT and fine SAND; wet, stiff. (1.5') (ML/SM) (Hnu:<1.0ppm, beta/gamma:BB)
30					AUGERED TO 28 FT. SAMPLED TO 30 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: Hnu = <1.0ppm beta/gamma = 160cpm
35					

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER
3" O.D. SPLITSPOON SAMPLER

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Appendix B

Borehole Logs and Well Construction Diagrams

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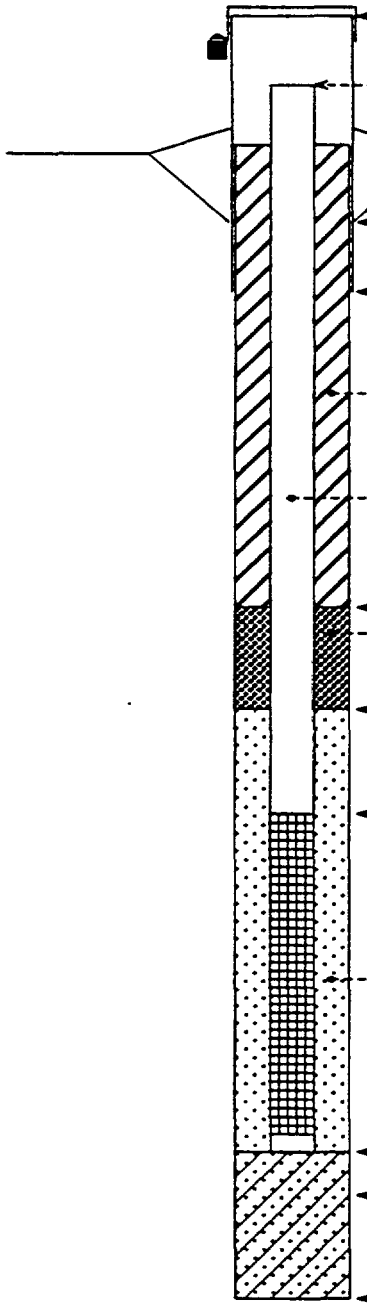
SHEET 1 OF: 1 DATE STARTED: 12/13/89 DATE FINISHED: 12/14/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0201 SURFACE ELEVATION: 1,408.70 NORTHING 892,386.12 EASTING 481,019.84
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: EAST OF WAREHOUSE SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6 12 / 18	6 / 12 18 / 24	LITHOLOGY	DESCRIPTION / NOTES
						Dry, dark brown, coarse GRAVEL, some silt, little clay. (GM)
5						Moist, dark brown, SILT, trace of fine to-medium sand and gravel. (ML) This area east of old warehouse may consist of reworked and/or backfilled material.
						Wet, brown, SILT, trace clay, trace red fine sand. (ML)
10						Moist, dark green-brown, SILT, little medium to coarse gravel. (ML)
						Dry, light brown, GRAVEL, some silt, trace clay. (GM)
						Wet, brown, SAND and GRAVEL, little silt, trace clay. (SW)
15						
						Saturated. (SW)
20						Moist, medium brown, SILT and CLAY, trace fine sand and gravel. Weathered. (ML/CL)
						Augered to 20 ft. See 0202ut for sampling details. The water level was measured at 12.1 ft. b.g.s. - While the bottom of the augers were 20.0 ft. b.g.s.. No radiation detected above background by R/S.
25						
30						
35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84, SEE 0202

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0201
DATE STARTED:	12/13/89		SURFACE ELEVATION:	1,408.70
DATE FINISHED:	12/14/89			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,386.12
FIELD GEOLOGIST:	FJC		EASTING:	481,019.84
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	EAST OF WAREHOUSE
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,412.20 feet MSL
Outer casing stick-up: 3.5 feet
Top of riser elevation: 1,411.68 feet MSL
Riser pipe stick-up: 2.98 feet
Ground surface elevation: 1,408.70 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 1.5 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 2.88 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch. 5
Section lengths (from base) 1-10', 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 8 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.87 cu.ft.
Depth of sand pack: 8 feet

Depth of top of screen: 10 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-10'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.55 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 20.42 feet
Depth of bottom of sand pack: 20.42 feet
Backfill: none
(May or may not be present)
Depth of borehole: 20.42 feet

SHEET 1 OF: 2 DATE STARTED: 12/12/89 DATE FINISHED: 12/15/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0202 SURFACE ELEVATION: 1,408.46 NORTHING 892,373.58 EASTING 481,027.12

PROJECT: WVDP DOE/RCRA wells
JOB NUMBER: 10805-410-023

LOCATION: EAST OF WAREHOUSE
SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/17	SS-1	11	7	13	8		Dry, dark brown, coarse GRAVEL, some silt, little clay. (GM)
	24/6	SS-2	6	7	10	11		
5	24/10	SS-3	3	3	4	2		Moist, dark brown, SILT, trace of fine to medium sand and gravel. (ML) This area east of the old warehouse may consist of reworked and/or backfilled material.
	24/15	SS-4	4	5	6	9		Wet, brown, SILT, trace clay, trace red fine sand. (ML)
	24/18	SS-5	3	8	9	9		Moist, dark green-brown, SILT, little medium to coarse gravel. (ML)
10	24/15	SS-6	2	10	25	27		Dry, light brown, GRAVEL, some silt, trace clay. (GM)
	24/14	SS-7	8	13	18	17		
15	24/18	SS-8	4	18	18	17		Wet, brown, SAND and GRAVEL, little silt, trace clay. (SW)
	24/15	SS-9	9	13	17	22		
	24/16	SS-10	2	8	27	19		Saturated, brown, sandy GRAVEL, little silt. (GW)
20	24/15	SS-11	12	13	13	17		Moist, medium brown, SILT and CLAY, trace fine sand and gravel. Weathered. (ML/CL)
	24/18	SS-12	9	9	12	16		Moist, dark gray, silty CLAY. Unweathered. (CL)
25	24/22	SS-13	4	6	10	12		
	24/24	SS-14	5	8	9	10		Moist, dark gray, CLAY and SILT, trace fine sand, trace gravel. (ML/CL)
	24/22	SS-15	7	6	6	13		
30	24/23	SS-16	4	5	8	8		
	24/5	SS-17	4	7	11	15		
35	24/23	SS-18	2	3	7	6		
	24/24	SS-19	5	11	14	15		Moist, gray, SAND and GRAVEL, some silt. (SM)
	24/22	SS-20	5	8	11	20		Wet, dark gray, SILT and CLAY, trace fine sand and gravel. (ML)

CLASSIFICATION: VISUAL (Modified Burmister), USCS

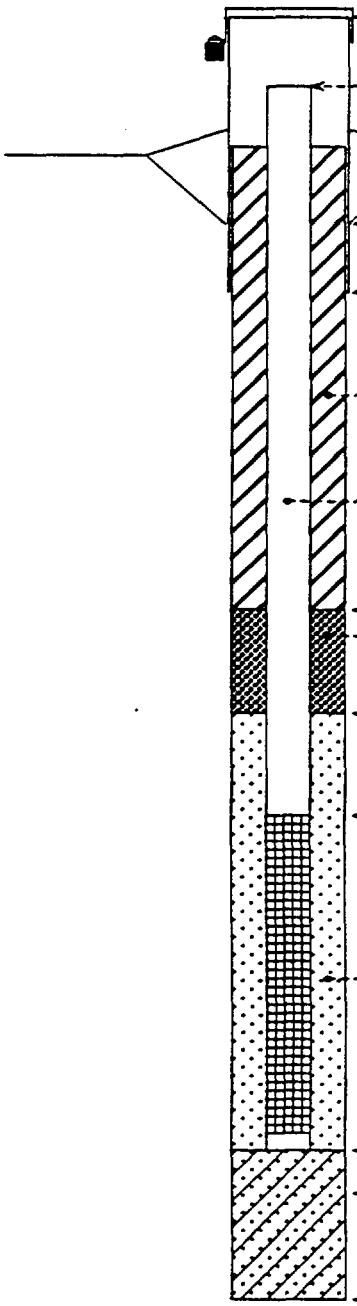
METHOD OF SAMPLING: ASTM D1586-84,

SHEET 2 OF: 2 DATE STARTED: 12/12/89 DATE FINISHED: 12/15/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0202 SURFACE ELEVATION: 1,408.46 NORTHING 892,373.58 EASTING 481,027.12
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: EAST OF WAREHOUSE SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/24	SS-21	2	6	8	9		Moist, dark gray, SILT and CLAY, trace fine sand and gravel. (ML/CL)
	24/24	SS-22	3	7	11	17		
45	24/18	SS-23	2	8	11	12		
	24/18	SS-24	4	8	12	15		
	24/24	SS-25	4	9	9	15		
50								Drilled to 48.0 feet. Sampled to 50.0 feet. The water level was measured at 13.0 ft. b.g.s.- While the bottom of the augers were 29.0 ft. b.g.s.. No radiation detected above background by R/S.
55								
60								
65								
70								
75								

CLASSIFICATION: VISUAL (Modified Burmister), USCS METHOD OF SAMPLING: ASTM D1586-84,

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0202
DATE STARTED:	12/12/89		SURFACE ELEVATION:	1,408.46
DATE FINISHED:	12/15/89			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,373.58
FIELD GEOLOGIST:	FJC		EASTING:	481,027.12
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	EAST OF WAREHOUSE
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,410.76 feet MSL
Outer casing stick-up: 2.3 feet
Top of riser elevation: 1,410.22 feet MSL
Riser pipe stick-up: 1.76 feet
Ground surface elevation: 1,408.46 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.7 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 13.88 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch. 5
Section lengths (from base) 3-10', 1-5'
I.D. of riser pipe: 2 inches
Depth of seal: 28 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.87 cu.ft.
Depth of sand pack: 31.0 feet

Depth of top of screen: 33 feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.125 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 38.42 feet
Depth of bottom of sand pack: 38.5 feet
Backfill: cement-bentonite grout
(May or may not be present)
Depth of borehole: 50 feet

SHEET 1 OF: 1 DATE STARTED: 12/26/89 DATE FINISHED: 12/26/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0203 SURFACE ELEVATION: 1,405.14 NORTHING 892,636.62 EASTING 481,012.89
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: NORTH OF SLUDGE PONDS SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
								Dark brown, TOPSOIL. (OL)
								Wet, medium brown, coarse GRAVEL, some sand, some silt. (GM)
5								Moist, dark brown, SAND and medium GRAVEL, some silt. (GM)
10								
								Moist, medium brown, SAND and GRAVEL, little silt, trace clay. (GM)
15								
								Moist, dark gray, CLAY and SILT, trace fine to coarse gravel. (CL)
20								AUGERED TO 18.0 FT. SEE 0204 FOR SAMPLING DETAILS NO WATER LEVEL MEASUREMENTS WERE RECORDED. NO RADIATION WAS DETECTED ABOVE BACKGROUND BY R/S.
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30								
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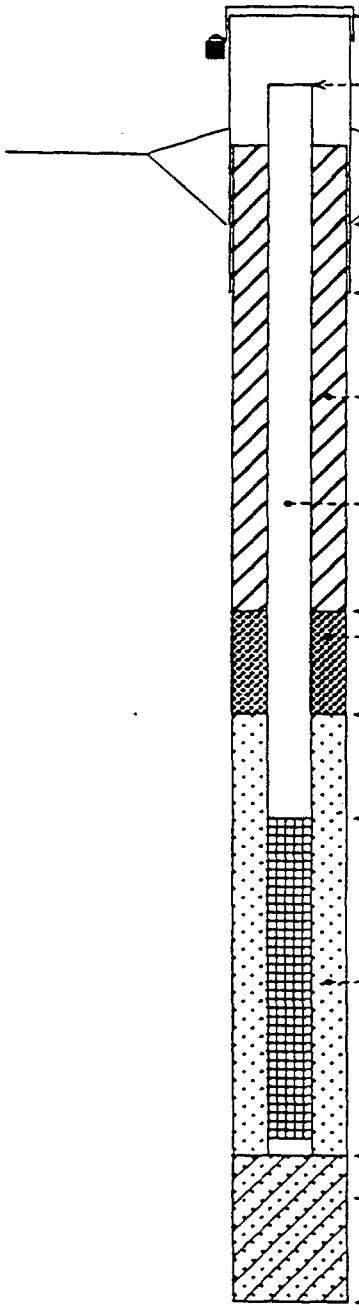
CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84, SEE 0204

SHEET 1 OF 1 DATE STARTED: 12/28/89 DATE FINISHED: 12/28/89 DRILLER: Empire Soils Inc. Hamburg, New York FIELD GEOLOGIST: FJC	Dames & Moore Overburden Well Construction	HOLE/WELL NO.: 0203 SURFACE ELEVATION: 1,405.14 NORTHING: 892,838.82 EASTING: 481,012.89
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: NORTH OF SLUDGE PONDS SSWMU Locale: 2



Top of outer casing elevation: 1,407.89 feet MSL
Outer casing stick-up: 2.75 feet
Top of riser elevation: 1,407.41 feet MSL
Riser pipe stick-up: 2.27 feet
Ground surface elevation: 1,405.14 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.25 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 1.44 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-10'
I.D. of riser pipe: 2 inches
Depth of seal: 4 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 5.9 feet

Depth of top of screen: 8 feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-10'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 3.4 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 18.42 feet
Depth of bottom of sand pack: 18.7 feet
Backfill: none
(May or may not be present)
Depth of borehole: 18.7 feet

SHEET 1 OF: 2 DATE STARTED: 12/19/89 DATE FINISHED: 12/26/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0204 SURFACE ELEVATION: 1,404.74 NORTHING 892,636.77 EASTING 481,017.23
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: NORTH OF SLUDGE PONDS SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/5	SS-1	6	14	13	11		Dark brown, TOPSOIL. (OL)
	24/4	SS-2	19	4	5	8		Wet, medium brown, coarse GRAVEL, some sand, some silt. (GM)
5	24/9	SS-3	5	15	19	14		Damp. (GM)
	24/6	SS-4	29	23	25	24		Moist, dark brown, SAND and medium GRAVEL, some silt. (GM)
	24/7	SS-5	35	30	35	38		
10	24/4	SS-6	5	25	30	38		
	24/12	SS-7	10	14	14	12		Wet, medium brown, SAND and GRAVEL, little silt, trace clay. (GM)
15	24/15	SS-8	16	14	21	26		
	24/20	SS-9	13	15	27	30		Moist, dark gray, CLAY and SILT, trace fine to coarse GRAVEL. (CL)
	24/18	SS-10	4	7	4	12		Saturated, medium GRAVEL and SAND, some silt. (GM)
20	24/22	SS-11	8	9	14	13		Moist, dark gray, CLAY and SILT, trace fine sand, fine to coarse gravel. (CL)
	24/7	SS-12	16	17	24	29		
25	24/23	SS-13	7	16	15	22		
	24/24	SS-14	12	11	18	21		
	24/22	SS-15	5	6	11	15		Saturated, SAND lens at 28.5 to 28.7 ft. b.g.s..
30	24/16	SS-16	3	5	8	11		Wet. (CL)
	24/23	SS-17	5	7	11	14		
35	24/24	SS-18	7	8	11	13		Saturated. (CL)
	24/16	SS-19	8	28	30	20		Saturated, gray-green, fine to medium SAND. (SW)
	24/20	SS-20	8	23	13	26		Wet, medium brown, SILT and SAND. (SM) Saturated, brown-gray, fine to coarse SAND and GRAVEL. (GM)

CLASSIFICATION: VISUAL (Modified Burmister),USCS METHOD OF SAMPLING: ASTM D1586-84,

SHEET 2 OF: 2 DATE STARTED: 12/19/89 DATE FINISHED: 12/26/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0204 SURFACE ELEVATION: 1,404.74 NORTHING 892,636.77 EASTING 481,017.23

PROJECT: WVDP DOE/RCRA wells
JOB NUMBER: 10805-410-023

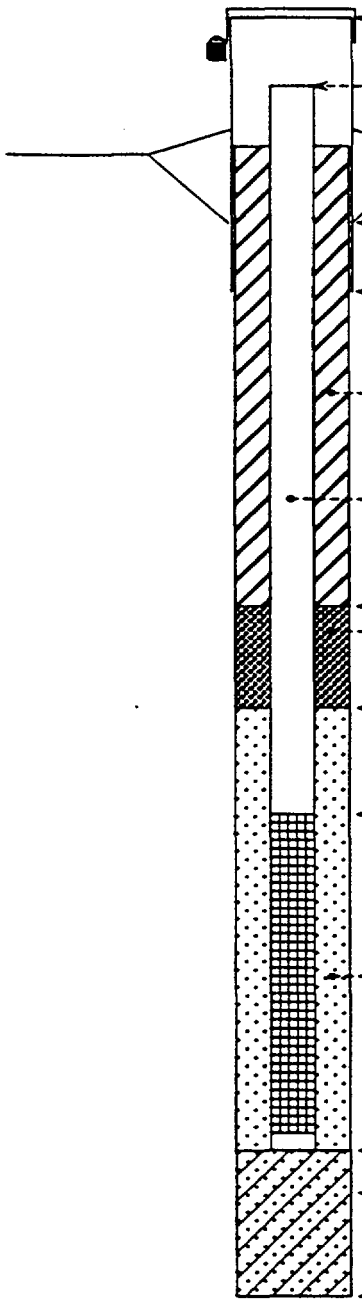
LOCATION: NORTH OF SLUDGE PONDS
SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/23	SS-21	10	18	19	26		SILT and CLAY lens.
	24/24	SS-22	8	9	11	16		Wet, gray, SAND and GRAVEL. (SW/GW)
45	24/22	SS-23	4	6	10	16		Wet, medium brown, SILT and CLAY, trace gravel, trace sand. (ML/CL)
	24/23	SS-24	9	10	13	20		
	24/22	SS-25	4	5	10	14		
50	24/16	SS-26	8	6	11	17		Moist, dark gray, silty CLAY, Unweathered. (CL)
	24/24	SS-27	6	11	13	18		
55	24/24	SS-28	4	8	9	11		
	24/24	SS-29	9	10	11	18		fine, SAND layer at 57.3 to 57.8 ft. b.g.s..
	24/18	SS-30	7	11	14	20		Moist, dark gray, CLAY and SILT, trace sand, trace gravel. (ML/CL)
60	24/20	SS-31	5	6	9	15		
	24/18	SS-32	8	14	18	27		
65	24/18	SS-33	5	15	24	24		
	24/20	SS-34	13	15	21	30		
70								AUGERED TO 66 FT. SAMPLED TO 68 FT. THE WATER LEVEL WAS MEASURED AT 10.6 FT. B.G.S. - WHILE THE BOTTOM OF THE AUGERS WERE 64.0 FT. B.G.S.. NO RADIATION WAS DETECTED ABOVE BACKGROUND BY R/S.
75								

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84,

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0204
DATE STARTED:	12/19/89		SURFACE ELEVATION:	1,404.74
DATE FINISHED:	12/26/89			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,836.77
FIELD GEOLOGIST:	FJC		EASTING:	481,017.23
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	NORTH OF SLUDGE PONDS
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,407.65 feet MSL
Outer casing stick-up: 2.91 feet
Top of riser elevation: 1,406.70 feet MSL
Riser pipe stick-up: 1.96 feet
Ground surface elevation: 1,404.74 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.09 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 15.84 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 4-10'
I.D. of riser pipe: 2 inches
Depth of seal: 34 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 35.7 feet

Depth of top of screen: 38 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.55 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 43.42 feet
Depth of bottom of sand pack: 43.5 feet
Backfill: Cement-bentonite grout
(May or may not be present)
Depth of borehole: 68.0 feet

SHEET 1 OF: 1 DATE STARTED: 1/12/90 DATE FINISHED: 1/13/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: JTB	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0205 SURFACE ELEVATION: 1,396.35 NORTHING 892,662.61 EASTING 481,165.77

PROJECT: WVDP DOE/RCRA wells
JOB NUMBER: 10805-410-023

LOCATION: NE. OF SLUDGE BASINS
SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/3	SS-1	5	7	5	6		Moist, brown, organic TOPSOIL composed of SILT, little fine sand, trace fine subangular gravel, trace clay. (OL)
	24/12	SS-2	4	6	3	9		Wet, light brown to orangeish brown, SILT, trace fine subangular gravel, trace fine sand, trace clay. (ML)
5	24/14	SS-3	10	16	15	14		Saturated, light brown, fine to medium SAND and fine GRAVEL, little silt, trace clay, trace green mottling. (GM/GC)
	24/10	SS-4	7	9	8	16		Saturated, brown, fine to medium subangular GRAVEL and fine to medium SAND, trace silt. (GM)
	24/10	SS-5	8	19	17	18		Trace orange mottling. (GM)
10	24/18	SS-6	10	28	17	41		
	24/13	SS-7	10	14	27	32		Saturated, brown to gray, CLAY and SILT, trace subangular gravel. Weathered till. (ML/CL)
15								Saturated, gray, CLAY and SILT, trace subangular gravel. Unweathered till. (ML/CL)
20								AUGERED TO 14.0 FT. SAMPLED TO 14.0 FT. THE WATER LEVEL WAS MEASURED AT 6.0 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 14.0 FT. B.G.S. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.
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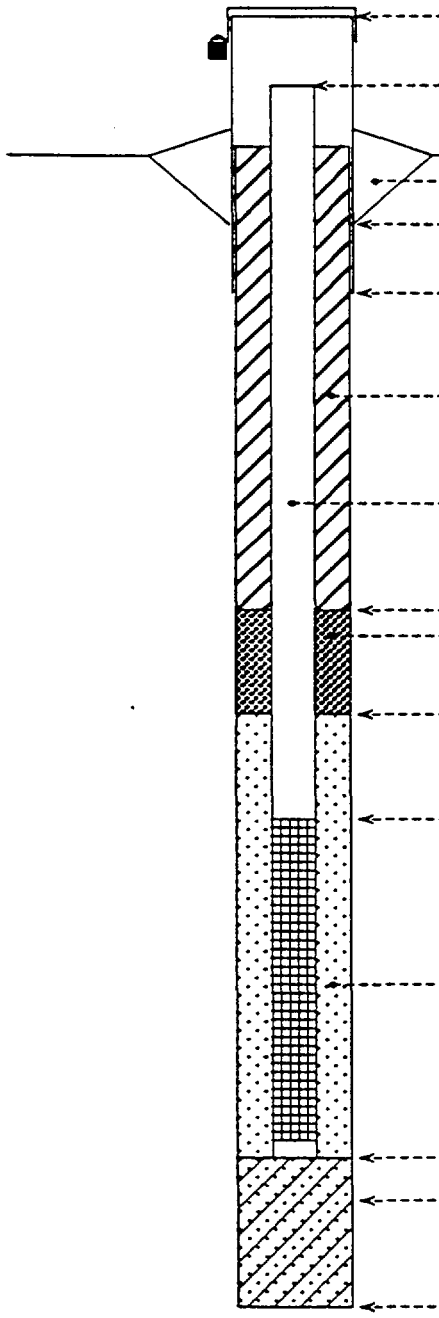
CLASSIFICATION: VISUAL (Modified Burmister), USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0205
DATE STARTED:	1/12/90		SURFACE ELEVATION:	1,398.35
DATE FINISHED:	1/13/90			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,662.61
FIELD GEOLOGIST:	JTB		EASTING:	481,165.77
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	NE. OF SLUDGE BASINS
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,398.66 feet MSL
Outer casing stick-up: 2.31 feet
Top of riser elevation: 1,398.32 feet MSL
Riser pipe stick-up: 1.97 feet
Ground surface elevation: 1,396.35 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.69 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: .24 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-5', 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 2.5 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 1.34 cu.ft.
Depth of sand pack: 4.5 feet

Depth of top of screen: 6.0 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 1.70 cu.ft.

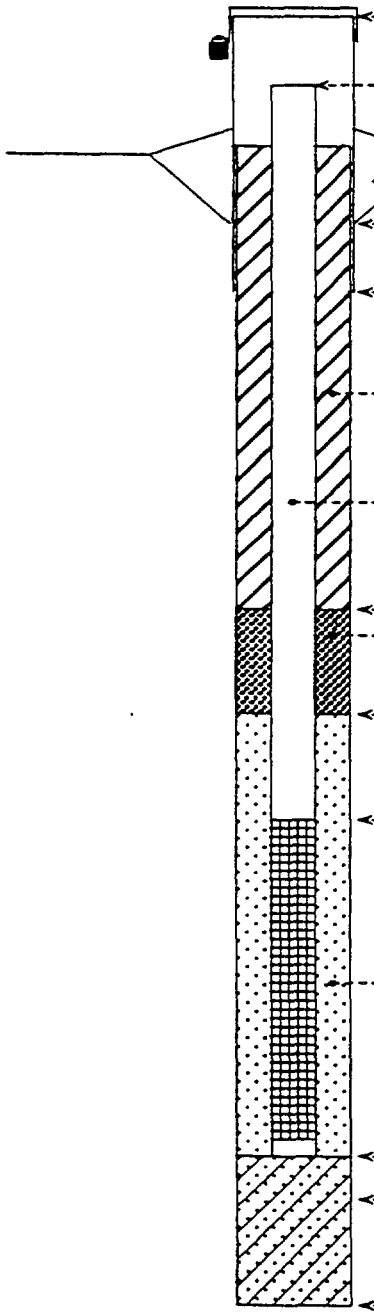
Depth to bottom of screen with attached 5 inch sump: 11.42 feet
Depth of bottom of sand pack: 12.0 feet
Backfill: bentonite pellets
(May or may not be present)
Depth of borehole: 14.0 feet

SHEET 1 OF: 1 DATE STARTED: 1/16/90 DATE FINISHED: 1/17/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: JTB	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0206 SURFACE ELEVATION: 1,396.14 NORTHING 892,663.00 EASTING 481,171.95
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: NE. OF SLUDGE PONDS SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
								Moist, brown, organic TOPSOIL composed of SILT, little fine sand, trace fine subangular gravel, trace clay. (OL)
								Wet, light brown to orangeish SILT, trace fine subangular gravel, trace fine sand, trace clay. (ML)
5								Saturated, light brown, fine to medium SAND and fine GRAVEL, little silt, trace clay, trace green mottling. (GM/GC)
								Saturated, brown, fine to medium subangular GRAVEL and fine to medium sand, trace silt. (GM)
10								Trace orange mottling. (GM)
								Saturated, brown to gray CLAY and SILT, trace subangular gravel. Weathered till. (ML/CL)
15	24/18	SS-1	13	15	23	26		Saturated, gray CLAY and SILT, trace subangular gravel. Unweathered till. (ML/CL)
	24/18	SS-2	8	11	19	24		Damp, gray SILT, little fine to medium gravel, trace to little clay. (ML/CL)
	24/22	SS-3	7	13	18	25		
20	24/24	SS-4	4	9	15	22		Saturated, gray SILT, some clay, trace fine to medium subangular black gravel. (ML/CL)
	24/18	SS-5	7	8	13	17		Silty, SAND lens 22.0 – 22.2 ft. Saturated, gray CLAY and SILT, trace fine subangular black gravel. (ML/CL)
25	24/24	SS-6	3	7	12	10		
	24/24	SS-7	4	8	11	12		
	24/24	SS-8	3	4	6	8		
30	24/	SS-9	3	5	11	11		
	24/24	SS-10	6	8	21	28		
35	24/18	SS-11	7	10	21	22		Saturated, gray, fine to medium SAND, some to trace silt. (SM) Saturated, fine to medium GRAVEL and SAND, trace silt. (SM/GM)
	24/18	SS-12	7	6	7	12		Saturated, gray CLAY, some silt, trace fine gravel and sand. (CL)
	24/24	SS-13	3	7	10	12		AUGERED TO 38 FT. SAMPLED TO 40 FT. NO WATER IN BOREHOLE. NO RADIATION DETECTED BY R/S.

CLASSIFICATION: VISUAL (Modified Burmister),USCS METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0208
DATE STARTED:	1/16/90		SURFACE ELEVATION:	1,398.14
DATE FINISHED:	1/17/90			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,663.00
FIELD GEOLOGIST:	JTB		EASTING:	481,171.95
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	NE. OF SLUDGE PONDS
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,398.54 feet MSL
Outer casing stick-up: 2.40 feet
Top of riser elevation: 1,398.39 feet MSL
Riser pipe stick-up: 2.25 feet
Ground surface elevation: 1,398.14 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.60 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 8.64 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 3-10', 1-5'
I.D. of riser pipe: 2 inches
Depth of seal: 28.5 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 31.8 feet

Depth of top of screen: 32.8 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 1.7 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 38.24 feet
Depth of bottom of sand pack: 38.24 feet
Backfill:
(May or may not be present)
Depth of borehole: 40.0 feet

SHEET 1 OF: 1 DATE STARTED: 1/11/90 DATE FINISHED: 1/11/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0207 SURFACE ELEVATION: 1,396.63 NORTHING 892,469.64 EASTING 481,314.50
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: E. OF MIXING BASIN SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/16	SS-1	7	9	13	17		Moist, dark brown, SILT, little gravel, roots. (ML) Dry, GRAVEL and SILT, some sand. (GM)
	24/8	SS-2	9	8	13	17		Moist, medium brown, SILT, little gravel and sand. (ML)
5	24/2	SS-3	7	10	7	6		
	24/15	SS-4	3	2	2	1		Saturated, medium brown, SILT, some sand, little gravel. (ML/SM)
	24/17	SS-5	3	10	24	26		
10	24/15	SS-6	18	18	17	16		Moist, medium brown, SILT and CLAY, trace gravel and sand. (ML/CL)
	24/17	SS-7	19	16	29	53		Moist, dark gray, SILT and CLAY, trace gravel and sand. (ML/CL)
15								AUGERED TO 12.5 FT. SAMPLED TO 14.0 FT. THE WATER LEVEL WAS MEASURED AT 8.5 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 10.0 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.
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25								
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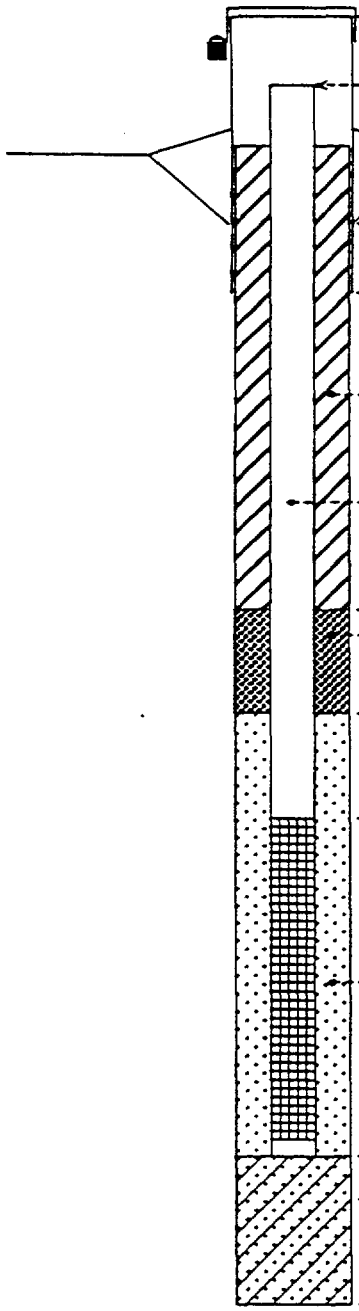
CLASSIFICATION: VISUAL (Modified Burmister), USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0207
DATE STARTED:	1/11/90		SURFACE ELEVATION:	1,398.83
DATE FINISHED:	1/11/90			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,469.64
FIELD GEOLOGIST:	FJC		EASTING:	481,314.50
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	E. OF MIXING BASIN
JOB NUMBER:	10805-410-023		SSWMU Locale:	2



Top of outer casing elevation: 1,399.23 feet MSL
Outer casing stick-up: 2.60 feet
Top of riser elevation: 1,398.62 feet MSL
Riser pipe stick-up: 1.99 feet
Ground surface elevation: 1,398.83 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.4 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 1.44 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-5', 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 3 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 5.1 feet

Depth of top of screen: 6 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.125 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 11.42 feet
Depth of bottom of sand pack: 12.5 feet
Backfill: Ottawa flintshot 3.0 (fine)
(May or may not be present)
Depth of borehole: 14 feet

SHEET 1 OF: 2 DATE STARTED: 1/11/90 DATE FINISHED: 1/11/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0208 SURFACE ELEVATION: 1396.78 NORTHING 892,455.14 EASTING 481,310.99
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: E. OF MIXING BASIN SSWMU Locale: 2

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
								Moist, dark brown, SILT, little gravel. (ML)
								Dry, GRAVEL and SILT, some sand. (GM)
								Moist, medium brown, SILT, little gravel and sand. (ML) This area east of the mixing basin may consist of reworked and/or backfilled material.
5								Saturated, medium brown, SILT, some sand, little gravel. (ML)
10								Moist, medium brown, SILT and CLAY, trace gravel and sand. (ML/CL)
								Moist, dark gray, SILT and CLAY, trace gravel and sand. (ML/CL)
15	24/16	SS-1	10	10	12	19		Wet to saturated, dark gray, coarse SAND and fine to medium GRAVEL, trace silt. (SP)
	24/13	SS-2	1	6	6	17		Saturated, coarse SAND and fine to medium GRAVEL, trace silt. (SP)
	24/2	SS-3	8	14	9	9		
20	24/18	SS-4	4	12	10	10		Moist, dark gray, SILT and CLAY lens. (ML) Dark gray, fine SAND. (SP)
	24/0	SS-5	16	17	20	23		No recovery.
25	24/22	SS-6	4	9	17	15		Moist, dark gray, SILT and CLAY, trace gravel and sand. (ML/CL)
	24/17	SS-7	9	8	13	15		
	24/18	SS-8	4	7	11	9		
30	24/0	SS-9	6	13	16	18		No recovery.
	24/18	SS-10	8	10	14	19		
35	24/20	SS-11	6	9	15	15		
	24/23	SS-12	3	7	11	15		
	24/18	SS-13	3	6	10	15		Wet, dark gray, SILT and CLAY, trace gravel and sand. (ML/CL)

CLASSIFICATION: VISUAL (Modified Burmister), USCS

METHOD OF SAMPLING: ASTM D1586-84
SEE 0207 FOR ADDITIONAL SAMPLING

SHEET 2 OF: 2 DATE STARTED: 1/11/90 DATE FINISHED: 1/11/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0208 SURFACE ELEVATION: 1396.78 NORTHING 892,455.14 EASTING 481,310.99
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: E. OF MIXING BASIN SSWMU Locale: 2

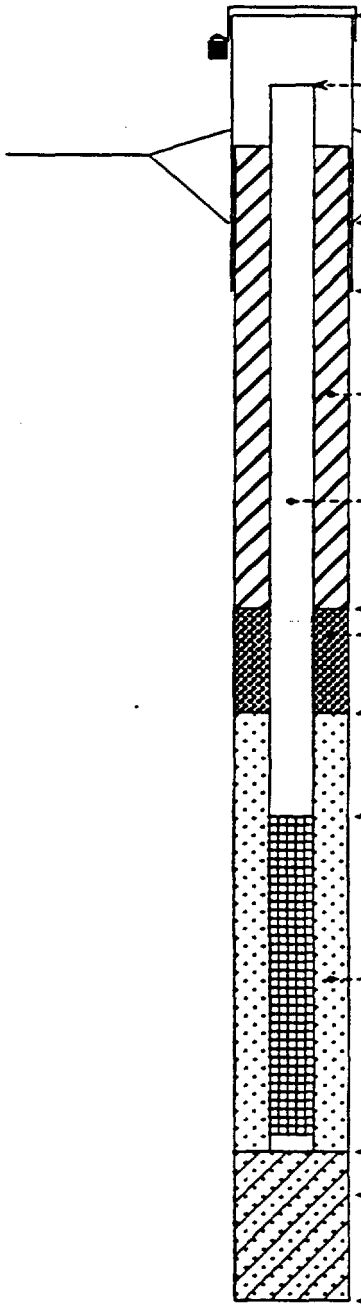
DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/18	SS-14	11	14	19	25		Moist, dark gray, SILT and CLAY, trace gravel and sand. (ML/CL) Trace of shale and rock fragments. (ML)
	24/12	SS-15	7	9	19	21		
45	24/12	SS-16	6	30	41	23		
	24/19	SS-17	5	10	14	24		
	24/16	SS-18	9	10	19	23		
50	24/15	SS-19	10	12	23	31		
	24/24	SS-20	9	10	16	19		
55	24/23	SS-21	6	11	13	19		
	24/24	SS-22	6	10	13	15		
	24/20	SS-23	–	–	8	17		
60	24/24	SS-24	7	18	16	22		
65								AUGERED TO 60 FT. SAMPLED TO 62 FT. BOREHOLE GROUTED FROM 23.3 TO 62 FT. B.G.S.. THE WATER LEVEL WAS MEASURED AT 16 FT.B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 16 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.
70								
75								

CLASSIFICATION: VISUAL (Modified Burmister), USCS

METHOD OF SAMPLING: ASTM D1586-84
SEE 0207 FOR ADDITIONAL SAMPLING

SHEET 1 OF 1		HOLE/WELL NO.:	0208
DATE STARTED:	1/11/90	SURFACE ELEVATION:	1398.78
DATE FINISHED:	1/11/90		
DRILLER:	Empire Soils Inv. Hamburg, New York	NORTHING:	892,455.14
FIELD GEOLOGIST:	FJC	EASTING:	481,310.99
PROJECT:	WVDP DOE/RCRA wells	LOCATION:	E. OF MIXING BASIN
JOB NUMBER:	10805-410-023	SSWMU Locale:	2

Dames & Moore
Overburden
Well Construction



Top of outer casing elevation: 1,399.38 feet MSL
Outer casing stick-up: 2.60 feet
Top of riser elevation: 1,398.82 feet MSL
Riser pipe stick-up: 2.04 feet
Ground surface elevation: 1,396.78 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.40 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 2.88 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 2-10'
I.D. of riser pipe: 2 inches
Depth of seal: 14 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.87 cu.ft.
Depth of sand pack: 15.9 feet

Depth of top of screen: 18 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.55 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 23.42 feet
Depth of bottom of sand pack: 23.42 feet
Backfill: cement/bentonite
(May or may not be present)
Depth of borehole: 62 feet

SHEET 1 OF: 1 DATE STARTED: 12/12/89 DATE FINISHED: 12/13/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: JTB	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0301 SURFACE ELEVATION: 1,416.13 NORTHING 892,558.93 EASTING 480,551.54
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: SW OF CSS SSWMU Locale: 3

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6 / 12 / 18	BLOWS ON SAMPLER 6 / 12 / 18 / 24	LITHOLOGY	DESCRIPTION / NOTES
						Moist, brown, SILT, some fine to medium subangular gravel, little sand, trace clay, orange and green mottling. (GM)
5						Moist, light to dark brown, silty SAND and fine to coarse GRAVEL, trace clay. (GM) Saturated, brown. (GM)
	24/8	SS-1	16 15	16 13		Saturated,brown, fine to coarse subangular GRAVEL, little fine to coarse sand, trace silt. (GM)
10						Some silt. (GM/ML) Saturated, brown, silty SAND and fine to coarse GRAVEL, little subangular shale fragments. (GP/ML)
15	24/6	SS-2	11	200		Saturated, brown, fine to coarse subangular GRAVEL and fine to medium SAND, little silt. (GW) Two-inch fossil fragment in end of spoon (brachiopod).
						Saturated, brown, SILT, little fine sand, trace clay and fine subangular gravel. Weathered till. (ML)
20						Augered to 17.0 ft. Sampled 8-10 ft. and 14-16 ft. See log 0302 for complete sampling details. The water level at completion of well installation was 8.75 ft. b.g.s.. No radiation detected above background by R/S.
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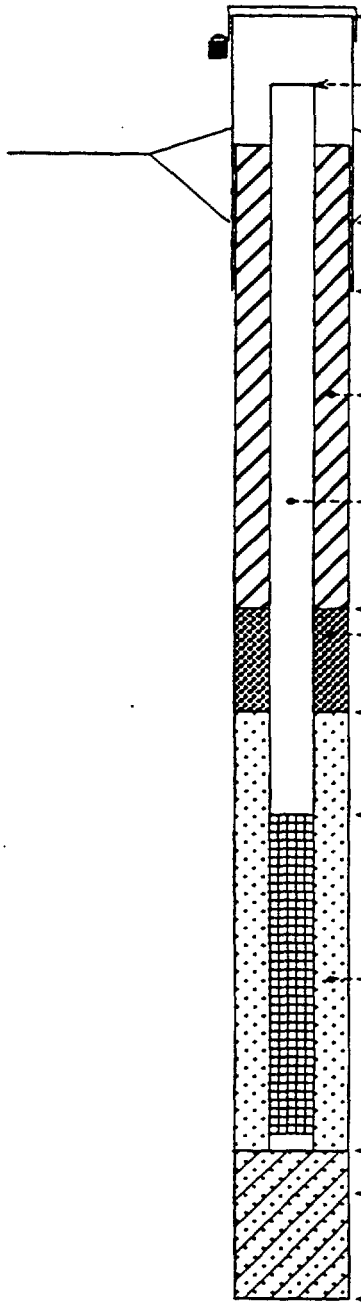
CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84
SEE 0302 FOR COMPLETE DESCRIPTION

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0301
DATE STARTED:	12/12/89		SURFACE ELEVATION:	1,416.13
DATE FINISHED:	12/13/89			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,558.93
FIELD GEOLOGIST:	JTB		EASTING:	480,551.54
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	SW OF CSS
JOB NUMBER:	10805-410-023		SSWMU Locale:	3



Top of outer casing elevation: 1,418.31 feet MSL
Outer casing stick-up: 2.18 feet
Top of riser elevation: 1,418.18 feet MSL
Riser pipe stick-up: 2.05 feet
Ground surface elevation: 1,416.13 feet MSL
Type of surface seal: QUICKRETE
Depth of surface seal: 3.00 inches

Depth of outer casing: 2.82 feet
I.D. of outer casing: 6 inches
Type of outer casing: STEEL
Type of backfill: CEMENT/BENTONITE
Volume of backfill: 0.72 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 S.S. FLUSHJOINT, SCH.5
Section lengths (from base) 1-5' + 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 3.0 feet
Type of seal: BENTONITE PELLETS (1/4" DIA.)
Volume of seal: .804 cu.ft.
Depth of sand pack: 5 feet

Depth of top of screen: 6 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-10'
I.D. of screen: 2 inches

Type of sand pack: OTTAWA FLINTSHOT 3.0
Volume of sand pack: 4.04 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 16.42 feet
Depth of bottom of sand pack: 17 feet
Backfill:
(May or may not be present)
Depth of borehole: 17 feet

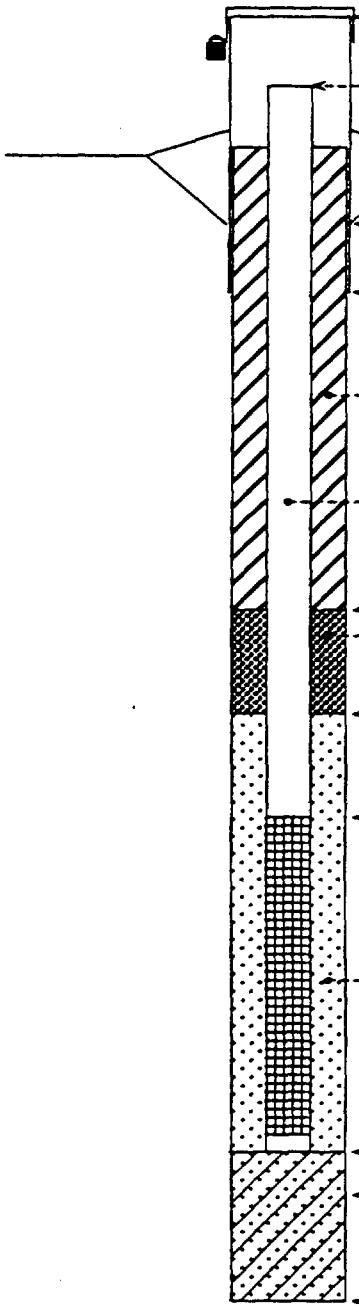
SHEET 1 OF: 1 DATE STARTED: 12/11/89 DATE FINISHED: 12/12/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: JTB	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0302 SURFACE ELEVATION: 1,416.22 NORTHING 892,564.84 EASTING 480,547.64
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: SW OF CSS SSWMU Locale: 3

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/10	SS-1	6	6	12	24		Moist, brown, SILT, some fine to medium subangular gravel, little sand, trace clay, orange and green mottling. (GM)
	24/19	SS-2	12	14	19	15		
5	24/19	SS-3	9	13	10	16		Moist, light to dark, brown, silty SAND and fine to coarse GRAVEL, trace clay. (GM)
	24/15	SS-4	9	13	11	18		Saturated, brown. (GM)
	24/10	SS-5	8	11	11	15		
10	24/12	SS-6	6	16	18	12		Some silt. (GM/ML)
	24/11	SS-7	6	8	12	20		Saturated, brown, silty SAND and fine to coarse GRAVEL, little subangular shale fragments. (GP/ML)
15	24/16	SS-8	29	20	21	22		Saturated, light brown with red and orange mottling. (GP/ML)
	24/15	SS-9	6	9	17	19		Saturated, brown, SILT, little fine sand, trace clay and fine subangular gravel. Weathered till. (ML)
	24/22	SS-10	4	6	8	10		Wet, gray SILT, some clay, trace fine sand and fine to medium subangular gravel. Unweathered. (CL)
20	24/24	SS-11	5	11	6	6		Some to little sand. (CL)
	24/22	SS-12	4	6	25	18		Wet, gray, SILT, little clay, little fine to medium sand and gravel, brown-red mottling. (CL)
25	24/17	SS-13	3	8	11	11		Saturated, brown-orange, fine to coarse SAND and fine to coarse subangular GRAVEL, trace clay. (SP)
	24/22	SS-14	4	8	7	11		Little silt and clay. (SP/SM)
	24/17	SS-15	3	6	10	12		Saturated, brown-gray, sandy SILT, little clay, trace fine to medium gravel. Unweathered. (ML/CL)
30	24/21	SS-16	3	6	8	13		Saturated, dark gray, SILT, some clay, trace fine sand, trace fine to medium subangular gravel. (CL)
35								Augered to 30.0 ft. Sampled to 32.0 ft. The water level was measured at 17.1 ft. b.g.s.- While the bottom of the augers were 30.0 ft. b.g.s.. No radiation detected above background by R/S.

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1 DATE STARTED: 12/11/89 DATE FINISHED: 12/12/89 DRILLER: Empire Soils Inv. Hamburg, New York FIELD GEOLOGIST: JTB	Dames & Moore Overburden Well Construction	HOLE/WELL NO.: 0302 SURFACE ELEVATION: 1,416.22 NORTHING: 892,584.84 EASTING: 480,547.64
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: SW OF CSS SSWMU Locale: 3



Top of outer casing elevation: 1,418.46 feet MSL
Outer casing stick-up: 2.24 feet
Top of riser elevation: 1,418.33 feet MSL
Riser pipe stick-up: 2.11 feet
Ground surface elevation: 1,416.22 feet MSL
Type of surface seal: QUICKRETE
Depth of surface seal: 4 inches

Depth of outer casing: 2.76 feet
I.D. of outer casing: 6 inches
Type of outer casing: STEEL
Type of backfill: CEMENT/BENTONITE
Volume of backfill: 4.32 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 S.S. FLUSHJOINT, SCH 5
Section lengths (from base) 2-10, 1-5'
I.D. of riser pipe: 2 inches
Depth of seal: 18 feet
Type of seal: BENTONITE PELLETS (1/4" DIA.)
Volume of seal: .84 cu.ft.
Depth of sand pack: 21 feet

Depth of top of screen: 23 feet
Screen: S.S. JOHNSON CHANNEL PACK, 10 SLOT
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: OTTAWA FLINTSHOT 3.0
Volume of sand pack: 2.34 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 28.42 feet
Depth of bottom of sand pack: 30 feet
Backfill:
(May or may not be present)
Depth of borehole: 32 feet

SHEET 1 OF: 1 DATE STARTED: 11/8/89 DATE FINISHED: 11/8/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0401 SURFACE ELEVATION: 1,416.79 NORTHING 892,674.32 EASTING 480,501.55
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: EAST OF TRAILER J SSWMU Locale: 4

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/18	SS-1	4	11	13	11		Medium brown, silty GRAVEL and SAND. (GP)
	24/5	SS-2	12	26	21	26		
5	24/16	SS-3	10	16	12	13		
	24/19	SS-4	8	11	11	17		Medium brown, SAND and GRAVEL, some silt. (SM)
	24/13	SS-5	5	13	21	16		
10	24/17	SS-6	4	14	21	27		
	24/19	SS-7	9	19	25	25		
15	24/17	SS-8	8	15	17	22		Medium brown, clayey SILT, trace gravel and sand. (ML)
	24/17	SS-9	16	14	28	32		Moist, medium brown to dark gray, SILT, some clay, trace gravel, trace sand. (ML)
20								Augered to 16 ft. Sampled to 18 ft. The water level was measured at 6.8 ft. b.g.s.- While the bottom of the augers were 16.0 ft. b.g.s.. No radiation detected above background by R/S.
25								
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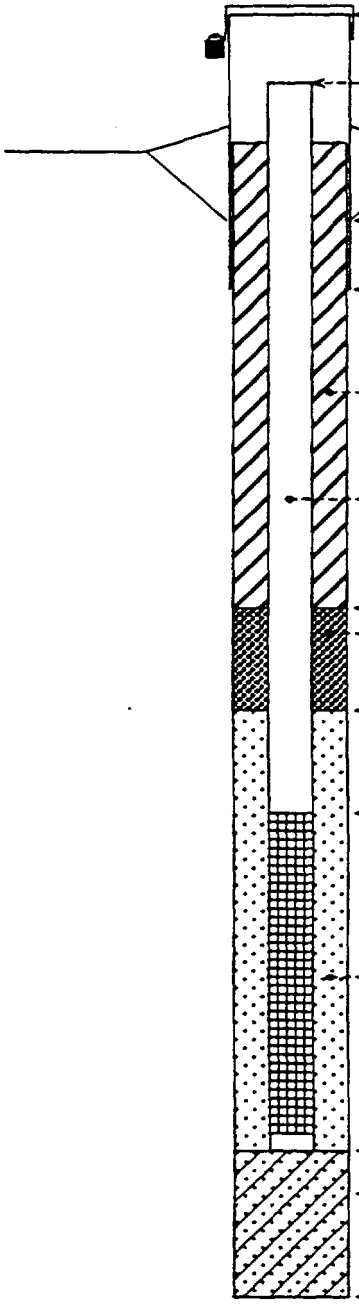
CLASSIFICATION: VISUAL (Modified Burmister),USCS METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1 DATE STARTED: 11/8/89 DATE FINISHED: 11/8/89 DRILLER: Empire Soils Inv. Hamburg, New York FIELD GEOLOGIST: FJC	Dames & Moore Overburden Well Construction	HOLE/WELL NO.: 0401 SURFACE ELEVATION: 1,416.79 NORTHING: 892,874.32 EASTING: 480,501.55
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: EAST OF TRAILER J SSWMU Locale: 4



Top of outer casing elevation: 1,420.62 feet MSL
Outer casing stick-up: 2.2 feet
Top of riser elevation: 1,418.42 feet MSL
Riser pipe stick-up: 1.63 feet
Ground surface elevation: 1,416.79 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.8 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 1.5 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-5', 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 2 feet
Type of seal: bentonite pellets (1/4" dia)
Volume of seal: 0.7 cu.ft.
Depth of sand pack: 4 feet

Depth of top of screen: 6 feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-10'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 3.0 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 16.42 feet
Depth of bottom of sand pack: 16.42 feet
Backfill:
(May or may not be present)
Depth of borehole: 17 feet

SHEET 1 OF: 1 DATE STARTED: 11/9/89 DATE FINISHED: 11/10/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0402 SURFACE ELEVATION: 1,416.96 NORTHING 892,668.86 EASTING 480,504.59
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: EAST OF TRAILER J SSWMU Locale: 4

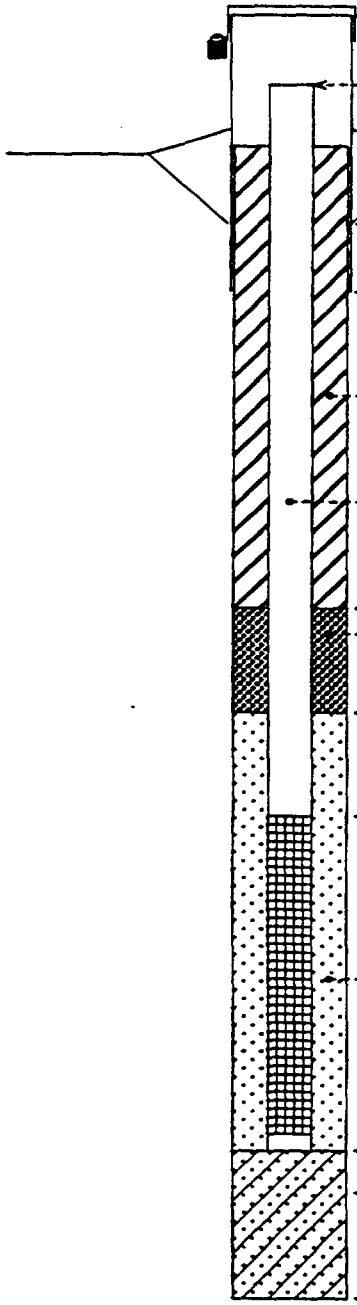
DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
								Medium brown, silty GRAVEL and SAND. (GP)
5								Medium brown, SAND and GRAVEL, some silt. (SM)
10								
15								Medium brown, clayey SILT, trace gravel and sand. (ML)
								Moist, medium brown to dark gray, SILT, some clay, trace gravel, trace fine sand. (ML)
	24/24	SS-1	5	8	10	12		Dark gray, SILT, some clay, trace gravel. (ML)
20	24/22	SS-2	1	4	7	10		
	24/23	SS-3	2	7	16	23		
25	24/20	SS-4	4	4	7	14		Dark gray, fine SAND, trace silt. (SP) Dark gray, GRAVEL and SAND, trace silt. (GP) Dark gray, fine SAND, some silt, little gravel. (SP)
	24/9	SS-5	10	27	20	20		
	24/18	SS-6	16	10	32	37		Dark gray, SILT and CLAY, trace gravel. (ML/CL) Dark gray, SAND, little silt. (SM) Dark gray, SILT and CLAY, trace gravel. (ML/CL)
30	24/23	SS-7	2	6	12	18		
	24/24	SS-8	2	6	7	7		
35	24/20	SS-9	2	8	11	20		
								Augered to 34 ft. / Sampled from 18 to 36 ft.. The water level was measured at 28.25 ft. b.g.s.- While the bottom of the augers were 30.0 ft. b.g.s.. No radiation detected above background by R/S.

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84
See 0401 for sampling 0-18 feet

SHEET 1 OF 1		HOLE/WELL NO.:	0402
DATE STARTED:	11/9/89	SURFACE ELEVATION:	1,418.98
DATE FINISHED:	11/10/89		
DRILLER:	Empire Soils Inv.		
	Hamburg, New York	NORTHING:	892,668.86
FIELD GEOLOGIST:	FJC	EASTING:	480,504.59
PROJECT:	WVDP DOE/RCRA wells	LOCATION:	EAST OF TRAILER J
JOB NUMBER:	10805-410-023	SSWMU Locale:	4

Dames & Moore
Overburden
Well Construction



Top of outer casing elevation: 1,419.43 feet MSL
Outer casing stick-up: 2.47 feet
Top of riser elevation: 1,419.20 feet MSL
Riser pipe stick-up: 2.24 feet
Ground surface elevation: 1,418.98 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.53 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 4.32 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 2-10', 2-3'
I.D. of riser pipe: 2 inches
Depth of seal: 19.7 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.5 cu.ft.
Depth of sand pack: 22 feet

Depth of top of screen: 24 feet feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 3.4 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 29.42 feet
Depth of bottom of sand pack: 34 feet
Backfill: Ottawa flintshot 3.0 (fine)
(May or may not be present)
Depth of borehole: 34 feet

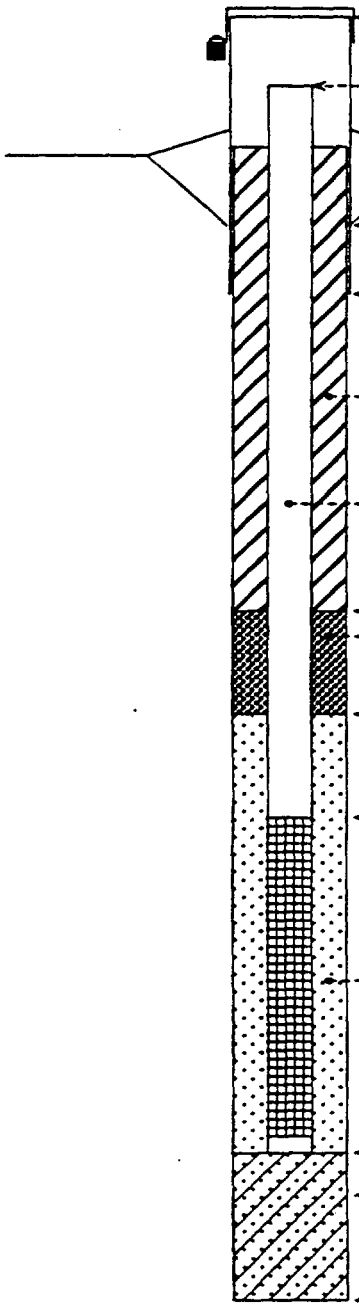
SHEET 1 OF: 1 DATE STARTED: 11/30/89 DATE FINISHED: 12/1/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: JTB	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0404 SURFACE ELEVATION: 1,417.20 NORTHING 892,837.80 EASTING 480,423.46
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: SOUTHWEST OF CTS SSWMU Locale: 4

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
								Damp, brown to red, SILT, trace fine sand and clay, trace angular gravel, some orange mottling. (ML)
5								Wet to saturated, brown, SILT and fine to coarse GRAVEL, trace fine to coarse sand, orange mottling. (GM)
10								Wet, brown, SILT and fine to medium angular GRAVEL, trace fine to medium sand, trace clay. (GM)
15								Damp, brown, SILT, trace sand, oxidized. (ML)
								Damp, gray, SILT, little fine to medium angular to subangular gravel, trace clay, unweathered. (ML)
								Wet, gray, SILT and CLAY, trace subangular gravel. (ML/CL)
20								Wet, gray, silty CLAY, trace fine gravel and sand. (CL)
								Wet, gray, fine SAND, some silt, trace clay. (SM)
25	24/22	SS-1	7	7	9	9		Saturated, gray, SILT, little fine sand, trace clay. (ML)
30	24/21	SS-2	9	8	12	13		Saturated, gray, SILT, little clay, trace very fine sand, trace fine to medium subangular gravel. (ML)
35	24/24	SS-3	5	8	12	17		
								Augered to 36.5 ft. Sampled from 25-27, 30-32, 34-36 ft. The water level was measured at 12.5 ft. b.g.s.- While the bottom of the augers were 30.0 ft. b.g.s.. No radiation detected above background by R/S.

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84
See 0403 & 0410 for additional details

SHEET 1 OF 1 DATE STARTED: 11/30/89 DATE FINISHED: 12/1/89 DRILLER: Empire Soils Inv. Hamburg, New York FIELD GEOLOGIST: JTB	Dames & Moore Overburden Well Construction	HOLE/WELL NO.: 0404 SURFACE ELEVATION: 1,417.20 NORTHING: 892,837.80 EASTING: 480,423.46
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: SOUTHWEST OF CTS SSWMU Locale: 4



Top of outer casing elevation: 1,419.55 feet MSL
Outer casing stick-up: 2.35 feet
Top of riser elevation: 1,418.89 feet MSL
Riser pipe stick-up: 1.69 feet
Ground surface elevation: 1,417.20 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.65 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 5.76 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 2-10', 1-5', 1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 22.0 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 24.0 feet

Depth of top of screen: 26.5 feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-10'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.76 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 36.92 feet
Depth of bottom of sand pack: 37.0 feet
Backfill:
(May or may not be present)
Depth of borehole: 37.0 feet

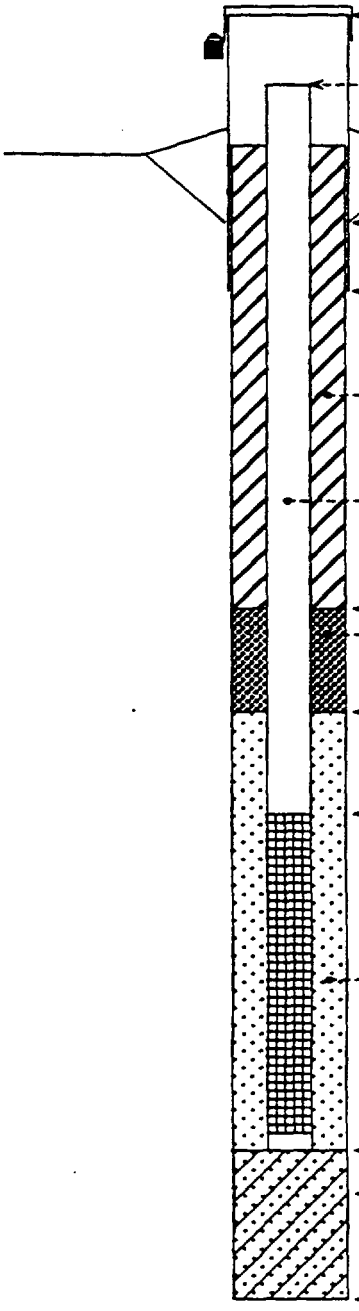
SHEET 1 OF: 1 DATE STARTED: 1/19/90 DATE FINISHED: 1/23/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: 0706 SURFACE ELEVATION: 1,406.81 NORTHING 893,478.76 EASTING 480,245.61
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: S. CPC STORAGE AREA SSWMU Locale: 7

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6 12 / 18	BLOWS ON SAMPLER 6 / 12 18 / 24	LITHOLOGY	DESCRIPTION / NOTES
						Grass, organic, TOPSOIL. (OL)
						Dry, reddish-brown, SILT and fine to medium GRAVEL, little fine sand, trace clay, green mottling. (GM)
5						Moist, reddish-brown, silty GRAVEL to SILT and GRAVEL, little fine sand, trace clay, mottled, loose. (GM)
						Moist, brown, SILT, trace to little subangular gravel, trace sand, mottled. (GM/ML)
10						Moist, brown, SILT, little clay, trace fine to medium subangular gravel, trace fine sand. (ML)
						Moist to wet, gray, SILT and CLAY, trace fine to medium subangular gravel. (CL)
15						AUGERED TO 13.0 FT. NO SAMPLES TAKEN - DESCRIPTION FROM 0701US THE WATER LEVEL WAS MEASURED AT 8.2 FT.B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 13.0 FT. B.G.S.. NO RADIATON WAS DETECTED ABOVE BACKGROUND BY R/S
20						
25						
30						
35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1	Dames & Moore Overburden Well Construction	HOLE/WELL NO.: 0706
DATE STARTED: 1/19/90		SURFACE ELEVATION: 1,406.81
DATE FINISHED: 1/23/90		
DRILLER: Empire Soils Inv. Hamburg, New York		NORTHING: 893,478.76
FIELD GEOLOGIST: FJC		EASTING: 480,245.61
PROJECT: WVDP DOE/RCRA wells		LOCATION: S. CPC STORAGE AREA
JOB NUMBER: 10805-410-023		SSWMU Locale: 7



Top of outer casing elevation: 1,409.46 feet MSL
Outer casing stick-up: 2.85 feet
Top of riser elevation: 1,408.81 feet MSL
Riser pipe stick-up: 2.0 feet
Ground surface elevation: 1,406.81 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.35 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement/bentonite
Volume of backfill: 1.5 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-5',1-3'
I.D. of riser pipe: 2 inches
Depth of seal: 2.5 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 0.67 cu.ft.
Depth of sand pack: 4.50 feet

Depth of top of screen: 6.0 feet
Screen: S.S. Johnson Channel Pack, 10 slot
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.1 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 11.42 feet
Depth of bottom of sand pack: 11.42 feet
Backfill: NATURAL DEPOSIT
(May or may not be present)
Depth of borehole: 13.0 feet

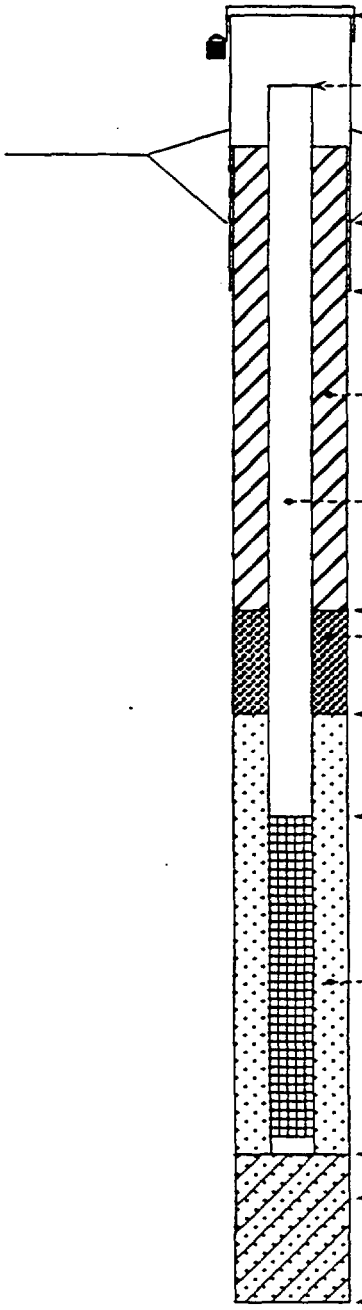
SHEET 1 OF: 1 DATE STARTED: 3/26/90 DATE FINISHED: 3/26/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	BORING LOG DAMES & MOORE	HOLE/WELL NO.: NB-1S SURFACE ELEVATION: 1,444.36 NORTHING 892,479.66 EASTING 479,990.58
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: W. OF MAIN PARKING LOT SSWMU Locale: 3

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER 0 / 6	6 / 12	12 / 18	18 / 24	LITHOLOGY	DESCRIPTION / NOTES
	24/20	SS-1	3	5	4	6		Moist, brown, SILT, little fine sand, trace fine to medium subrounded gravel, roots. (ML)
	24/15	SS-2	10	23	26	19		Moist, dark brown, SILT, some brown very fine sand, little medium to coarse angular gravel. (ML/SM)
5	24/21	SS-3	12	15	17	15		Damp, light brown, fine SAND, some medium to coarse angular gravel, some silt, trace clay. (SM/GM)
	24/10	SS-4	91	28	18	24		Damp, light brown, medium to coarse angular GRAVEL, some brown silt, some fine to medium brown sand, trace clay. (GM)
	24/13	SS-5	8	8	2	77		
10	24/18	SS-6	76	13	23	54		Saturated, brown, medium to coarse angular GRAVEL, some brown silt, some fine to medium brown sand, trace clay. (GM)
	24/10	SS-7	24	100	-	-		Dry, light brown, CLAY and SILT. (CL)
15	24/10	SS-8	15	100	-	-		Dry, brown, medium to coarse angular GRAVEL, some fine sand, some silt, trace clay. (Weathered bedrock).
	24/9	SS-9	89	100	-	-		Dry, broken SHALE fragments to Saturated, brownish-gray, CLAY, some angular shale fragments.
								SHALE bedrock, fractured and broken.
20								AUGERED TO 16 FT. SAMPLED TO 18 FT. WATER LEVEL AT COMPLETION OF WELL INSTALLATION WAS 10.6 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.
25								
30								
35								

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84,

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	NB-1S
DATE STARTED:	3/26/90		SURFACE ELEVATION:	1,444.36
DATE FINISHED:	3/26/90			
DRILLER:	Empire Soils Inv. Hamburg, New York		NORTHING:	892,479.66
FIELD GEOLOGIST:	FJC		EASTING:	479,990.58
PROJECT:	WVDP DOE/RCRA wells		LOCATION:	W. OF MAIN PARKING LOT
JOB NUMBER:	10805-410-023		SSWMU Locale:	3



Top of outer casing elevation: 1,446.81 feet MSL
Outer casing stick-up: 2.45 feet
Top of riser elevation: 1,446.41 feet MSL
Riser pipe stick-up: 2.05 feet
Ground surface elevation: 1,444.36 feet MSL
Type of surface seal: quickrete
Depth of surface seal: 4 inches

Depth of outer casing: 2.55 feet
I.D. of outer casing: 6 inches
Type of outer casing: steel
Type of backfill: cement-bentonite
Volume of backfill: 1.44 cu.ft.
Borehole diameter: 8 inches
Type of riser: 304 s.s. flushjoint, sch.5
Section lengths (from base) 1-10'
I.D. of riser pipe: 2 inches
Depth of seal: 4 feet
Type of seal: bentonite pellets (1/4" dia.)
Volume of seal: 1.3 cu.ft.
Depth of sand pack: 6 feet

Depth of top of screen: 8 feet
Screen: S.S. Johnson channel pack, 10 slot
Section lengths (from base) 1-5'
I.D. of screen: 2 inches

Type of sand pack: Ottawa flintshot 3.0 (fine)
Volume of sand pack: 2.13 cu.ft.

Depth to bottom of screen with attached 5 inch sump: 13.42 feet
Depth of bottom of sand pack: 14 feet
Backfill: BENTONITE PELLETS (1/4"dia)
(May or may not be present)
Depth of borehole: 18 feet

BORING B-86-05

SURFACE ELEVATION: 1390.84

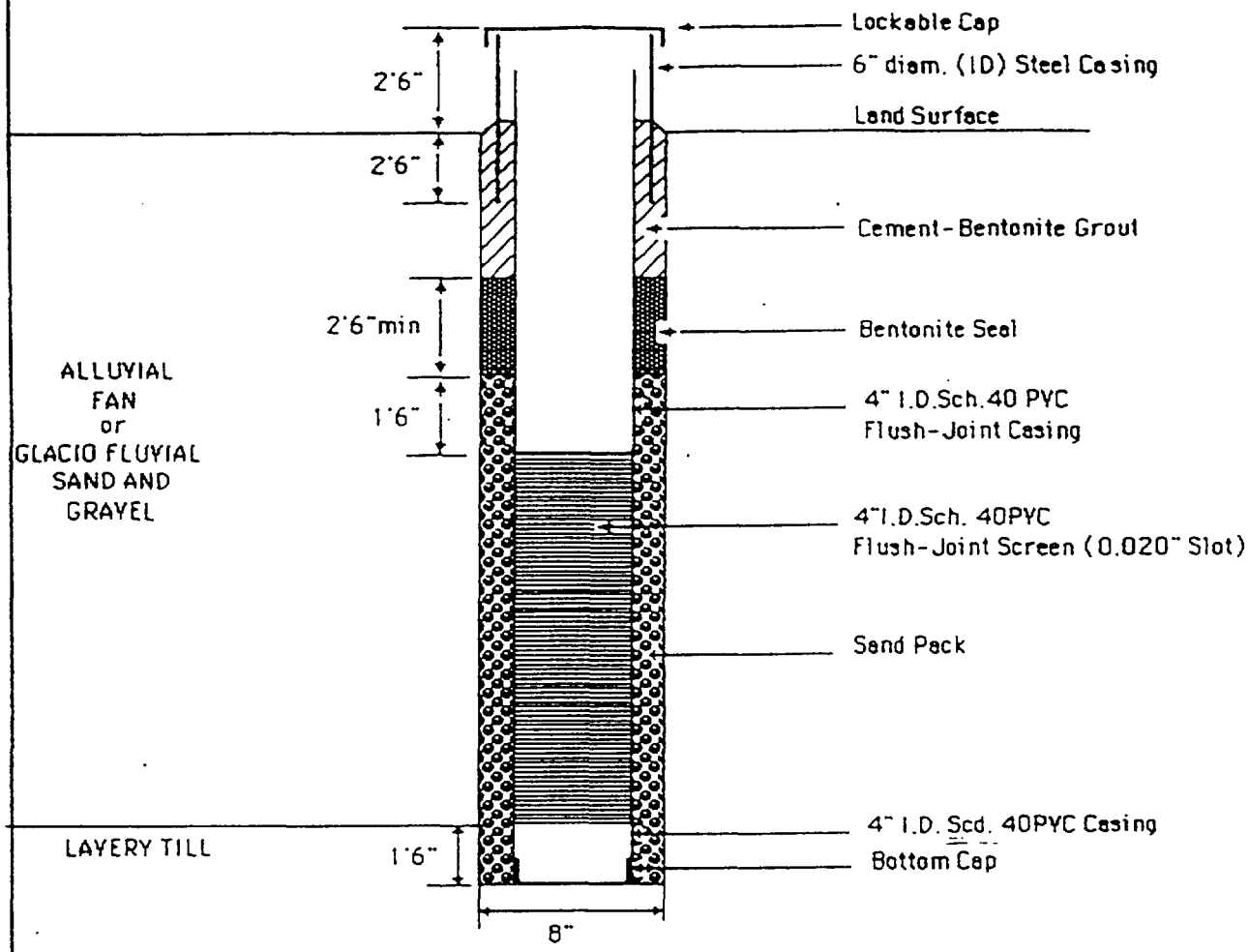
COORDINATES. E 481.289 98
N 892.826.86

SAMPLING BLOW COUNT	SAMPLE NO. & TYPE	DEPTH IN FEET	ELEV IN FEET	SOIL SAMPLING	ROCK CORING	SYMBOL	DESCRIPTIONS
22	1 A	0	1390	◪		ML/GM	LIGHT BROWN SILT AND FINE TO MEDIUM GRAVEL. TRACE ORGANICS. MOIST. GRADING TO GRAVEL. FINE SAND AND SILT. SLIGHTLY MOIST.
32	2 A	2		◪			GRAY SILT. SOME FINE GRAVEL. MODERATELY STIFF. GRADING TO BROWN GRAVEL. FINE SAND AND SILT.
24	3 A	4		◪		GW	BROWN FINE TO COARSE GRAVEL AND COBBLES. LITTLE SAND. LITTLE SILT. MOIST TO WET.
37	4 A	6		◪			GRADING TO WET.
34	5 A	8		◪		GM/GP	FINE GRAVEL. SOME FINE SAND. SOME SILT. GRADING TO FINE TO COARSE GRAVEL. SOME COBBLES. TRACE SILT. WET.
64	6 A	10	1380	◪		CW	FINE TO MEDIUM SAND. TRACE TO LITTLE SILT. WET
		12					GRAY SILTY CLAY/TILL

BORING COMPLETED ON 7/13/86

DAMES & MOORE
FIGURE A-4

West Valley Nuclear Services Co. Inc.
West Valley, New York



NOTE: Wells were developed by pumping with a centrifugal pump. Development of the wells continued until the discharge was generally free of sand and silt sized particles.

SUBJECT TYPICAL MONITORING WELL	NUMBER FIGURE 2	PAGE 1 OF 1
INSTALLATION	PREPARED BY RAPennifill	DATE 4-18-86

BORING B-86-06

SURFACE ELEVATION: 1397.

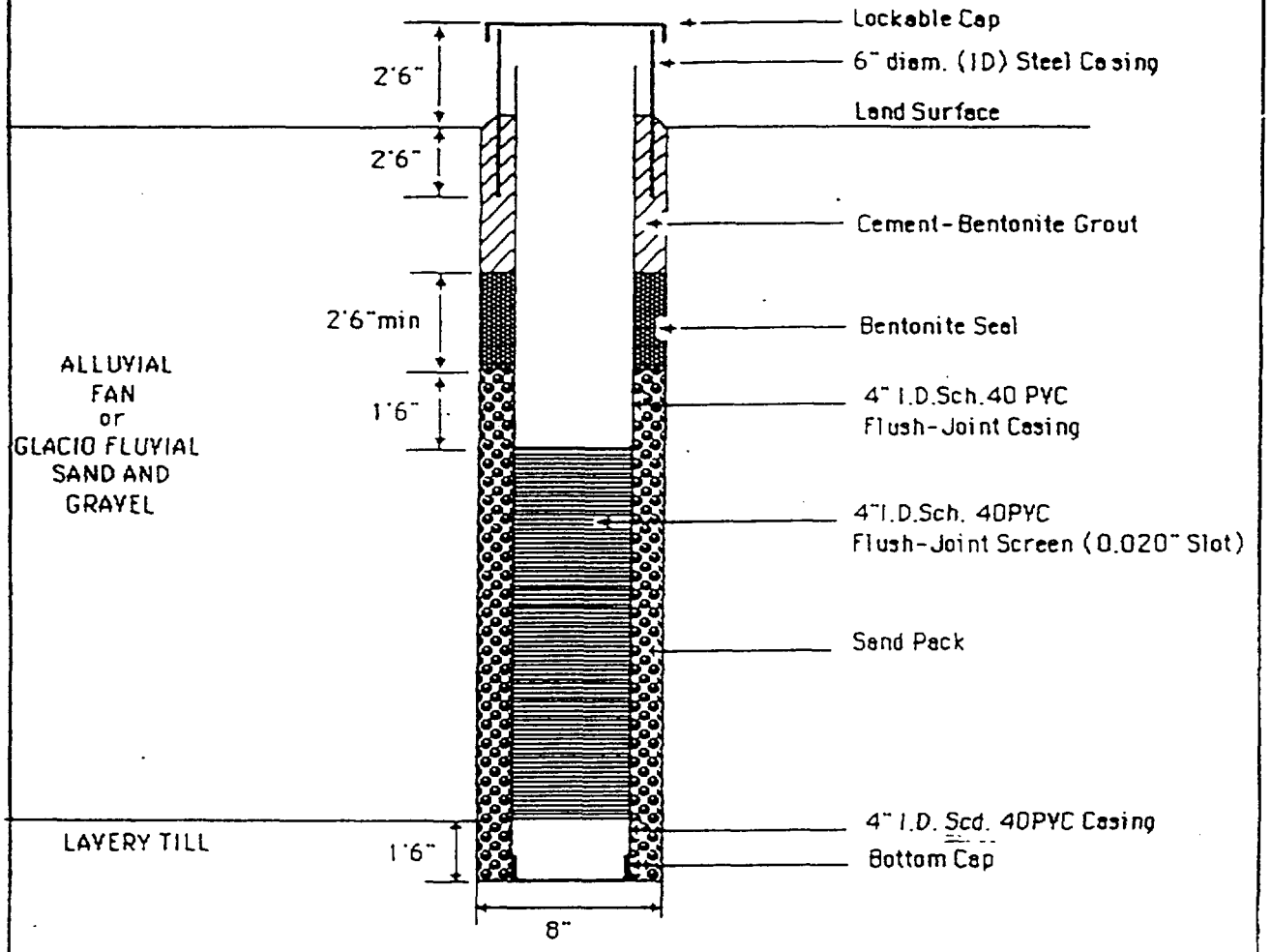
COORDINATES: E 481.164 56
N 892.659 93

SAMPLING		DEPTH IN FEET	ELEV. IN FEET	SOIL SAMPLING	ROCK CORING	SYMBOL	DESCRIPTIONS
BLOW COUNT	SAMPLE NO. & TYPE						
8	1 .A	0		◪		GM	BROWN FINE TO MEDIUM GRAVEL. SOME SAND. SOME SILT. SLIGHTLY MOIST
15	2 .A	2		◪		ML SM	TAN SILT. SOME FINE SAND. SOME COARSE GRAVEL. MOIST.
30	3 .A	4		◪		GW	GRAY FINE TO MEDIUM GRAVEL. SOME SAND. WET. GRADING WITH TRACE SILT. MOIST.
14	4 .A	6		◪			WET GRADING TO MOIST.
			1390			SM GM	FINE SAND AND SILT. SOME COARSE GRAVEL. WET GRADING TO MOIST
27	5 .A	8		◪		GW SW	GRAVEL AND SAND. LITTLE TO TRACE SILT. WET
45	6 .A	10		◪			GRADING MOIST TO WET. MODERATELY DENSE
38	7 .A	12		◪		SM	BROWN FINE SAND AND SILT. SOME FINE GRAVEL. SLIGHTLY MOIST
		14					GRAY SILTY CLAY/TILL.

BORING COMPLETED ON 7/17/86

DAMES & MOORE
FIGURE A-5

West Valley Nuclear Services Co. Inc.
West Valley, New York



NOTE: Wells were developed by pumping with a centrifugal pump. Development of the wells continued until the discharge was generally free of sand and silt sized particles.

SUBJECT TYPICAL MONITORING WELL INSTALLATION	NUMBER FIGURE 2	PAGE 1 OF 1
	PREPARED BY RAPennifill	DATE 4-18-86

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Appendix C

Groundwater Contamination Indicator Parameter Data

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MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Till-Sand							
WNW0202	Cond	03/18/91		3220.00	µmhos/cm	91-01952	
WNW0202	Cond	04/25/91		2320.00	µmhos/cm	91-03044	
WNW0202	Cond	05/22/91		1492.00	µmhos/cm	91-04092	
WNW0202	Cond	07/17/91		1825.00	µmhos/cm	91-06244	
WNW0202	Cond	08/28/91		1200.00	µmhos/cm	91-07550	
WNW0202	Cond	08/28/91		1168.00	µmhos/cm	91-07550	
WNW0202	Cond	10/28/91		1107.00	µmhos/cm	91-09629	
WNW0202	Cond	10/28/91		1460.00	µmhos/cm	91-09629	
WNW0202	Cond	11/25/91		1483.00	µmhos/cm	91-11167	
WNW0202	Cond	11/25/91		873.00	µmhos/cm	91-11167	
WNW0202	Cond	01/20/92		1380.00	µmhos/cm	92-00055	
WNW0202	Cond	01/20/92		2490.00	µmhos/cm	92-00055	
WNW0202	Cond	03/02/92		1254.00	µmhos/cm	92-01860	
WNW0202	Cond	03/02/92		1177.00	µmhos/cm	92-01860	
WNW0202	Cond	04/13/92		1174.00	µmhos/cm	92-03993	
WNW0202	Cond	07/20/92		1091.00	µmhos/cm	92-06715	
WNW0202	Cond	07/20/92		1082.00	µmhos/cm	92-06715	
WNW0202	Cond	08/31/92		969.00	µmhos/cm	92-09210	
WNW0202	Cond	10/12/92		990.00	µmhos/cm	92-10839	
WNW0202	Cond	11/09/92		763.00	µmhos/cm	92-11671	
WNW0202	Cond	12/07/92		789.00	µmhos/cm	92-13286	
WNW0202	Cond	01/20/93		3280.00	µmhos/cm	93-00329	
WNW0202	Cond	02/25/93		1001.00	µmhos/cm	93-01968	
WNW0202	Cond	04/28/93		2950.00	µmhos/cm	93-03854	
WNW0202	Cond	06/02/93		539.00	µmhos/cm	93-05797	
WNW0202	Cond	07/20/93		501.00	µmhos/cm	93-07163	
WNW0202	Cond	11/09/93		467.00	µmhos/cm	93-11825	
WNW0202	Cond	02/21/94		330.00	µmhos/cm	94-01185	
WNW0202	Cond	05/19/94		454.00	µmhos/cm	94-03507	
WNW0202	Cond	07/12/94		324.00	µmhos/cm	94-06647	
WNW0202	NPOC	04/25/91		3.20	mg/L	91-03047	
WNW0202	NPOC	05/22/91		2.00	mg/L	91-04096	
WNW0202	NPOC	07/17/91		2.10	mg/L	91-06248	
WNW0202	NPOC	08/29/91		2.80	mg/L	91-07554	
WNW0202	NPOC	10/28/91	ND < 1.00	1.00	mg/L	91-09724	
WNW0202	NPOC	10/28/91	ND < 1.00	1.00	mg/L	91-09632	
WNW0202	NPOC	11/25/91		2.60	mg/L	91-11171	J
WNW0202	NPOC	01/20/92		1.20	mg/L	92-00056	
WNW0202	NPOC	03/02/92		1.20	mg/L	92-01861	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	NPOC	04/13/92		0.80	mg/L	92-03994	
WNW0202	NPOC	07/20/92		1.00	mg/L	92-06716	
WNW0202	NPOC	08/31/92		0.80	mg/L	92-09211	
WNW0202	NPOC	10/12/92		0.90	mg/L	92-10840	
WNW0202	NPOC	11/09/92		0.80	mg/L	92-11672	
WNW0202	NPOC	12/07/92		0.80	mg/L	92-13287	
WNW0202	NPOC	01/18/93		0.70	mg/L	93-00330	
WNW0202	NPOC	01/18/93		0.70	mg/L	93-00330	
WNW0202	NPOC	02/25/93		0.90	mg/L	93-01969	
WNW0202	NPOC	04/26/93		0.70	mg/L	93-03855	
WNW0202	NPOC	06/02/93		0.80	mg/L	93-05798	
WNW0202	NPOC	06/02/93		0.80	mg/L	93-05798	
WNW0202	NPOC	07/20/93		1.00	mg/L	93-07164	
WNW0202	NPOC	07/20/93		0.90	mg/L	93-07164	
WNW0202	NPOC	11/09/93		0.80	mg/L	93-11828	
WNW0202	NPOC	02/21/94		0.70	mg/L	94-01186	
WNW0202	NPOC	05/19/94		0.80	mg/L	94-03508	
WNW0202	NPOC	07/12/94		1.00	mg/L	94-06648	
WNW0202	TOX	04/25/91		25.00	µg/L	91-03047	
WNW0202	TOX	05/22/91		26.00	µg/L	91-04096	J
WNW0202	TOX	07/17/91		22.00	µg/L	91-06248	
WNW0202	TOX	08/29/91	ND<5.00	5.00	µg/L	91-07554	
WNW0202	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09632	
WNW0202	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09724	
WNW0202	TOX	11/25/91	ND<1.00	1.00	µg/L	91-11176	
WNW0202	TOX	11/25/91	ND<5.00	5.00	µg/L	91-11171	
WNW0202	TOX	01/20/92		8.70	µg/L	92-00056	
WNW0202	TOX	03/02/92	ND<1.00	1.00	µg/L	92-01868	
WNW0202	TOX	03/02/92	ND<4.00	4.00	µg/L	92-01861	
WNW0202	TOX	04/13/92		4.20	µg/L	92-03994	
WNW0202	TOX	07/20/92	ND<5.00	5.00	µg/L	92-07874	
WNW0202	TOX	07/24/92	ND<1.00	1.00	µg/L	92-06723	
WNW0202	TOX	08/31/92	ND<4.00	4.00	µg/L	92-09211	
WNW0202	TOX	10/12/92	ND<4.00	4.00	µg/L	92-10840	
WNW0202	TOX	11/09/92	ND<4.00	4.00	µg/L	92-11672	
WNW0202	TOX	12/07/92		5.10	µg/L	92-13287	
WNW0202	TOX	12/09/92	ND<1.00	1.00	µg/L	92-13294	
WNW0202	TOX	01/18/93		4.40	µg/L	93-00330	
WNW0202	TOX	02/25/93		4.80	µg/L	93-01969	
WNW0202	TOX	04/26/93		9.40	µg/L	93-03855	
WNW0202	TOX	06/02/93	ND<2.00	2.00	µg/L	93-05798	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	TOX	07/20/93	ND < 2.00	2.00	µg/L	93-07164	
WNW0202	TOX	11/09/93	ND < 2.00	2.00	µg/L	93-11828	
WNW0202	TOX	11/11/93	ND < 1.00	1.00	µg/L	93-11843	
WNW0202	TOX	02/21/94		2.50	µg/L	94-01186	
WNW0202	TOX	05/19/94		5.60	µg/L	94-03508	
WNW0202	TOX	05/19/94	ND < 1.00	1.00	µg/L	94-03518	UJ
WNW0202	TOX	07/12/94		3.60	µg/L	94-06648	
WNW0202	pH	03/18/91		12.61	N/A	91-01952	
WNW0202	pH	04/25/91		12.12	N/A	91-03044	
WNW0202	pH	05/22/91		11.89	N/A	91-04092	
WNW0202	pH	07/17/91		11.96	N/A	91-06244	
WNW0202	pH	08/28/91		11.95	N/A	91-07550	
WNW0202	pH	08/28/91		11.79	N/A	91-07550	
WNW0202	pH	10/28/91		11.59	N/A	91-09629	
WNW0202	pH	10/28/91		11.47	N/A	91-09629	
WNW0202	pH	11/25/91		11.95	N/A	91-11167	
WNW0202	pH	11/25/91		12.25	N/A	91-11167	
WNW0202	pH	01/20/92		11.82	N/A	92-00055	
WNW0202	pH	01/20/92		11.63	N/A	92-00055	
WNW0202	pH	03/02/92		10.54	N/A	92-01860	
WNW0202	pH	03/02/92		10.85	N/A	92-01860	
WNW0202	pH	04/13/92		11.59	N/A	92-03993	
WNW0202	pH	07/20/92		11.63	N/A	92-06715	
WNW0202	pH	07/20/92		11.47	N/A	92-06715	
WNW0202	pH	08/31/92		7.37	N/A	92-09210	
WNW0202	pH	10/12/92		10.59	N/A	92-10839	
WNW0202	pH	11/09/92		11.76	N/A	92-11671	
WNW0202	pH	12/07/92		11.45	N/A	92-13286	
WNW0202	pH	01/20/93		11.48	N/A	93-00329	
WNW0202	pH	02/25/93		11.31	N/A	93-01968	
WNW0202	pH	04/28/93		11.93	N/A	93-03854	
WNW0202	pH	06/02/93		10.52	N/A	93-05797	
WNW0202	pH	07/20/93		11.07	N/A	93-07163	
WNW0202	pH	11/09/93		11.29	N/A	93-11825	
WNW0202	pH	11/09/93	ND < 10.00	10.00	N/A	93-11839	
WNW0202	pH	11/09/93	ND < 10.00	10.00	N/A	93-11839	
WNW0202	pH	02/21/94		10.83	N/A	94-01185	
WNW0202	pH	05/19/94	ND < 10.00	10.00	N/A	94-03516	
WNW0202	pH	05/19/94		11.52	N/A	94-03507	
WNW0202	pH	05/19/94	ND < 10.00	10.00	N/A	94-03516	
WNW0202	pH	07/12/94		11.03	N/A	94-06647	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	Cond	03/15/91		455.00	µmhos/cm	91-01926	
WNW0204	Cond	03/15/91		446.00	µmhos/cm	91-01926	
WNW0204	Cond	04/22/91		471.00	µmhos/cm	91-02872	
WNW0204	Cond	04/22/91		465.00	µmhos/cm	91-02872	
WNW0204	Cond	05/22/91		493.00	µmhos/cm	91-04038	
WNW0204	Cond	07/15/91		481.00	µmhos/cm	91-06163	
WNW0204	Cond	07/15/91		490.00	µmhos/cm	91-06163	
WNW0204	Cond	08/26/91		503.00	µmhos/cm	91-07560	
WNW0204	Cond	08/26/91		500.00	µmhos/cm	91-07560	
WNW0204	Cond	10/28/91		517.00	µmhos/cm	91-09637	
WNW0204	Cond	10/28/91		521.00	µmhos/cm	91-09637	
WNW0204	Cond	11/26/91		528.00	µmhos/cm	91-11191	
WNW0204	Cond	11/26/91		530.00	µmhos/cm	91-11191	
WNW0204	Cond	01/20/92		534.00	µmhos/cm	92-00063	
WNW0204	Cond	01/20/92		529.00	µmhos/cm	92-00063	
WNW0204	Cond	03/02/92		534.00	µmhos/cm	92-01882	
WNW0204	Cond	03/02/92		554.00	µmhos/cm	92-01882	
WNW0204	Cond	04/13/92		549.00	µmhos/cm	92-04001	
WNW0204	Cond	04/13/92		540.00	µmhos/cm	92-04001	
WNW0204	Cond	07/20/92		531.00	µmhos/cm	92-06741	
WNW0204	Cond	07/20/92		523.00	µmhos/cm	92-06741	
WNW0204	Cond	08/31/92		565.00	µmhos/cm	92-09218	
WNW0204	Cond	08/31/92		554.00	µmhos/cm	92-09218	
WNW0204	Cond	10/12/92		580.00	µmhos/cm	92-10847	
WNW0204	Cond	10/12/92		589.00	µmhos/cm	92-10847	
WNW0204	Cond	11/09/92		598.00	µmhos/cm	92-11679	
WNW0204	Cond	11/09/92		594.00	µmhos/cm	92-11679	
WNW0204	Cond	12/07/92		607.00	µmhos/cm	92-13312	
WNW0204	Cond	12/07/92		583.00	µmhos/cm	92-13312	
WNW0204	Cond	01/18/93		578.00	µmhos/cm	93-00337	
WNW0204	Cond	01/18/93		518.00	µmhos/cm	93-00337	
WNW0204	Cond	02/24/93		624.00	µmhos/cm	93-01988	
WNW0204	Cond	02/24/93		619.00	µmhos/cm	93-01988	
WNW0204	Cond	04/26/93		590.00	µmhos/cm	93-03862	
WNW0204	Cond	04/26/93		580.00	µmhos/cm	93-03862	
WNW0204	Cond	06/02/93		623.00	µmhos/cm	93-05805	
WNW0204	Cond	06/02/93		609.00	µmhos/cm	93-05805	
WNW0204	Cond	07/19/93		618.00	µmhos/cm	93-07171	
WNW0204	Cond	07/19/93		604.00	µmhos/cm	93-07171	
WNW0204	Cond	11/09/93		637.00	µmhos/cm	93-11774	
WNW0204	Cond	11/09/93		640.00	µmhos/cm	93-11774	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	Cond	02/21/94		544.00	µmhos/cm	94-01191	
WNW0204	Cond	02/21/94		639.00	µmhos/cm	94-01191	
WNW0204	Cond	05/12/94		615.00	µmhos/cm	94-03539	
WNW0204	Cond	05/12/94		605.00	µmhos/cm	94-03539	
WNW0204	Cond	07/05/94		616.00	µmhos/cm	94-06654	
WNW0204	Cond	07/05/94		620.00	µmhos/cm	94-06654	
WNW0204	NPOC	04/22/91		1.50	mg/L	91-02875	
WNW0204	NPOC	05/22/91		1.10	mg/L	91-04265	
WNW0204	NPOC	05/22/91		3.10	mg/L	91-04042	
WNW0204	NPOC	07/15/91		5.70	mg/L	91-06167	
WNW0204	NPOC	08/26/91		1.10	mg/L	91-07564	
WNW0204	NPOC	10/28/91		4.90	mg/L	91-09640	
WNW0204	NPOC	11/26/91		1.80	mg/L	91-11195	F
WNW0204	NPOC	01/20/92		0.60	mg/L	92-00404	
WNW0204	NPOC	01/20/92		0.60	mg/L	92-00064	
WNW0204	NPOC	03/02/92		0.50	mg/L	92-01883	
WNW0204	NPOC	04/13/92		0.40	mg/L	92-04002	
WNW0204	NPOC	07/20/92		0.50	mg/L	92-06742	
WNW0204	NPOC	08/31/92		0.50	mg/L	92-09219	
WNW0204	NPOC	10/12/92		0.60	mg/L	92-10848	
WNW0204	NPOC	11/09/92		0.50	mg/L	92-11680	
WNW0204	NPOC	12/07/92		0.60	mg/L	92-13313	
WNW0204	NPOC	01/18/93		0.50	mg/L	93-00338	
WNW0204	NPOC	02/24/93		0.70	mg/L	93-01989	
WNW0204	NPOC	04/26/93		0.50	mg/L	93-03863	
WNW0204	NPOC	06/02/93		0.60	mg/L	93-05806	
WNW0204	NPOC	07/19/93		0.70	mg/L	93-07172	
WNW0204	NPOC	07/19/93		0.70	mg/L	93-07247	
WNW0204	NPOC	07/19/93		0.60	mg/L	93-07172	
WNW0204	NPOC	11/09/93		1.00	mg/L	93-11775	
WNW0204	NPOC	02/21/94		0.60	mg/L	94-01192	
WNW0204	NPOC	05/12/94		0.60	mg/L	94-03541	
WNW0204	NPOC	07/05/94		0.60	mg/L	94-06655	
WNW0204	TOX	04/22/91	ND<5.00	5.00	µg/L	91-02875	
WNW0204	TOX	05/22/91		26.00	µg/L	91-04265	J
WNW0204	TOX	05/22/91		29.00	µg/L	91-04042	J
WNW0204	TOX	07/15/91		17.00	µg/L	91-06167	
WNW0204	TOX	08/26/91		16.00	µg/L	91-07564	
WNW0204	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09640	
WNW0204	TOX	11/26/91	ND<5.00	5.00	µg/L	91-11195	
WNW0204	TOX	11/26/91	ND<1.00	1.00	µg/L	91-11201	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	TOX	01/20/92		7.20	µg/L	92-00404	
WNW0204	TOX	01/20/92		6.40	µg/L	92-00064	
WNW0204	TOX	03/02/92		12.00	µg/L	92-01883	
WNW0204	TOX	03/02/92	ND<1.00	1.00	µg/L	92-01890	
WNW0204	TOX	04/13/92		4.80	µg/L	92-04002	
WNW0204	TOX	07/20/92		7.10	µg/L	92-07866	
WNW0204	TOX	07/20/92	ND<1.00	1.00	µg/L	92-06749	UJ
WNW0204	TOX	08/31/92	ND<4.00	4.00	µg/L	92-09219	
WNW0204	TOX	10/12/92	ND<4.00	4.00	µg/L	92-10848	
WNW0204	TOX	11/09/92	ND<4.00	4.00	µg/L	92-11680	
WNW0204	TOX	12/07/92	ND<1.00	1.00	µg/L	92-13320	
WNW0204	TOX	12/07/92		11.00	µg/L	92-13313	
WNW0204	TOX	01/18/93		8.00	µg/L	93-00338	
WNW0204	TOX	02/24/93	ND<2.00	2.00	µg/L	93-01989	
WNW0204	TOX	04/26/93		16.20	µg/L	93-03863	
WNW0204	TOX	06/02/93		5.00	µg/L	93-05806	
WNW0204	TOX	07/19/93		7.20	µg/L	93-07172	
WNW0204	TOX	07/19/93		6.40	µg/L	93-07247	
WNW0204	TOX	11/09/93	ND<2.00	2.00	µg/L	93-11775	
WNW0204	TOX	02/21/94		10.30	µg/L	94-01192	
WNW0204	TOX	05/12/94		15.20	µg/L	94-03541	
WNW0204	TOX	07/05/94		9.40	µg/L	94-06655	
WNW0204	pH	03/15/91		8.95	N/A	91-01926	
WNW0204	pH	03/15/91		8.98	N/A	91-01926	
WNW0204	pH	04/22/91		9.00	N/A	91-02872	
WNW0204	pH	04/22/91		9.16	N/A	91-02872	
WNW0204	pH	05/22/91		8.86	N/A	91-04038	
WNW0204	pH	07/15/91		8.87	N/A	91-06163	
WNW0204	pH	07/15/91		8.80	N/A	91-06163	
WNW0204	pH	08/26/91		8.65	N/A	91-07560	
WNW0204	pH	08/26/91		8.73	N/A	91-07560	
WNW0204	pH	10/28/91		8.47	N/A	91-09637	
WNW0204	pH	10/28/91		8.54	N/A	91-09637	
WNW0204	pH	11/26/91		8.36	N/A	91-11191	
WNW0204	pH	11/26/91		8.44	N/A	91-11191	
WNW0204	pH	01/20/92		8.24	N/A	92-00063	
WNW0204	pH	01/20/92		8.34	N/A	92-00063	
WNW0204	pH	03/02/92		7.72	N/A	92-01882	
WNW0204	pH	03/02/92		7.93	N/A	92-01882	
WNW0204	pH	04/13/92		8.36	N/A	92-04001	
WNW0204	pH	04/13/92		8.43	N/A	92-04001	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	pH	07/20/92		8.39	N/A	92-06741	
WNW0204	pH	07/20/92		8.56	N/A	92-06741	
WNW0204	pH	08/31/92		8.37	N/A	92-09218	
WNW0204	pH	08/31/92		8.46	N/A	92-09218	
WNW0204	pH	10/12/92		7.81	N/A	92-10847	
WNW0204	pH	10/12/92		7.79	N/A	92-10847	
WNW0204	pH	11/09/92		8.33	N/A	92-11679	
WNW0204	pH	11/09/92		8.44	N/A	92-11679	
WNW0204	pH	12/07/92		8.23	N/A	92-13312	
WNW0204	pH	12/07/92		8.03	N/A	92-13312	
WNW0204	pH	01/18/93		8.12	N/A	93-00337	
WNW0204	pH	01/18/93		8.09	N/A	93-00337	
WNW0204	pH	02/24/93		7.73	N/A	93-01988	
WNW0204	pH	02/24/93		7.69	N/A	93-01988	
WNW0204	pH	04/26/93		8.32	N/A	93-03862	
WNW0204	pH	04/26/93		8.44	N/A	93-03862	
WNW0204	pH	06/02/93		7.99	N/A	93-05805	
WNW0204	pH	06/02/93		7.98	N/A	93-05805	
WNW0204	pH	07/19/93		8.05	N/A	93-07171	
WNW0204	pH	07/19/93		8.14	N/A	93-07171	
WNW0204	pH	11/09/93		8.23	N/A	93-11774	
WNW0204	pH	11/09/93		8.30	N/A	93-11774	
WNW0204	pH	02/21/94		8.27	N/A	94-01191	
WNW0204	pH	02/21/94		8.12	N/A	94-01191	
WNW0204	pH	05/12/94		8.50	N/A	94-03539	
WNW0204	pH	05/12/94		8.41	N/A	94-03539	
WNW0204	pH	07/05/94		8.31	N/A	94-06654	
WNW0204	pH	07/05/94		8.21	N/A	94-06654	
WNW0206	Cond	03/15/91		473.00	µmhos/cm	91-01928	
WNW0206	Cond	04/22/91		533.00	µmhos/cm	91-02876	
WNW0206	Cond	04/22/91		555.00	µmhos/cm	91-02876	
WNW0206	Cond	05/22/91		560.00	µmhos/cm	91-04056	
WNW0206	Cond	05/22/91		544.00	µmhos/cm	91-04056	
WNW0206	Cond	07/15/91		521.00	µmhos/cm	91-06173	
WNW0206	Cond	07/15/91		561.00	µmhos/cm	91-06173	
WNW0206	Cond	08/26/91		546.00	µmhos/cm	91-07570	
WNW0206	Cond	08/26/91		564.00	µmhos/cm	91-07570	
WNW0206	Cond	10/28/91		567.00	µmhos/cm	91-09645	
WNW0206	Cond	10/28/91		579.00	µmhos/cm	91-09645	
WNW0206	Cond	11/26/91		588.00	µmhos/cm	91-11214	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0206	Cond	11/26/91		583.00	µmhos/cm	91-11214	
WNW0206	Cond	01/20/92		586.00	µmhos/cm	92-00071	
WNW0206	Cond	01/20/92		568.00	µmhos/cm	92-00071	
WNW0206	Cond	03/02/92		609.00	µmhos/cm	92-01904	
WNW0206	Cond	03/02/92		609.00	µmhos/cm	92-01904	
WNW0206	Cond	04/13/92		604.00	µmhos/cm	92-04009	
WNW0206	Cond	04/13/92		609.00	µmhos/cm	92-04009	
WNW0206	Cond	07/20/92		610.00	µmhos/cm	92-07769	
WNW0206	Cond	07/20/92		597.00	µmhos/cm	92-07769	
WNW0206	Cond	08/31/92		624.00	µmhos/cm	92-09226	
WNW0206	Cond	08/31/92		618.00	µmhos/cm	92-09226	
WNW0206	Cond	10/12/92		620.00	µmhos/cm	92-10855	
WNW0206	Cond	10/12/92		623.00	µmhos/cm	92-10855	
WNW0206	Cond	11/09/92		636.00	µmhos/cm	92-11687	
WNW0206	Cond	11/09/92		626.00	µmhos/cm	92-11687	
WNW0206	Cond	12/07/92		155.00	µmhos/cm	92-13338	
WNW0206	Cond	12/07/92		168.00	µmhos/cm	92-13338	
WNW0206	Cond	01/18/93		642.00	µmhos/cm	93-00345	
WNW0206	Cond	01/18/93		562.00	µmhos/cm	93-00345	
WNW0206	Cond	02/24/93		634.00	µmhos/cm	93-02008	
WNW0206	Cond	02/24/93		648.00	µmhos/cm	93-02008	
WNW0206	Cond	04/26/93		615.00	µmhos/cm	93-03870	
WNW0206	Cond	04/26/93		630.00	µmhos/cm	93-03870	
WNW0206	Cond	06/02/93		630.00	µmhos/cm	93-05813	
WNW0206	Cond	06/02/93		645.00	µmhos/cm	93-05813	
WNW0206	Cond	07/19/93		661.00	µmhos/cm	93-07179	
WNW0206	Cond	07/19/93		669.00	µmhos/cm	93-07179	
WNW0206	Cond	11/09/93		600.00	µmhos/cm	93-11783	
WNW0206	Cond	11/09/93		671.00	µmhos/cm	93-11783	
WNW0206	Cond	02/21/94		706.00	µmhos/cm	94-01197	
WNW0206	Cond	02/21/94		668.00	µmhos/cm	94-01197	
WNW0206	Cond	05/12/94		704.00	µmhos/cm	94-03564	
WNW0206	Cond	05/12/94		718.00	µmhos/cm	94-03564	
WNW0206	Cond	07/05/94		710.00	µmhos/cm	94-06660	
WNW0206	Cond	07/05/94		710.00	µmhos/cm	94-06660	
WNW0206	NPOC	04/22/91		2.20	mg/L	91-02879	
WNW0206	NPOC	05/22/91		2.70	mg/L	91-04060	
WNW0206	NPOC	07/15/91		1.20	mg/L	91-06177	
WNW0206	NPOC	08/26/91	ND < 1.00	1.00	mg/L	91-07574	
WNW0206	NPOC	10/28/91	ND < 1.00	1.00	mg/L	91-09648	
WNW0206	NPOC	11/26/91		2.80	mg/L	91-11219	F

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0206	NPOC	01/20/92		0.80	mg/L	92-00072	
WNW0206	NPOC	03/02/92		0.70	mg/L	92-01905	
WNW0206	NPOC	04/13/92		0.90	mg/L	92-04010	
WNW0206	NPOC	07/20/92		0.70	mg/L	92-07770	
WNW0206	NPOC	08/31/92		0.60	mg/L	92-09227	
WNW0206	NPOC	10/12/92		0.70	mg/L	92-10856	
WNW0206	NPOC	11/09/92		0.60	mg/L	92-11688	
WNW0206	NPOC	12/07/92		0.60	mg/L	92-13339	
WNW0206	NPOC	01/18/93		0.60	mg/L	93-00346	
WNW0206	NPOC	02/24/93		0.70	mg/L	93-02009	
WNW0206	NPOC	04/26/93		0.60	mg/L	93-03871	
WNW0206	NPOC	06/02/93		0.70	mg/L	93-05814	
WNW0206	NPOC	07/19/93		0.60	mg/L	93-07180	
WNW0206	NPOC	07/19/93		0.70	mg/L	93-07180	
WNW0206	NPOC	11/09/93		0.70	mg/L	93-11784	
WNW0206	NPOC	02/21/94		0.60	mg/L	94-01198	
WNW0206	NPOC	05/12/94		0.70	mg/L	94-03565	
WNW0206	NPOC	07/05/94		0.70	mg/L	94-06661	
WNW0206	TOX	04/22/91		16.00	µg/L	91-02879	
WNW0206	TOX	05/22/91		23.00	µg/L	91-04060	J
WNW0206	TOX	07/15/91		34.00	µg/L	91-06177	
WNW0206	TOX	08/26/91		21.00	µg/L	91-07574	
WNW0206	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09648	
WNW0206	TOX	11/26/91	ND<1.00	1.00	µg/L	91-11224	
WNW0206	TOX	11/26/91	ND<5.00	5.00	µg/L	91-11219	
WNW0206	TOX	01/20/92		10.10	µg/L	92-00072	
WNW0206	TOX	03/02/92	ND<1.00	1.00	µg/L	92-01912	
WNW0206	TOX	03/02/92		4.00	µg/L	92-01905	
WNW0206	TOX	04/13/92		4.90	µg/L	92-04010	
WNW0206	TOX	07/20/92	ND<5.00	5.00	µg/L	92-07871	
WNW0206	TOX	07/20/92	ND<1.00	1.00	µg/L	92-07777	UJ
WNW0206	TOX	08/31/92		5.50	µg/L	92-09227	
WNW0206	TOX	10/12/92	ND<4.00	4.00	µg/L	92-10856	
WNW0206	TOX	11/09/92	ND<4.00	4.00	µg/L	92-11688	
WNW0206	TOX	12/07/92		4.40	µg/L	92-13339	
WNW0206	TOX	12/07/92	ND<1.00	1.00	µg/L	92-13346	
WNW0206	TOX	01/18/93		9.70	µg/L	93-00346	
WNW0206	TOX	02/24/93		7.90	µg/L	93-02009	
WNW0206	TOX	04/26/93	ND<4.00	4.00	µg/L	93-03871	
WNW0206	TOX	06/02/93	ND<4.00	4.00	µg/L	93-05814	
WNW0206	TOX	07/19/93	ND<2.00	2.00	µg/L	93-07180	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0206	TOX	11/09/93	ND<2.00	2.00	µg/L	93-11784	
WNW0206	TOX	02/21/94	ND<2.00	2.00	µg/L	94-01198	
WNW0206	TOX	05/12/94	ND<2.00	2.00	µg/L	94-03565	
WNW0206	TOX	07/05/94	ND<2.00	2.00	µg/L	94-06661	
WNW0206	pH	03/15/91		7.76	N/A	91-01928	
WNW0206	pH	04/22/91		7.82	N/A	91-02876	
WNW0206	pH	04/22/91		7.87	N/A	91-02876	
WNW0206	pH	05/22/91		7.86	N/A	91-04056	
WNW0206	pH	05/22/91		7.68	N/A	91-04056	
WNW0206	pH	07/15/91		7.82	N/A	91-06173	
WNW0206	pH	07/15/91		7.65	N/A	91-06173	
WNW0206	pH	08/26/91		7.68	N/A	91-07570	
WNW0206	pH	08/26/91		7.68	N/A	91-07570	
WNW0206	pH	10/28/91		7.45	N/A	91-09645	
WNW0206	pH	10/28/91		7.42	N/A	91-09645	
WNW0206	pH	11/26/91		7.55	N/A	91-11214	
WNW0206	pH	11/26/91		7.50	N/A	91-11214	
WNW0206	pH	01/20/92		7.28	N/A	92-00071	
WNW0206	pH	01/20/92		7.34	N/A	92-00071	
WNW0206	pH	03/02/92		7.08	N/A	92-01904	
WNW0206	pH	03/02/92		7.09	N/A	92-01904	
WNW0206	pH	04/13/92		7.42	N/A	92-04009	
WNW0206	pH	04/13/92		7.49	N/A	92-04009	
WNW0206	pH	07/20/92		7.52	N/A	92-07769	
WNW0206	pH	07/20/92		7.57	N/A	92-07769	
WNW0206	pH	08/31/92		7.55	N/A	92-09226	
WNW0206	pH	08/31/92		7.57	N/A	92-09226	
WNW0206	pH	10/12/92		7.42	N/A	92-10855	
WNW0206	pH	10/12/92		7.43	N/A	92-10855	
WNW0206	pH	11/09/92		7.62	N/A	92-11687	
WNW0206	pH	11/09/92		7.64	N/A	92-11687	
WNW0206	pH	12/07/92		7.69	N/A	92-13338	
WNW0206	pH	12/07/92		7.58	N/A	92-13338	
WNW0206	pH	01/18/93		7.48	N/A	93-00345	
WNW0206	pH	01/18/93		7.47	N/A	93-00345	
WNW0206	pH	02/24/93		7.25	N/A	93-02008	
WNW0206	pH	02/24/93		7.26	N/A	93-02008	
WNW0206	pH	04/26/93		7.48	N/A	93-03870	
WNW0206	pH	04/26/93		7.48	N/A	93-03870	
WNW0206	pH	06/02/93		7.45	N/A	93-05813	
WNW0206	pH	06/02/93		7.48	N/A	93-05813	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0206	pH	07/19/93		7.52	N/A	93-07179	
WNW0206	pH	07/19/93		7.53	N/A	93-07179	
WNW0206	pH	11/09/93		7.62	N/A	93-11783	
WNW0206	pH	11/09/93		7.74	N/A	93-11783	
WNW0206	pH	02/21/94		7.64	N/A	94-01197	
WNW0206	pH	02/21/94		7.62	N/A	94-01197	
WNW0206	pH	05/12/94		7.78	N/A	94-03564	
WNW0206	pH	05/12/94		7.81	N/A	94-03564	
WNW0206	pH	07/05/94		7.66	N/A	94-06660	
WNW0206	pH	07/05/94		7.66	N/A	94-06660	
WNW0208	Cond	03/12/91		325.00	µmhos/cm	91-01818	
WNW0208	Cond	04/22/91		315.00	µmhos/cm	91-02880	
WNW0208	Cond	04/22/91		310.00	µmhos/cm	91-02880	
WNW0208	Cond	05/22/91		313.00	µmhos/cm	91-04074	
WNW0208	Cond	05/22/91		311.00	µmhos/cm	91-04074	
WNW0208	Cond	07/15/91		291.00	µmhos/cm	91-06183	
WNW0208	Cond	07/15/91		295.00	µmhos/cm	91-06183	
WNW0208	Cond	08/28/91		297.00	µmhos/cm	91-07580	
WNW0208	Cond	08/28/91		294.00	µmhos/cm	91-07580	
WNW0208	Cond	10/28/91		287.00	µmhos/cm	91-09653	
WNW0208	Cond	10/28/91		295.00	µmhos/cm	91-09653	
WNW0208	Cond	11/27/91		300.00	µmhos/cm	91-11239	
WNW0208	Cond	11/27/91		314.00	µmhos/cm	91-11239	
WNW0208	Cond	01/20/92		309.00	µmhos/cm	92-00079	
WNW0208	Cond	01/20/92		320.00	µmhos/cm	92-00079	
WNW0208	Cond	03/02/92		333.00	µmhos/cm	92-01926	
WNW0208	Cond	03/02/92		321.00	µmhos/cm	92-01926	
WNW0208	Cond	04/13/92		316.00	µmhos/cm	92-04017	
WNW0208	Cond	04/13/92		316.00	µmhos/cm	92-04017	
WNW0208	Cond	07/24/92		308.00	µmhos/cm	92-06780	
WNW0208	Cond	07/24/92		312.00	µmhos/cm	92-06780	
WNW0208	Cond	08/31/92		321.00	µmhos/cm	92-09234	
WNW0208	Cond	08/31/92		326.00	µmhos/cm	92-09234	
WNW0208	Cond	10/12/92		319.00	µmhos/cm	92-10863	
WNW0208	Cond	10/12/92		311.00	µmhos/cm	92-10863	
WNW0208	Cond	11/09/92		313.00	µmhos/cm	92-11695	
WNW0208	Cond	11/09/92		321.00	µmhos/cm	92-11695	
WNW0208	Cond	12/07/92		328.00	µmhos/cm	92-13364	
WNW0208	Cond	12/07/92		313.00	µmhos/cm	92-13364	
WNW0208	Cond	01/18/93		337.00	µmhos/cm	93-00353	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0208	Cond	01/18/93		341.00	µmhos/cm	93-00353	
WNW0208	Cond	02/24/93		333.00	µmhos/cm	93-02029	
WNW0208	Cond	02/24/93		324.00	µmhos/cm	93-02029	
WNW0208	Cond	04/26/93		311.00	µmhos/cm	93-03878	
WNW0208	Cond	04/26/93		325.00	µmhos/cm	93-03878	
WNW0208	Cond	06/02/93		309.00	µmhos/cm	93-05821	
WNW0208	Cond	06/02/93		305.00	µmhos/cm	93-05821	
WNW0208	Cond	07/19/93		305.00	µmhos/cm	93-07187	
WNW0208	Cond	07/19/93		310.00	µmhos/cm	93-07187	
WNW0208	Cond	11/09/93		322.00	µmhos/cm	93-11801	
WNW0208	Cond	11/09/93		309.00	µmhos/cm	93-11801	
WNW0208	Cond	02/21/94		314.00	µmhos/cm	94-01203	
WNW0208	Cond	02/21/94		320.00	µmhos/cm	94-01203	
WNW0208	Cond	05/16/94		306.00	µmhos/cm	94-03582	
WNW0208	Cond	05/16/94		310.00	µmhos/cm	94-03582	
WNW0208	Cond	07/05/94		307.00	µmhos/cm	94-06666	
WNW0208	Cond	07/05/94		303.00	µmhos/cm	94-06666	
WNW0208	NPOC	04/22/91		1.90	mg/L	91-02883	
WNW0208	NPOC	05/22/91		1.50	mg/L	91-04078	
WNW0208	NPOC	07/15/91		1.10	mg/L	91-06187	
WNW0208	NPOC	08/28/91		1.40	mg/L	91-07584	
WNW0208	NPOC	10/28/91	ND < 1.00	1.00	mg/L	91-09656	
WNW0208	NPOC	11/27/91		3.60	mg/L	91-11243	
WNW0208	NPOC	01/20/92		0.80	mg/L	92-00080	
WNW0208	NPOC	03/02/92		0.70	mg/L	92-01927	
WNW0208	NPOC	03/02/92		0.60	mg/L	92-01927	
WNW0208	NPOC	04/13/92		0.40	mg/L	92-04018	
WNW0208	NPOC	07/24/92		0.60	mg/L	92-06781	
WNW0208	NPOC	07/24/92		0.70	mg/L	92-07736	
WNW0208	NPOC	08/31/92		0.60	mg/L	92-09235	
WNW0208	NPOC	10/12/92		0.90	mg/L	92-10864	
WNW0208	NPOC	11/09/92		0.60	mg/L	92-11696	
WNW0208	NPOC	12/07/92		0.60	mg/L	92-13365	
WNW0208	NPOC	01/18/93		0.60	mg/L	93-00354	
WNW0208	NPOC	02/24/93		0.70	mg/L	93-02030	
WNW0208	NPOC	04/26/93		0.60	mg/L	93-03879	
WNW0208	NPOC	06/02/93		0.60	mg/L	93-05822	
WNW0208	NPOC	07/19/93		0.50	mg/L	93-07188	
WNW0208	NPOC	07/19/93		0.70	mg/L	93-07188	
WNW0208	NPOC	11/09/93		0.70	mg/L	93-11802	
WNW0208	NPOC	02/21/94		0.50	mg/L	94-01204	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0208	NPOC	05/16/94		0.60	mg/L	94-03583	
WNW0208	NPOC	07/05/94		0.60	mg/L	94-06667	
WNW0208	TOX	04/22/91	ND<5.00	5.00	µg/L	91-02883	
WNW0208	TOX	05/22/91		5.50	µg/L	91-04078	J
WNW0208	TOX	07/15/91		8.50	µg/L	91-06187	
WNW0208	TOX	08/28/91	ND<5.00	5.00	µg/L	91-07584	
WNW0208	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09656	
WNW0208	TOX	11/27/91	ND<1.00	1.00	µg/L	91-11248	
WNW0208	TOX	11/27/91	ND<5.00	5.00	µg/L	91-11243	
WNW0208	TOX	01/20/92	ND<4.00	4.00	µg/L	92-00080	
WNW0208	TOX	03/02/92	ND<1.00	1.00	µg/L	92-01934	
WNW0208	TOX	03/02/92	ND<4.00	4.00	µg/L	92-01927	
WNW0208	TOX	04/13/92	ND<4.00	4.00	µg/L	92-04018	
WNW0208	TOX	07/24/92	ND<1.00	1.00	µg/L	92-07743	
WNW0208	TOX	07/24/92	ND<4.00	4.00	µg/L	92-06781	
WNW0208	TOX	07/24/92	ND<4.00	4.00	µg/L	92-07736	
WNW0208	TOX	07/24/92	ND<1.00	1.00	µg/L	92-06788	
WNW0208	TOX	08/31/92	ND<4.00	4.00	µg/L	92-09235	
WNW0208	TOX	10/12/92	ND<4.00	4.00	µg/L	92-10864	
WNW0208	TOX	11/09/92	ND<4.00	4.00	µg/L	92-11696	
WNW0208	TOX	12/07/92	ND<1.00	1.00	µg/L	92-13372	
WNW0208	TOX	12/07/92	ND<4.00	4.00	µg/L	92-13365	
WNW0208	TOX	01/18/93	ND<2.00	2.00	µg/L	93-00354	
WNW0208	TOX	02/24/93	ND<2.00	2.00	µg/L	93-02030	
WNW0208	TOX	04/26/93	ND<2.00	2.00	µg/L	93-03879	
WNW0208	TOX	06/02/93	ND<2.00	2.00	µg/L	93-05822	
WNW0208	TOX	07/19/93	ND<2.00	2.00	µg/L	93-07188	
WNW0208	TOX	11/09/93	ND<2.00	2.00	µg/L	93-11802	
WNW0208	TOX	02/21/94	ND<2.00	2.00	µg/L	94-01204	
WNW0208	TOX	05/16/94	ND<2.00	2.00	µg/L	94-03583	
WNW0208	TOX	07/05/94	ND<2.00	2.00	µg/L	94-06667	
WNW0208	pH	03/12/91		7.88	N/A	91-01818	
WNW0208	pH	04/22/91		7.93	N/A	91-02880	
WNW0208	pH	04/22/91		7.92	N/A	91-02880	
WNW0208	pH	05/22/91		7.84	N/A	91-04074	
WNW0208	pH	05/22/91		7.17	N/A	91-04074	
WNW0208	pH	07/15/91		7.80	N/A	91-06183	
WNW0208	pH	07/15/91		7.78	N/A	91-06183	
WNW0208	pH	08/28/91		7.89	N/A	91-07580	
WNW0208	pH	08/28/91		7.89	N/A	91-07580	
WNW0208	pH	10/28/91		7.64	N/A	91-09653	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0208	pH	10/28/91		7.62	N/A	91-09653	
WNW0208	pH	11/27/91		7.82	N/A	91-11239	
WNW0208	pH	11/27/91		7.78	N/A	91-11239	
WNW0208	pH	01/20/92		7.42	N/A	92-00079	
WNW0208	pH	01/20/92		7.45	N/A	92-00079	
WNW0208	pH	03/02/92		7.21	N/A	92-01926	
WNW0208	pH	03/02/92		7.22	N/A	92-01926	
WNW0208	pH	04/13/92		7.65	N/A	92-04017	
WNW0208	pH	04/13/92		7.65	N/A	92-04017	
WNW0208	pH	07/24/92		7.76	N/A	92-06780	
WNW0208	pH	07/24/92		7.72	N/A	92-06780	
WNW0208	pH	08/31/92		7.76	N/A	92-09234	
WNW0208	pH	08/31/92		7.79	N/A	92-09234	
WNW0208	pH	10/12/92		7.51	N/A	92-10863	
WNW0208	pH	10/12/92		7.50	N/A	92-10863	
WNW0208	pH	11/09/92		7.84	N/A	92-11695	
WNW0208	pH	11/09/92		7.89	N/A	92-11695	
WNW0208	pH	12/07/92		7.82	N/A	92-13364	
WNW0208	pH	12/07/92		7.78	N/A	92-13364	
WNW0208	pH	01/18/93		7.55	N/A	93-00353	
WNW0208	pH	01/18/93		7.54	N/A	93-00353	
WNW0208	pH	02/24/93		7.41	N/A	93-02029	
WNW0208	pH	02/24/93		7.53	N/A	93-02029	
WNW0208	pH	04/26/93		7.77	N/A	93-03878	
WNW0208	pH	04/26/93		7.76	N/A	93-03878	
WNW0208	pH	06/02/93		7.45	N/A	93-05821	
WNW0208	pH	06/02/93		7.45	N/A	93-05821	
WNW0208	pH	07/19/93		7.73	N/A	93-07187	
WNW0208	pH	07/19/93		7.76	N/A	93-07187	
WNW0208	pH	11/09/93		7.93	N/A	93-11801	
WNW0208	pH	11/09/93		7.05	N/A	93-11801	
WNW0208	pH	02/21/94		7.93	N/A	94-01203	
WNW0208	pH	02/21/94		7.92	N/A	94-01203	
WNW0208	pH	05/16/94		8.17	N/A	94-03582	
WNW0208	pH	05/16/94		8.21	N/A	94-03582	
WNW0208	pH	07/05/94		8.01	N/A	94-06666	
WNW0208	pH	07/05/94		8.00	N/A	94-06666	
Sand And Gravel							
WNW0201	Cond	02/06/91		711.00	μmhos/cm	91-00984	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	Cond	02/06/91		699.00	µmhos/cm	91-00984	
WNW0201	Cond	04/25/91		882.00	µmhos/cm	91-03040	
WNW0201	Cond	05/21/91		1100.00	µmhos/cm	91-04083	
WNW0201	Cond	07/15/91		513.00	µmhos/cm	91-06239	
WNW0201	Cond	07/15/91		538.00	µmhos/cm	91-06239	
WNW0201	Cond	08/28/91		905.00	µmhos/cm	91-07721	
WNW0201	Cond	08/28/91		1044.00	µmhos/cm	91-07721	
WNW0201	Cond	10/28/91		1098.00	µmhos/cm	91-09625	
WNW0201	Cond	10/28/91		1076.00	µmhos/cm	91-09625	
WNW0201	Cond	11/25/91		688.00	µmhos/cm	91-11155	
WNW0201	Cond	11/25/91		865.00	µmhos/cm	91-11155	
WNW0201	Cond	01/20/92		1190.00	µmhos/cm	92-00051	
WNW0201	Cond	01/20/92		1185.00	µmhos/cm	92-00051	
WNW0201	Cond	03/02/92		1373.00	µmhos/cm	92-01849	
WNW0201	Cond	03/02/92		1354.00	µmhos/cm	92-01849	
WNW0201	Cond	04/13/92		1528.00	µmhos/cm	92-03989	
WNW0201	Cond	04/13/92		1538.00	µmhos/cm	92-03989	
WNW0201	Cond	07/20/92		953.00	µmhos/cm	92-06702	
WNW0201	Cond	07/20/92		950.00	µmhos/cm	92-06702	
WNW0201	Cond	08/31/92		968.00	µmhos/cm	92-09206	
WNW0201	Cond	08/31/92		948.00	µmhos/cm	92-09206	
WNW0201	Cond	10/12/92		1207.00	µmhos/cm	92-10835	
WNW0201	Cond	10/12/92		1199.00	µmhos/cm	92-10835	
WNW0201	Cond	11/09/92		934.00	µmhos/cm	92-11667	
WNW0201	Cond	11/09/92		935.00	µmhos/cm	92-11667	
WNW0201	Cond	12/07/92		977.00	µmhos/cm	92-13273	
WNW0201	Cond	12/07/92		974.00	µmhos/cm	92-13273	
WNW0201	Cond	01/18/93		1244.00	µmhos/cm	93-00325	
WNW0201	Cond	01/18/93		1245.00	µmhos/cm	93-00325	
WNW0201	Cond	02/24/93		1129.00	µmhos/cm	93-01958	
WNW0201	Cond	02/24/93		1063.00	µmhos/cm	93-01958	
WNW0201	Cond	04/26/93		1921.00	µmhos/cm	93-03850	
WNW0201	Cond	04/26/93		1913.00	µmhos/cm	93-03850	
WNW0201	Cond	06/02/93		1705.00	µmhos/cm	93-05793	
WNW0201	Cond	06/02/93		1694.00	µmhos/cm	93-05793	
WNW0201	Cond	07/19/93		1821.00	µmhos/cm	93-07159	
WNW0201	Cond	07/19/93		1841.00	µmhos/cm	93-07159	
WNW0201	Cond	11/09/93		1622.00	µmhos/cm	93-11809	
WNW0201	Cond	11/09/93		1624.00	µmhos/cm	93-11809	
WNW0201	Cond	02/21/94		954.00	µmhos/cm	94-01182	
WNW0201	Cond	02/21/94		936.00	µmhos/cm	94-01182	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	Cond	05/12/94		2310.00	µmhos/cm	94-03491	
WNW0201	Cond	05/12/94		2450.00	µmhos/cm	94-03491	
WNW0201	Cond	07/05/94		2640.00	µmhos/cm	94-06644	
WNW0201	Cond	07/05/94		2650.00	µmhos/cm	94-06644	
WNW0201	NPOC	04/25/91		21.00	mg/L	91-03043	
WNW0201	NPOC	05/21/91		4.80	mg/L	91-04087	
WNW0201	NPOC	07/15/91		3.20	mg/L	91-06243	
WNW0201	NPOC	08/28/91		1.90	mg/L	91-07549	
WNW0201	NPOC	10/28/91		61.00	mg/L	91-09628	
WNW0201	NPOC	11/25/91		3.10	mg/L	91-11159	F
WNW0201	NPOC	01/20/92		2.00	mg/L	92-00052	
WNW0201	NPOC	03/02/92		1.90	mg/L	92-01850	
WNW0201	NPOC	04/13/92		1.90	mg/L	92-03990	
WNW0201	NPOC	07/20/92		2.80	mg/L	92-06703	
WNW0201	NPOC	08/31/92		2.80	mg/L	92-09207	
WNW0201	NPOC	08/31/92		2.80	mg/L	92-09207	
WNW0201	NPOC	10/12/92		2.50	mg/L	92-10836	
WNW0201	NPOC	11/09/92		2.40	mg/L	92-11668	
WNW0201	NPOC	11/09/92		2.30	mg/L	92-11668	
WNW0201	NPOC	12/07/92		2.50	mg/L	92-13274	
WNW0201	NPOC	12/07/92		2.60	mg/L	92-13274	
WNW0201	NPOC	01/18/93		2.00	mg/L	93-00326	
WNW0201	NPOC	02/24/93		2.00	mg/L	93-01959	
WNW0201	NPOC	04/26/93		1.70	mg/L	93-03851	
WNW0201	NPOC	06/02/93		1.70	mg/L	93-05794	
WNW0201	NPOC	06/02/93		1.70	mg/L	93-05794	
WNW0201	NPOC	07/19/93		1.60	mg/L	93-07160	
WNW0201	NPOC	07/19/93		1.70	mg/L	93-07160	
WNW0201	NPOC	11/09/93		1.70	mg/L	93-11812	
WNW0201	NPOC	02/21/94		2.50	mg/L	94-01183	
WNW0201	NPOC	05/12/94		1.90	mg/L	94-03492	
WNW0201	NPOC	07/05/94		1.70	mg/L	94-06645	
WNW0201	NPOC	07/05/94		1.90	mg/L	94-06645	
WNW0201	TOX	04/25/91		22.00	µg/L	91-03043	
WNW0201	TOX	05/21/91		21.00	µg/L	91-04087	J
WNW0201	TOX	07/15/91		26.00	µg/L	91-06243	
WNW0201	TOX	08/28/91	ND<5.00	5.00	µg/L	91-07549	
WNW0201	TOX	10/28/91		11.00	µg/L	91-09628	
WNW0201	TOX	11/25/91		5.50	µg/L	91-11159	
WNW0201	TOX	11/25/91	ND<1.00	1.00	µg/L	91-11164	
WNW0201	TOX	01/20/92		6.40	µg/L	92-00052	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	TOX	03/02/92		11.00	µg/L	92-01850	
WNW0201	TOX	03/02/92	ND < 1.00	1.00	µg/L	92-01857	
WNW0201	TOX	04/13/92		13.80	µg/L	92-03990	
WNW0201	TOX	07/20/92	ND < 1.00	1.00	µg/L	92-06710	UJ
WNW0201	TOX	07/20/92		15.00	µg/L	92-07868	
WNW0201	TOX	08/31/92		14.20	µg/L	92-09207	
WNW0201	TOX	10/12/92		15.50	µg/L	92-10836	
WNW0201	TOX	11/09/92		5.80	µg/L	92-11668	
WNW0201	TOX	12/07/92		15.10	µg/L	92-13274	
WNW0201	TOX	12/07/92	ND < 1.00	1.00	µg/L	92-13281	
WNW0201	TOX	01/18/93		15.00	µg/L	93-00326	
WNW0201	TOX	02/24/93		6.60	µg/L	93-01959	
WNW0201	TOX	04/26/93	ND < 4.00	4.00	µg/L	93-03851	
WNW0201	TOX	06/02/93	ND < 6.00	6.00	µg/L	93-05794	
WNW0201	TOX	07/19/93		23.40	µg/L	93-07160	
WNW0201	TOX	11/09/93		12.50	µg/L	93-11812	
WNW0201	TOX	11/09/93	ND < 1.00	1.00	µg/L	93-11822	UJ
WNW0201	TOX	02/21/94		15.80	µg/L	94-01183	
WNW0201	TOX	05/12/94		27.80	µg/L	94-03492	
WNW0201	TOX	05/12/94	ND < 1.00	1.00	µg/L	94-03502	UJ
WNW0201	TOX	07/05/94		49.50	µg/L	94-06645	
WNW0201	pH	02/06/91		6.24	N/A	91-00984	
WNW0201	pH	02/06/91		6.23	N/A	91-00984	
WNW0201	pH	04/25/91		6.00	N/A	91-03040	
WNW0201	pH	05/21/91		6.83	N/A	91-04083	
WNW0201	pH	07/15/91		5.98	N/A	91-06239	
WNW0201	pH	07/15/91		6.25	N/A	91-06239	
WNW0201	pH	08/28/91		6.47	N/A	91-07721	
WNW0201	pH	08/28/91		6.30	N/A	91-07721	
WNW0201	pH	10/28/91		6.33	N/A	91-09625	
WNW0201	pH	10/28/91		6.32	N/A	91-09625	
WNW0201	pH	11/25/91		6.40	N/A	91-11155	
WNW0201	pH	11/25/91		6.51	N/A	91-11155	
WNW0201	pH	01/20/92		6.03	N/A	92-00051	
WNW0201	pH	01/20/92		5.95	N/A	92-00051	
WNW0201	pH	03/02/92		5.90	N/A	92-01849	
WNW0201	pH	03/02/92		5.83	N/A	92-01849	
WNW0201	pH	04/13/92		5.90	N/A	92-03989	
WNW0201	pH	04/13/92		5.86	N/A	92-03989	
WNW0201	pH	07/20/92		5.97	N/A	92-06702	
WNW0201	pH	07/20/92		6.01	N/A	92-06702	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	pH	08/31/92		6.15	N/A	92-09206	
WNW0201	pH	08/31/92		6.10	N/A	92-09206	
WNW0201	pH	10/12/92		6.34	N/A	92-10835	
WNW0201	pH	10/12/92		6.32	N/A	92-10835	
WNW0201	pH	11/09/92		6.12	N/A	92-11667	
WNW0201	pH	11/09/92		6.10	N/A	92-11667	
WNW0201	pH	12/07/92		6.12	N/A	92-13273	
WNW0201	pH	12/07/92		6.09	N/A	92-13273	
WNW0201	pH	01/18/93		6.51	N/A	93-00325	
WNW0201	pH	01/18/93		6.43	N/A	93-00325	
WNW0201	pH	02/24/93		6.69	N/A	93-01958	
WNW0201	pH	02/24/93		6.48	N/A	93-01958	
WNW0201	pH	04/26/93		5.97	N/A	93-03850	
WNW0201	pH	04/26/93		5.98	N/A	93-03850	
WNW0201	pH	06/02/93		7.05	N/A	93-05793	
WNW0201	pH	06/02/93		7.00	N/A	93-05793	
WNW0201	pH	07/19/93		6.25	N/A	93-07159	
WNW0201	pH	07/19/93		6.23	N/A	93-07159	
WNW0201	pH	11/09/93		6.32	N/A	93-11809	
WNW0201	pH	11/09/93		6.31	N/A	93-11809	
WNW0201	pH	11/09/93	ND < 10.00	10.00	N/A	93-11820	
WNW0201	pH	11/09/93	ND < 10.00	10.00	N/A	93-11820	
WNW0201	pH	02/21/94		6.33	N/A	94-01182	
WNW0201	pH	02/21/94		6.31	N/A	94-01182	
WNW0201	pH	05/12/94		6.28	N/A	94-03491	
WNW0201	pH	05/12/94		6.29	N/A	94-03491	
WNW0201	pH	05/12/94	ND < 10.00	10.00	N/A	94-03500	
WNW0201	pH	05/12/94	ND < 10.00	10.00	N/A	94-03500	
WNW0201	pH	07/05/94		5.97	N/A	94-06644	
WNW0201	pH	07/05/94		5.99	N/A	94-06644	
WNW0203	Cond	03/12/91		1730.00	μmhos/cm	91-01839	
WNW0203	Cond	04/22/91		257.00	μmhos/cm	91-02865	
WNW0203	Cond	04/22/91		257.00	μmhos/cm	91-02865	
WNW0203	Cond	05/22/91		2560.00	μmhos/cm	91-04029	
WNW0203	Cond	05/22/91		2580.00	μmhos/cm	91-04029	
WNW0203	Cond	07/15/91		874.00	μmhos/cm	91-06158	
WNW0203	Cond	07/15/91		873.00	μmhos/cm	91-06158	
WNW0203	Cond	08/26/91		1653.00	μmhos/cm	91-07555	
WNW0203	Cond	10/28/91		2500.00	μmhos/cm	91-09633	
WNW0203	Cond	10/28/91		2520.00	μmhos/cm	91-09633	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	Cond	11/25/91		2130.00	µmhos/cm	91-11179	
WNW0203	Cond	11/25/91		2190.00	µmhos/cm	91-11179	
WNW0203	Cond	01/20/92		1880.00	µmhos/cm	92-00059	
WNW0203	Cond	01/20/92		1890.00	µmhos/cm	92-00059	
WNW0203	Cond	03/02/92		2420.00	µmhos/cm	92-01871	
WNW0203	Cond	03/02/92		2420.00	µmhos/cm	92-01871	
WNW0203	Cond	04/13/92		4260.00	µmhos/cm	92-03997	
WNW0203	Cond	04/13/92		4240.00	µmhos/cm	92-03997	
WNW0203	Cond	07/20/92		1826.00	µmhos/cm	92-06728	
WNW0203	Cond	07/20/92		1837.00	µmhos/cm	92-06728	
WNW0203	Cond	08/31/92		1393.00	µmhos/cm	92-09214	
WNW0203	Cond	08/31/92		1393.00	µmhos/cm	92-09214	
WNW0203	Cond	10/12/92		1793.00	µmhos/cm	92-10843	
WNW0203	Cond	10/12/92		1738.00	µmhos/cm	92-10843	
WNW0203	Cond	11/09/92		1883.00	µmhos/cm	92-11675	
WNW0203	Cond	11/09/92		1875.00	µmhos/cm	92-11675	
WNW0203	Cond	12/07/92		1673.00	µmhos/cm	92-13299	
WNW0203	Cond	12/07/92		1671.00	µmhos/cm	92-13299	
WNW0203	Cond	01/18/93		1753.00	µmhos/cm	93-00333	
WNW0203	Cond	01/18/93		1748.00	µmhos/cm	93-00333	
WNW0203	Cond	02/24/93		3050.00	µmhos/cm	93-01978	
WNW0203	Cond	02/24/93		3070.00	µmhos/cm	93-01978	
WNW0203	Cond	04/26/93		3860.00	µmhos/cm	93-03858	
WNW0203	Cond	04/26/93		3860.00	µmhos/cm	93-03858	
WNW0203	Cond	06/02/93		2690.00	µmhos/cm	93-05801	
WNW0203	Cond	06/02/93		2650.00	µmhos/cm	93-05801	
WNW0203	Cond	07/19/93		2470.00	µmhos/cm	93-07167	
WNW0203	Cond	07/19/93		2450.00	µmhos/cm	93-07167	
WNW0203	Cond	11/09/93		2660.00	µmhos/cm	93-11834	
WNW0203	Cond	11/09/93		2650.00	µmhos/cm	93-11834	
WNW0203	Cond	02/21/94		5820.00	µmhos/cm	94-01188	
WNW0203	Cond	02/21/94		5920.00	µmhos/cm	94-01188	
WNW0203	Cond	05/12/94		4290.00	µmhos/cm	94-03523	
WNW0203	Cond	05/12/94		4210.00	µmhos/cm	94-03523	
WNW0203	Cond	07/05/94		3940.00	µmhos/cm	94-06651	
WNW0203	Cond	07/05/94		3890.00	µmhos/cm	94-06651	
WNW0203	NPOC	04/22/91		4.30	mg/L	91-02868	
WNW0203	NPOC	04/22/91		4.20	mg/L	91-02871	
WNW0203	NPOC	05/22/91		1.80	mg/L	91-04033	
WNW0203	NPOC	07/15/91		3.50	mg/L	91-06162	
WNW0203	NPOC	08/26/91		1.90	mg/L	91-07559	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	NPOC	10/28/91		9.20	mg/L	91-09636	
WNW0203	NPOC	11/25/91		3.70	mg/L	91-11183	J
WNW0203	NPOC	01/20/92		2.90	mg/L	92-00060	
WNW0203	NPOC	03/02/92		2.30	mg/L	92-01872	
WNW0203	NPOC	04/13/92		1.60	mg/L	92-03998	
WNW0203	NPOC	07/20/92		2.50	mg/L	92-06729	
WNW0203	NPOC	08/31/92		2.20	mg/L	92-09215	
WNW0203	NPOC	10/12/92		2.40	mg/L	92-10844	
WNW0203	NPOC	11/09/92		2.50	mg/L	92-11676	
WNW0203	NPOC	11/09/92		2.50	mg/L	92-11676	
WNW0203	NPOC	12/07/92		2.30	mg/L	92-13300	
WNW0203	NPOC	01/18/93		2.10	mg/L	93-00334	
WNW0203	NPOC	02/24/93		3.00	mg/L	93-01979	
WNW0203	NPOC	04/26/93		3.20	mg/L	93-03859	
WNW0203	NPOC	04/26/93		3.30	mg/L	93-03859	
WNW0203	NPOC	06/02/93		2.40	mg/L	93-05802	
WNW0203	NPOC	07/19/93		2.60	mg/L	93-07168	
WNW0203	NPOC	07/19/93		2.80	mg/L	93-07168	
WNW0203	NPOC	11/09/93		2.60	mg/L	93-11836	
WNW0203	NPOC	11/09/93		2.70	mg/L	93-11836	
WNW0203	NPOC	02/21/94		4.10	mg/L	94-01189	
WNW0203	NPOC	05/12/94		2.20	mg/L	94-03524	
WNW0203	NPOC	05/12/94		2.30	mg/L	94-03598	
WNW0203	NPOC	07/05/94		2.50	mg/L	94-06652	
WNW0203	NPOC	07/05/94		2.30	mg/L	94-06652	
WNW0203	TOX	04/22/91		2.40	µg/L	91-02868	R
WNW0203	TOX	04/22/91		43.00	µg/L	91-02871	
WNW0203	TOX	05/22/91		49.00	µg/L	91-04033	J
WNW0203	TOX	07/15/91		33.00	µg/L	91-06162	
WNW0203	TOX	08/26/91	ND < 5.00	5.00	µg/L	91-07559	J
WNW0203	TOX	10/28/91		19.00	µg/L	91-09636	
WNW0203	TOX	11/25/91		19.00	µg/L	91-11183	
WNW0203	TOX	11/25/91	ND < 1.00	1.00	µg/L	91-11188	
WNW0203	TOX	01/20/92		22.20	µg/L	92-00060	
WNW0203	TOX	03/02/92		35.50	µg/L	92-01872	
WNW0203	TOX	03/02/92	ND < 1.00	1.00	µg/L	92-01879	
WNW0203	TOX	04/13/92		38.80	µg/L	92-03998	
WNW0203	TOX	07/20/92	ND < 1.00	1.00	µg/L	92-06736	UJ
WNW0203	TOX	07/20/92		24.00	µg/L	92-07867	
WNW0203	TOX	08/31/92		16.90	µg/L	92-09215	
WNW0203	TOX	10/12/92		19.20	µg/L	92-10844	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	TOX	11/09/92		46.40	µg/L	92-11676	
WNW0203	TOX	12/07/92		33.60	µg/L	92-13300	
WNW0203	TOX	12/07/92	ND < 1.00	1.00	µg/L	92-13307	
WNW0203	TOX	01/18/93		33.20	µg/L	93-00334	
WNW0203	TOX	02/24/93		26.10	µg/L	93-01979	
WNW0203	TOX	04/26/93		12.50	µg/L	93-03859	
WNW0203	TOX	06/02/93		21.30	µg/L	93-05802	
WNW0203	TOX	07/19/93		14.20	µg/L	93-07168	
WNW0203	TOX	11/09/93		43.90	µg/L	93-11836	
WNW0203	TOX	11/09/93	ND < 1.00	1.00	µg/L	93-11853	UJ
WNW0203	TOX	02/21/94		48.60	µg/L	94-01189	
WNW0203	TOX	05/12/94		37.20	µg/L	94-03524	
WNW0203	TOX	05/12/94	ND < 1.00	1.00	µg/L	94-03534	UJ
WNW0203	TOX	05/12/94		28.60	µg/L	94-03598	
WNW0203	TOX	05/12/94	ND < 1.00	1.00	µg/L	94-03608	UJ
WNW0203	TOX	07/05/94		27.80	µg/L	94-06652	
WNW0203	pH	03/12/91		6.66	N/A	91-01839	
WNW0203	pH	04/22/91		6.64	N/A	91-02865	
WNW0203	pH	04/22/91		6.68	N/A	91-02865	
WNW0203	pH	05/22/91		6.42	N/A	91-04029	
WNW0203	pH	05/22/91		6.47	N/A	91-04029	
WNW0203	pH	07/15/91		6.44	N/A	91-06158	
WNW0203	pH	07/15/91		6.45	N/A	91-06158	
WNW0203	pH	08/26/91		6.51	N/A	91-07555	
WNW0203	pH	08/26/91		6.35	N/A	91-07555	
WNW0203	pH	10/28/91		6.25	N/A	91-09633	
WNW0203	pH	10/28/91		6.22	N/A	91-09633	
WNW0203	pH	11/25/91		6.50	N/A	91-11179	
WNW0203	pH	11/25/91		6.46	N/A	91-11179	
WNW0203	pH	01/20/92		6.52	N/A	92-00059	
WNW0203	pH	01/20/92		6.44	N/A	92-00059	
WNW0203	pH	03/02/92		6.15	N/A	92-01871	
WNW0203	pH	03/02/92		6.13	N/A	92-01871	
WNW0203	pH	04/13/92		6.38	N/A	92-03997	
WNW0203	pH	04/13/92		6.37	N/A	92-03997	
WNW0203	pH	07/20/92		6.43	N/A	92-06728	
WNW0203	pH	07/20/92		6.43	N/A	92-06728	
WNW0203	pH	08/31/92		6.42	N/A	92-09214	
WNW0203	pH	08/31/92		6.42	N/A	92-09214	
WNW0203	pH	10/12/92		6.56	N/A	92-10843	
WNW0203	pH	10/12/92		6.50	N/A	92-10843	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	pH	11/09/92		6.43	N/A	92-11675	
WNW0203	pH	11/09/92		6.44	N/A	92-11675	
WNW0203	pH	12/07/92		6.67	N/A	92-13299	
WNW0203	pH	12/07/92		6.49	N/A	92-13299	
WNW0203	pH	01/18/93		6.85	N/A	93-00333	
WNW0203	pH	01/18/93		6.74	N/A	93-00333	
WNW0203	pH	02/24/93		6.41	N/A	93-01978	
WNW0203	pH	02/24/93		6.38	N/A	93-01978	
WNW0203	pH	04/26/93		6.54	N/A	93-03858	
WNW0203	pH	04/26/93		6.50	N/A	93-03858	
WNW0203	pH	06/02/93		6.62	N/A	93-05801	
WNW0203	pH	06/02/93		6.60	N/A	93-05801	
WNW0203	pH	07/19/93		6.48	N/A	93-07167	
WNW0203	pH	07/19/93		6.51	N/A	93-07167	
WNW0203	pH	11/09/93		6.41	N/A	93-11834	
WNW0203	pH	11/09/93		6.42	N/A	93-11834	
WNW0203	pH	11/09/93	ND < 10.00	10.00	N/A	93-11852	
WNW0203	pH	11/09/93	ND < 10.00	10.00	N/A	93-11852	
WNW0203	pH	02/21/94		6.50	N/A	94-01188	
WNW0203	pH	02/21/94		6.49	N/A	94-01188	
WNW0203	pH	05/12/94		6.60	N/A	94-03523	
WNW0203	pH	05/12/94		6.63	N/A	94-03523	
WNW0203	pH	05/12/94	ND < 10.00	10.00	N/A	94-03532	
WNW0203	pH	05/12/94	ND < 10.00	10.00	N/A	94-03532	
WNW0203	pH	05/12/94	ND < 10.00	10.00	N/A	94-03606	
WNW0203	pH	05/12/94	ND < 10.00	10.00	N/A	94-03606	
WNW0203	pH	07/05/94		6.26	N/A	94-06651	
WNW0203	pH	07/05/94		6.31	N/A	94-06651	
WNW0205	Cond	03/21/91		1616.00	μmhos/cm	91-02097	
WNW0205	Cond	03/21/91		1615.00	μmhos/cm	91-02097	
WNW0205	Cond	04/25/91		2110.00	μmhos/cm	91-03048	
WNW0205	Cond	05/21/91		3520.00	μmhos/cm	91-04047	
WNW0205	Cond	07/15/91		4070.00	μmhos/cm	91-06168	
WNW0205	Cond	07/15/91		4040.00	μmhos/cm	91-06168	
WNW0205	Cond	08/26/91		2140.00	μmhos/cm	91-07565	
WNW0205	Cond	08/26/91		2140.00	μmhos/cm	91-07565	
WNW0205	Cond	10/28/91		1728.00	μmhos/cm	91-09641	
WNW0205	Cond	10/28/91		1736.00	μmhos/cm	91-09641	
WNW0205	Cond	11/26/91		3390.00	μmhos/cm	91-11204	
WNW0205	Cond	11/26/91		3410.00	μmhos/cm	91-11204	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	Cond	01/20/92		2570.00	µmhos/cm	92-00067	
WNW0205	Cond	01/20/92		2580.00	µmhos/cm	92-00067	
WNW0205	Cond	03/02/92		3290.00	µmhos/cm	92-01893	
WNW0205	Cond	03/02/92		3280.00	µmhos/cm	92-01893	
WNW0205	Cond	04/13/92		7400.00	µmhos/cm	92-04005	
WNW0205	Cond	04/13/92		7410.00	µmhos/cm	92-04005	
WNW0205	Cond	07/20/92		6850.00	µmhos/cm	92-06754	
WNW0205	Cond	07/20/92		6860.00	µmhos/cm	92-06754	
WNW0205	Cond	08/31/92		5020.00	µmhos/cm	92-09222	
WNW0205	Cond	08/31/92		5020.00	µmhos/cm	92-09222	
WNW0205	Cond	10/12/92		4020.00	µmhos/cm	92-10851	
WNW0205	Cond	10/12/92		4020.00	µmhos/cm	92-10851	
WNW0205	Cond	11/09/92		3050.00	µmhos/cm	92-11683	
WNW0205	Cond	11/09/92		3060.00	µmhos/cm	92-11683	
WNW0205	Cond	12/07/92		215.00	µmhos/cm	92-13325	
WNW0205	Cond	12/07/92		196.00	µmhos/cm	92-13325	
WNW0205	Cond	01/18/93		2520.00	µmhos/cm	93-00341	
WNW0205	Cond	01/18/93		2510.00	µmhos/cm	93-00341	
WNW0205	Cond	02/24/93		2470.00	µmhos/cm	93-01998	
WNW0205	Cond	02/24/93		2470.00	µmhos/cm	93-01998	
WNW0205	Cond	04/26/93		2740.00	µmhos/cm	93-03866	
WNW0205	Cond	04/26/93		2750.00	µmhos/cm	93-03866	
WNW0205	Cond	06/02/93		3260.00	µmhos/cm	93-05809	
WNW0205	Cond	06/02/93		3270.00	µmhos/cm	93-05809	
WNW0205	Cond	07/19/93		2480.00	µmhos/cm	93-07175	
WNW0205	Cond	07/19/93		2320.00	µmhos/cm	93-07175	
WNW0205	Cond	11/09/93		4630.00	µmhos/cm	93-11858	
WNW0205	Cond	11/09/93		4630.00	µmhos/cm	93-11858	
WNW0205	Cond	02/21/94		6760.00	µmhos/cm	94-01194	
WNW0205	Cond	02/21/94		6750.00	µmhos/cm	94-01194	
WNW0205	Cond	05/12/94		3500.00	µmhos/cm	94-03548	
WNW0205	Cond	05/12/94		3520.00	µmhos/cm	94-03548	
WNW0205	Cond	07/05/94		2670.00	µmhos/cm	94-06657	
WNW0205	Cond	07/05/94		2670.00	µmhos/cm	94-06657	
WNW0205	NPOC	04/25/91		17.00	mg/L	91-03051	
WNW0205	NPOC	05/21/91		11.00	mg/L	91-04051	
WNW0205	NPOC	07/15/91		27.00	mg/L	91-06172	
WNW0205	NPOC	08/26/91		5.40	mg/L	91-07569	
WNW0205	NPOC	10/28/91		3.50	mg/L	91-09644	
WNW0205	NPOC	11/26/91		4.80	mg/L	91-11208	F
WNW0205	NPOC	01/20/92		3.70	mg/L	92-00068	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	NPOC	03/02/92		2.90	mg/L	92-01894	
WNW0205	NPOC	04/13/92		2.20	mg/L	92-04006	
WNW0205	NPOC	07/20/92		4.50	mg/L	92-06755	
WNW0205	NPOC	07/20/92		4.50	mg/L	92-06755	
WNW0205	NPOC	08/31/92		6.80	mg/L	92-09223	
WNW0205	NPOC	10/12/92		7.00	mg/L	92-10852	
WNW0205	NPOC	11/09/92		6.10	mg/L	92-11684	
WNW0205	NPOC	12/07/92		4.50	mg/L	92-13326	
WNW0205	NPOC	12/07/92		4.40	mg/L	92-13326	
WNW0205	NPOC	01/18/93		3.10	mg/L	93-00342	
WNW0205	NPOC	01/18/93		3.00	mg/L	93-00342	
WNW0205	NPOC	02/24/93		5.00	mg/L	93-01999	
WNW0205	NPOC	02/24/93		5.10	mg/L	93-01999	
WNW0205	NPOC	04/26/93		2.50	mg/L	93-03867	
WNW0205	NPOC	04/26/93		2.50	mg/L	93-03867	
WNW0205	NPOC	06/02/93		3.40	mg/L	93-05810	
WNW0205	NPOC	06/02/93		3.40	mg/L	93-05810	
WNW0205	NPOC	07/19/93		5.20	mg/L	93-07176	
WNW0205	NPOC	07/19/93		5.30	mg/L	93-07176	
WNW0205	NPOC	11/09/93		3.70	mg/L	93-11859	
WNW0205	NPOC	11/09/93		3.50	mg/L	93-11859	
WNW0205	NPOC	02/21/94		4.00	mg/L	94-01195	
WNW0205	NPOC	05/12/94		2.60	mg/L	94-03549	
WNW0205	NPOC	07/05/94		2.60	mg/L	94-06658	
WNW0205	NPOC	07/05/94		2.60	mg/L	94-06658	
WNW0205	TOX	04/25/91		41.00	µg/L	91-03051	
WNW0205	TOX	05/21/91		120.00	µg/L	91-04051	J
WNW0205	TOX	07/15/91		63.00	µg/L	91-06172	
WNW0205	TOX	08/26/91		42.00	µg/L	91-07569	
WNW0205	TOX	10/28/91		23.00	µg/L	91-09644	
WNW0205	TOX	11/26/91		20.00	µg/L	91-11208	
WNW0205	TOX	11/26/91	ND < 1.00	1.00	µg/L	91-11215	
WNW0205	TOX	01/20/92		24.50	µg/L	92-00068	
WNW0205	TOX	03/02/92		29.80	µg/L	92-01894	
WNW0205	TOX	03/02/92	ND < 1.00	1.00	µg/L	92-01901	
WNW0205	TOX	07/20/92	ND < 1.00	1.00	µg/L	92-06762	UJ
WNW0205	TOX	07/20/92		46.00	µg/L	92-07869	R
WNW0205	TOX	08/31/92		105.60	µg/L	92-09223	
WNW0205	TOX	10/12/92		67.00	µg/L	92-10852	
WNW0205	TOX	11/09/92		83.00	µg/L	92-11684	
WNW0205	TOX	12/07/92		75.40	µg/L	92-13326	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	TOX	12/07/92	ND < 1.00	1.00	μg/L	92-13333	
WNW0205	TOX	02/16/93		150.00	μg/L	93-01943	
WNW0205	TOX	02/24/93		126.00	μg/L	93-01999	
WNW0205	TOX	04/26/93		11.30	μg/L	93-03867	
WNW0205	TOX	06/02/93		13.80	μg/L	93-05810	
WNW0205	TOX	07/19/93		24.40	μg/L	93-07176	
WNW0205	TOX	11/09/93		22.90	μg/L	93-11859	
WNW0205	TOX	11/09/93	ND < 1.00	1.00	μg/L	93-11869	UJ
WNW0205	TOX	03/02/94		38.00	μg/L	94-01916	
WNW0205	TOX	05/12/94		25.50	μg/L	94-03549	
WNW0205	TOX	05/12/94	ND < 1.00	1.00	μg/L	94-03559	R
WNW0205	TOX	07/05/94		10.80	μg/L	94-06658	
WNW0205	pH	03/21/91		6.67	N/A	91-02097	
WNW0205	pH	03/21/91		6.75	N/A	91-02097	
WNW0205	pH	04/25/91		6.33	N/A	91-03048	
WNW0205	pH	05/21/91		6.30	N/A	91-04047	
WNW0205	pH	07/15/91		6.25	N/A	91-06168	
WNW0205	pH	07/15/91		6.25	N/A	91-06168	
WNW0205	pH	08/26/91		6.55	N/A	91-07565	
WNW0205	pH	08/26/91		6.56	N/A	91-07565	
WNW0205	pH	10/28/91		6.45	N/A	91-09641	
WNW0205	pH	10/28/91		6.39	N/A	91-09641	
WNW0205	pH	11/26/91		6.43	N/A	91-11204	
WNW0205	pH	11/26/91		6.41	N/A	91-11204	
WNW0205	pH	01/20/92		6.15	N/A	92-00067	
WNW0205	pH	01/20/92		6.11	N/A	92-00067	
WNW0205	pH	03/02/92		6.02	N/A	92-01893	
WNW0205	pH	03/02/92		6.00	N/A	92-01893	
WNW0205	pH	04/13/92		6.28	N/A	92-04005	
WNW0205	pH	04/13/92		6.19	N/A	92-04005	
WNW0205	pH	07/20/92		6.28	N/A	92-06754	
WNW0205	pH	07/20/92		6.26	N/A	92-06754	
WNW0205	pH	08/31/92		6.46	N/A	92-09222	
WNW0205	pH	08/31/92		6.45	N/A	92-09222	
WNW0205	pH	10/12/92		6.54	N/A	92-10851	
WNW0205	pH	10/12/92		6.55	N/A	92-10851	
WNW0205	pH	11/09/92		6.72	N/A	92-11683	
WNW0205	pH	11/09/92		6.72	N/A	92-11683	
WNW0205	pH	12/07/92		6.74	N/A	92-13325	
WNW0205	pH	12/07/92		6.72	N/A	92-13325	
WNW0205	pH	01/18/93		6.88	N/A	93-00341	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	pH	01/18/93		6.76	N/A	93-00341	
WNW0205	pH	02/24/93		6.78	N/A	93-01998	
WNW0205	pH	02/24/93		6.65	N/A	93-01998	
WNW0205	pH	04/26/93		6.64	N/A	93-03866	
WNW0205	pH	04/26/93		6.63	N/A	93-03866	
WNW0205	pH	06/02/93		6.47	N/A	93-05809	
WNW0205	pH	06/02/93		6.48	N/A	93-05809	
WNW0205	pH	07/19/93		6.67	N/A	93-07175	
WNW0205	pH	07/19/93		6.67	N/A	93-07175	
WNW0205	pH	11/09/93		6.52	N/A	93-11858	
WNW0205	pH	11/09/93		6.50	N/A	93-11858	
WNW0205	pH	11/09/93	ND < 10.00	10.00	N/A	93-11868	
WNW0205	pH	11/09/93	ND < 10.00	10.00	N/A	93-11868	
WNW0205	pH	02/21/94		6.57	N/A	94-01194	
WNW0205	pH	02/21/94		6.55	N/A	94-01194	
WNW0205	pH	05/12/94		6.77	N/A	94-03548	
WNW0205	pH	05/12/94		6.78	N/A	94-03548	
WNW0205	pH	05/12/94	ND < 10.00	10.00	N/A	94-03557	
WNW0205	pH	05/12/94	ND < 10.00	10.00	N/A	94-03557	
WNW0205	pH	07/05/94		6.61	N/A	94-06657	
WNW0205	pH	07/05/94		6.61	N/A	94-06657	
WNW0207	Cond	02/06/91		741.00	µmhos/cm	91-00986	
WNW0207	Cond	02/06/91		751.00	µmhos/cm	91-00986	
WNW0207	Cond	04/25/91		600.00	µmhos/cm	91-03052	
WNW0207	Cond	05/21/91		940.00	µmhos/cm	91-04065	
WNW0207	Cond	07/15/91		1737.00	µmhos/cm	91-06178	
WNW0207	Cond	08/28/91		943.00	µmhos/cm	91-07575	
WNW0207	Cond	08/28/91		966.00	µmhos/cm	91-07575	
WNW0207	Cond	10/28/91		969.00	µmhos/cm	91-09649	
WNW0207	Cond	10/28/91		961.00	µmhos/cm	91-09649	
WNW0207	Cond	11/26/91		958.00	µmhos/cm	91-11227	
WNW0207	Cond	11/26/91		957.00	µmhos/cm	91-11227	
WNW0207	Cond	01/20/92		748.00	µmhos/cm	92-00075	
WNW0207	Cond	01/20/92		697.00	µmhos/cm	92-00075	
WNW0207	Cond	03/02/92		872.00	µmhos/cm	92-01915	
WNW0207	Cond	03/02/92		904.00	µmhos/cm	92-01915	
WNW0207	Cond	04/13/92		850.00	µmhos/cm	92-04013	
WNW0207	Cond	04/13/92		818.00	µmhos/cm	92-04013	
WNW0207	Cond	07/24/92		992.00	µmhos/cm	92-06767	
WNW0207	Cond	07/24/92		956.00	µmhos/cm	92-06767	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	Cond	08/31/92		933.00	µmhos/cm	92-09230	
WNW0207	Cond	08/31/92		920.00	µmhos/cm	92-09230	
WNW0207	Cond	10/12/92		871.00	µmhos/cm	92-10859	
WNW0207	Cond	10/12/92		889.00	µmhos/cm	92-10859	
WNW0207	Cond	11/09/92		762.00	µmhos/cm	92-11691	
WNW0207	Cond	11/09/92		754.00	µmhos/cm	92-11691	
WNW0207	Cond	12/07/92		725.00	µmhos/cm	92-13351	
WNW0207	Cond	12/07/92		781.00	µmhos/cm	92-13351	
WNW0207	Cond	01/18/93		822.00	µmhos/cm	93-00349	
WNW0207	Cond	01/18/93		769.00	µmhos/cm	93-00349	
WNW0207	Cond	02/24/93		953.00	µmhos/cm	93-02018	
WNW0207	Cond	02/24/93		971.00	µmhos/cm	93-02018	
WNW0207	Cond	04/26/93		837.00	µmhos/cm	93-03874	
WNW0207	Cond	04/26/93		863.00	µmhos/cm	93-03874	
WNW0207	Cond	06/02/93		962.00	µmhos/cm	93-05817	
WNW0207	Cond	06/02/93		936.00	µmhos/cm	93-05817	
WNW0207	Cond	07/19/93		944.00	µmhos/cm	93-07183	
WNW0207	Cond	07/19/93		946.00	µmhos/cm	93-07183	
WNW0207	Cond	11/09/93		846.00	µmhos/cm	93-11792	
WNW0207	Cond	11/09/93		821.00	µmhos/cm	93-11792	
WNW0207	Cond	02/21/94		844.00	µmhos/cm	94-01200	
WNW0207	Cond	02/21/94		833.00	µmhos/cm	94-01200	
WNW0207	Cond	05/12/94		876.00	µmhos/cm	94-03573	
WNW0207	Cond	05/12/94		890.00	µmhos/cm	94-03573	
WNW0207	Cond	07/05/94		879.00	µmhos/cm	94-06663	
WNW0207	Cond	07/05/94		851.00	µmhos/cm	94-06663	
WNW0207	NPOC	04/25/91		51.00	mg/L	91-03055	
WNW0207	NPOC	05/21/91		13.00	mg/L	91-04069	
WNW0207	NPOC	07/15/91		2.70	mg/L	91-06182	
WNW0207	NPOC	08/28/91		2.40	mg/L	91-07579	
WNW0207	NPOC	10/28/91		85.00	mg/L	91-09652	
WNW0207	NPOC	11/26/91		3.40	mg/L	91-11231	
WNW0207	NPOC	01/20/92		4.00	mg/L	92-00076	
WNW0207	NPOC	03/02/92		3.50	mg/L	92-01916	
WNW0207	NPOC	04/13/92		1.90	mg/L	92-04014	
WNW0207	NPOC	04/13/92		1.90	mg/L	92-04014	
WNW0207	NPOC	07/24/92		2.70	mg/L	92-06768	
WNW0207	NPOC	08/31/92		2.40	mg/L	92-09231	
WNW0207	NPOC	10/12/92		2.60	mg/L	92-10860	
WNW0207	NPOC	11/09/92		3.80	mg/L	92-11692	
WNW0207	NPOC	12/07/92		3.00	mg/L	92-13352	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	NPOC	01/18/93		2.50	mg/L	93-00350	
WNW0207	NPOC	02/24/93		2.20	mg/L	93-02019	
WNW0207	NPOC	04/26/93		1.90	mg/L	93-03875	
WNW0207	NPOC	06/02/93		1.70	mg/L	93-05818	
WNW0207	NPOC	07/19/93		1.50	mg/L	93-07184	
WNW0207	NPOC	07/19/93		1.70	mg/L	93-07184	
WNW0207	NPOC	11/09/93		2.00	mg/L	93-11794	
WNW0207	NPOC	11/09/93		2.00	mg/L	93-11794	
WNW0207	NPOC	02/21/94		1.50	mg/L	94-01201	
WNW0207	NPOC	05/12/94		1.50	mg/L	94-03574	
WNW0207	NPOC	07/05/94		1.50	mg/L	94-06664	
WNW0207	NPOC	07/05/94		1.60	mg/L	94-06664	
WNW0207	TOX	04/25/91		19.00	µg/L	91-03055	
WNW0207	TOX	05/21/91		11.00	µg/L	91-04069	J
WNW0207	TOX	07/15/91		15.00	µg/L	91-06182	
WNW0207	TOX	08/28/91	ND<5.00	5.00	µg/L	91-07579	
WNW0207	TOX	10/28/91	ND<5.00	5.00	µg/L	91-09652	
WNW0207	TOX	11/26/91	ND<5.00	5.00	µg/L	91-11231	
WNW0207	TOX	11/26/91	ND<1.00	1.00	µg/L	91-11236	
WNW0207	TOX	01/20/92		7.80	µg/L	92-00076	
WNW0207	TOX	03/02/92		8.40	µg/L	92-01916	
WNW0207	TOX	03/02/92	ND<1.00	1.00	µg/L	92-01923	
WNW0207	TOX	04/13/92		8.80	µg/L	92-04014	
WNW0207	TOX	07/24/92		4.80	µg/L	92-06768	
WNW0207	TOX	07/24/92	ND<1.00	1.00	µg/L	92-06775	
WNW0207	TOX	08/31/92		7.20	µg/L	92-09231	
WNW0207	TOX	10/12/92		4.00	µg/L	92-10860	
WNW0207	TOX	11/09/92		6.20	µg/L	92-11692	
WNW0207	TOX	12/07/92		5.50	µg/L	92-13352	
WNW0207	TOX	12/07/92	ND<1.00	1.00	µg/L	92-13359	
WNW0207	TOX	01/18/93		5.90	µg/L	93-00350	
WNW0207	TOX	02/24/93		4.00	µg/L	93-02019	
WNW0207	TOX	04/26/93		7.40	µg/L	93-03875	
WNW0207	TOX	06/02/93		3.90	µg/L	93-05818	
WNW0207	TOX	07/19/93		3.20	µg/L	93-07184	
WNW0207	TOX	11/09/93		2.60	µg/L	93-11794	
WNW0207	TOX	02/21/94	ND<2.00	2.00	µg/L	94-01201	
WNW0207	TOX	05/12/94		4.30	µg/L	94-03574	
WNW0207	TOX	07/05/94	ND<2.00	2.00	µg/L	94-06664	
WNW0207	pH	02/06/91		6.33	N/A	91-00986	
WNW0207	pH	02/06/91		6.31	N/A	91-00986	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	pH	04/25/91		6.03	N/A	91-03052	
WNW0207	pH	05/21/91		6.55	N/A	91-04065	
WNW0207	pH	07/15/91		6.60	N/A	91-06178	
WNW0207	pH	08/28/91		6.74	N/A	91-07575	
WNW0207	pH	08/28/91		6.66	N/A	91-07575	
WNW0207	pH	10/28/91		6.57	N/A	91-09649	
WNW0207	pH	10/28/91		6.54	N/A	91-09649	
WNW0207	pH	11/26/91		6.83	N/A	91-11227	
WNW0207	pH	11/26/91		7.06	N/A	91-11227	
WNW0207	pH	01/20/92		6.22	N/A	92-00075	
WNW0207	pH	01/20/92		6.14	N/A	92-00075	
WNW0207	pH	03/02/92		6.28	N/A	92-01915	
WNW0207	pH	03/02/92		6.27	N/A	92-01915	
WNW0207	pH	04/13/92		6.40	N/A	92-04013	
WNW0207	pH	04/13/92		6.30	N/A	92-04013	
WNW0207	pH	07/24/92		6.54	N/A	92-06767	
WNW0207	pH	07/24/92		6.47	N/A	92-06767	
WNW0207	pH	08/31/92		6.52	N/A	92-09230	
WNW0207	pH	08/31/92		6.54	N/A	92-09230	
WNW0207	pH	10/12/92		6.64	N/A	92-10859	
WNW0207	pH	10/12/92		6.55	N/A	92-10859	
WNW0207	pH	11/09/92		6.45	N/A	92-11691	
WNW0207	pH	11/09/92		6.46	N/A	92-11691	
WNW0207	pH	12/07/92		6.58	N/A	92-13351	
WNW0207	pH	12/07/92		6.50	N/A	92-13351	
WNW0207	pH	01/18/93		6.60	N/A	93-00349	
WNW0207	pH	01/18/93		6.49	N/A	93-00349	
WNW0207	pH	02/24/93		6.75	N/A	93-02018	
WNW0207	pH	02/24/93		6.45	N/A	93-02018	
WNW0207	pH	04/26/93		6.54	N/A	93-03874	
WNW0207	pH	04/26/93		6.51	N/A	93-03874	
WNW0207	pH	06/02/93		6.55	N/A	93-05817	
WNW0207	pH	06/02/93		6.47	N/A	93-05817	
WNW0207	pH	07/19/93		6.58	N/A	93-07183	
WNW0207	pH	07/19/93		6.59	N/A	93-07183	
WNW0207	pH	11/09/93		6.39	N/A	93-11792	
WNW0207	pH	11/09/93		6.27	N/A	93-11792	
WNW0207	pH	02/21/94		6.69	N/A	94-01200	
WNW0207	pH	02/21/94		6.61	N/A	94-01200	
WNW0207	pH	05/12/94		6.93	N/A	94-03573	
WNW0207	pH	05/12/94		6.91	N/A	94-03573	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	pH	07/05/94		6.78	N/A	94-06663	
WNW0207	pH	07/05/94		6.69	N/A	94-06663	
WNW8605	Cond	02/27/91		765.00	µmhos/cm	91-01505	
WNW8605	Cond	02/27/91		787.00	µmhos/cm	91-01505	
WNW8605	Cond	04/25/91		524.00	µmhos/cm	91-03021	
WNW8605	Cond	06/05/91		920.00	µmhos/cm	91-04896	
WNW8605	Cond	08/05/91		1028.00	µmhos/cm	91-06810	
WNW8605	Cond	09/16/91		861.00	µmhos/cm	91-08278	
WNW8605	Cond	09/16/91		868.00	µmhos/cm	91-08278	
WNW8605	Cond	10/21/91		889.00	µmhos/cm	91-09579	
WNW8605	Cond	10/21/91		886.00	µmhos/cm	91-09579	
WNW8605	Cond	12/11/91		998.00	µmhos/cm	91-12195	
WNW8605	Cond	12/11/91		1033.00	µmhos/cm	91-12195	
WNW8605	Cond	02/13/92		1237.00	µmhos/cm	92-00374	
WNW8605	Cond	02/13/92		832.00	µmhos/cm	92-00374	
WNW8605	Cond	03/25/92		1149.00	µmhos/cm	92-03305	
WNW8605	Cond	03/25/92		1173.00	µmhos/cm	92-03305	
WNW8605	Cond	07/22/92		881.00	µmhos/cm	92-04424	
WNW8605	Cond	07/22/92		916.00	µmhos/cm	92-04424	
WNW8605	Cond	08/13/92		1040.00	µmhos/cm	92-08453	
WNW8605	Cond	08/13/92		1095.00	µmhos/cm	92-08453	
WNW8605	Cond	09/16/92		1087.00	µmhos/cm	92-09734	
WNW8605	Cond	09/16/92		1133.00	µmhos/cm	92-09734	
WNW8605	Cond	10/28/92		1058.00	µmhos/cm	92-11305	
WNW8605	Cond	10/28/92		1098.00	µmhos/cm	92-11305	
WNW8605	Cond	11/18/92		681.00	µmhos/cm	92-12374	
WNW8605	Cond	11/18/92		760.00	µmhos/cm	92-12374	
WNW8605	Cond	12/16/92		837.00	µmhos/cm	92-14137	
WNW8605	Cond	12/16/92		832.00	µmhos/cm	92-14137	
WNW8605	Cond	02/08/93		805.00	µmhos/cm	93-00847	
WNW8605	Cond	02/08/93		874.00	µmhos/cm	93-00847	
WNW8605	Cond	03/08/93		1026.00	µmhos/cm	93-02862	
WNW8605	Cond	03/08/93		1075.00	µmhos/cm	93-02862	
WNW8605	Cond	05/11/93		876.00	µmhos/cm	93-05189	
WNW8605	Cond	05/11/93		919.00	µmhos/cm	93-05189	
WNW8605	Cond	06/22/93		1073.00	µmhos/cm	93-06140	
WNW8605	Cond	06/22/93		1083.00	µmhos/cm	93-06140	
WNW8605	Cond	08/03/93		1168.00	µmhos/cm	93-07830	
WNW8605	Cond	08/03/93		1175.00	µmhos/cm	93-07830	
WNW8605	Cond	12/07/93		749.00	µmhos/cm	93-13008	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	Cond	12/07/93		843.00	μmhos/cm	93-13008	
WNW8605	Cond	03/15/94		812.00	μmhos/cm	94-02107	
WNW8605	Cond	03/15/94		815.00	μmhos/cm	94-02107	
WNW8605	Cond	05/10/94		1070.00	μmhos/cm	94-04190	
WNW8605	Cond	07/12/94		995.00	μmhos/cm	94-07058	
WNW8605	Cond	07/12/94		1090.00	μmhos/cm	94-07058	
WNW8605	NPOC	01/17/91		7.70	mg/L	91-00532	
WNW8605	NPOC	04/25/91		15.10	mg/L	91-03024	J
WNW8605	NPOC	06/05/91	ND < 1.00	1.00	mg/L	91-04898	J
WNW8605	NPOC	08/05/91		12.80	mg/L	91-06813	
WNW8605	NPOC	09/16/91		13.80	mg/L	91-08281	
WNW8605	NPOC	10/21/91		12.00	mg/L	91-09582	
WNW8605	NPOC	12/11/91		10.20	mg/L	91-12199	
WNW8605	NPOC	02/13/92		10.30	mg/L	92-00375	
WNW8605	NPOC	03/25/92		11.90	mg/L	92-03306	
WNW8605	NPOC	07/22/92		10.50	mg/L	92-04425	
WNW8605	NPOC	08/13/92		11.20	mg/L	92-08454	
WNW8605	NPOC	09/16/92		13.30	mg/L	92-09744	
WNW8605	NPOC	10/28/92		13.40	mg/L	92-11306	
WNW8605	NPOC	11/18/92		9.10	mg/L	92-12375	
WNW8605	NPOC	12/16/92		10.80	mg/L	92-14138	
WNW8605	NPOC	02/08/93		8.80	mg/L	93-00848	
WNW8605	NPOC	03/08/93		8.90	mg/L	93-02864	
WNW8605	NPOC	05/11/93		15.80	mg/L	93-05190	
WNW8605	NPOC	06/22/93		9.50	mg/L	93-06141	J
WNW8605	NPOC	08/03/93		6.00	mg/L	93-07831	
WNW8605	NPOC	03/15/94		6.90	mg/L	94-02108	J
WNW8605	NPOC	05/10/94		4.25	mg/L	94-04191	
WNW8605	NPOC	07/12/94		19.20	mg/L	94-07059	R
WNW8605	TOX	01/17/91		11.00	μg/L	91-00531	
WNW8605	TOX	02/27/91		11.00	μg/L	91-01508	
WNW8605	TOX	04/25/91		32.80	μg/L	91-03024	
WNW8605	TOX	06/05/91		367.00	μg/L	91-04898	R
WNW8605	TOX	08/05/91		40.90	μg/L	91-06813	
WNW8605	TOX	09/16/91		56.70	μg/L	91-08281	
WNW8605	TOX	10/21/91		26.40	μg/L	91-09582	
WNW8605	TOX	12/11/91		10.50	μg/L	91-12199	J
WNW8605	TOX	12/11/91	ND < 2.40	2.40	μg/L	91-12204	
WNW8605	TOX	02/13/92		34.70	μg/L	92-00375	
WNW8605	TOX	03/25/92		18.80	μg/L	92-03306	J
WNW8605	TOX	03/25/92	ND < 2.40	2.40	μg/L	92-03313	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	TOX	07/22/92		42.80	µg/L	92-04425	
WNW8605	TOX	08/13/92		61.80	µg/L	92-08454	
WNW8605	TOX	08/13/92	ND<4.90	4.90	µg/L	92-08461	
WNW8605	TOX	09/16/92		32.90	µg/L	92-09744	
WNW8605	TOX	10/28/92		37.00	µg/L	92-11306	
WNW8605	TOX	11/18/92		18.20	µg/L	92-12375	
WNW8605	TOX	12/16/92		25.70	µg/L	92-14138	
WNW8605	TOX	12/16/92	ND<5.00	5.00	µg/L	92-14145	
WNW8605	TOX	02/08/93		11.00	µg/L	93-00848	
WNW8605	TOX	03/08/93		11.00	µg/L	93-02864	
WNW8605	TOX	05/11/93	ND<10.00	10.00	µg/L	93-05190	
WNW8605	TOX	06/22/93		24.00	µg/L	93-06141	
WNW8605	TOX	08/03/93		2150.00	µg/L	93-07831	F
WNW8605	TOX	12/07/93	ND<1.00	1.00	µg/L	93-13018	
WNW8605	TOX	03/15/94		410.00	µg/L	94-02108	J
WNW8605	TOX	05/10/94		180.00	µg/L	94-04191	
WNW8605	TOX	05/10/94	ND<0.50	0.50	µg/L	94-04200	
WNW8605	TOX	07/12/94		75.20	µg/L	94-07059	
WNW8605	pH	02/27/91		6.84	N/A	91-01505	
WNW8605	pH	02/27/91		6.87	N/A	91-01505	
WNW8605	pH	04/25/91		6.59	N/A	91-03021	
WNW8605	pH	06/05/91		6.54	N/A	91-04896	
WNW8605	pH	08/05/91		6.59	N/A	91-06810	
WNW8605	pH	09/16/91		6.50	N/A	91-08278	
WNW8605	pH	09/16/91		6.54	N/A	91-08278	
WNW8605	pH	10/21/91		6.74	N/A	91-09579	
WNW8605	pH	10/21/91		6.71	N/A	91-09579	
WNW8605	pH	12/11/91		6.45	N/A	91-12195	
WNW8605	pH	12/11/91		6.53	N/A	91-12195	
WNW8605	pH	02/13/92		6.40	N/A	92-00374	
WNW8605	pH	02/13/92		6.39	N/A	92-00374	
WNW8605	pH	03/25/92		6.44	N/A	92-03305	
WNW8605	pH	03/25/92		6.45	N/A	92-03305	
WNW8605	pH	07/22/92		6.55	N/A	92-04424	
WNW8605	pH	07/22/92		6.47	N/A	92-04424	
WNW8605	pH	08/13/92		6.54	N/A	92-08453	
WNW8605	pH	08/13/92		6.51	N/A	92-08453	
WNW8605	pH	09/16/92		6.60	N/A	92-09734	
WNW8605	pH	09/16/92		6.47	N/A	92-09734	
WNW8605	pH	10/28/92		6.31	N/A	92-11305	
WNW8605	pH	10/28/92		6.36	N/A	92-11305	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	pH	11/18/92		6.88	N/A	92-12374	
WNW8605	pH	11/18/92		6.71	N/A	92-12374	
WNW8605	pH	12/16/92		6.47	N/A	92-14137	
WNW8605	pH	12/16/92		6.52	N/A	92-14137	
WNW8605	pH	02/08/93		6.78	N/A	93-00847	
WNW8605	pH	02/08/93		6.71	N/A	93-00847	
WNW8605	pH	03/08/93		6.51	N/A	93-02862	
WNW8605	pH	03/08/93		6.48	N/A	93-02862	
WNW8605	pH	05/11/93		6.56	N/A	93-05189	
WNW8605	pH	05/11/93		6.54	N/A	93-05189	
WNW8605	pH	06/22/93		6.70	N/A	93-06140	
WNW8605	pH	06/22/93		6.78	N/A	93-06140	
WNW8605	pH	08/03/93		6.57	N/A	93-07830	
WNW8605	pH	08/03/93		6.59	N/A	93-07830	
WNW8605	pH	12/07/93		6.49	N/A	93-13008	
WNW8605	pH	12/07/93		6.54	N/A	93-13008	
WNW8605	pH	12/07/93	ND < 10.00	10.00	N/A	93-13017	
WNW8605	pH	12/07/93	ND < 10.00	10.00	N/A	93-13017	R
WNW8605	pH	12/07/93	ND < 10.00	10.00	N/A	93-13017	UJ
WNW8605	pH	12/07/93	ND < 10.00	10.00	N/A	93-13017	R
WNW8605	pH	03/15/94		6.88	N/A	94-02107	
WNW8605	pH	03/15/94		6.76	N/A	94-02107	
WNW8605	pH	05/10/94		6.87	N/A	94-04190	
WNW8605	pH	05/10/94	ND < 9.90	9.90	N/A	94-04198	
WNW8605	pH	05/10/94	ND < 9.90	9.90	N/A	94-04198	R
WNW8605	pH	05/10/94	ND < 9.90	9.90	N/A	94-04198	UJ
WNW8605	pH	05/10/94	ND < 9.90	9.90	N/A	94-04198	R
WNW8605	pH	07/12/94		6.81	N/A	94-07058	
WNW8605	pH	07/12/94		6.72	N/A	94-07058	
WNW8606	Cond	01/14/91		1749.00	µmhos/cm	91-00249	
WNW8606	Cond	01/14/91		1751.00	µmhos/cm	91-00249	
WNW8606	Cond	02/18/91		2200.00	µmhos/cm	91-01166	
WNW8606	Cond	02/18/91		2200.00	µmhos/cm	91-01166	
WNW8606	Cond	04/17/91		1938.00	µmhos/cm	91-02763	
WNW8606	Cond	04/17/91		1925.00	µmhos/cm	91-02763	
WNW8606	Cond	05/15/91		2090.00	µmhos/cm	91-03825	
WNW8606	Cond	07/08/91		4580.00	µmhos/cm	91-05918	
WNW8606	Cond	07/08/91		4580.00	µmhos/cm	91-05918	
WNW8606	Cond	08/19/91		2280.00	µmhos/cm	91-07313	
WNW8606	Cond	08/19/91		2280.00	µmhos/cm	91-07313	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8606	Cond	10/07/91		2070.00	µmhos/cm	91-09101	
WNW8606	Cond	10/07/91		2060.00	µmhos/cm	91-09101	
WNW8606	Cond	11/18/91		2340.00	µmhos/cm	91-10659	
WNW8606	Cond	11/18/91		2390.00	µmhos/cm	91-10659	
WNW8606	Cond	01/13/92		2550.00	µmhos/cm	92-00334	
WNW8606	Cond	01/13/92		2560.00	µmhos/cm	92-00334	
WNW8606	Cond	02/24/92		3290.00	µmhos/cm	92-01559	
WNW8606	Cond	02/24/92		3290.00	µmhos/cm	92-01559	
WNW8606	Cond	04/06/92		4900.00	µmhos/cm	92-03894	
WNW8606	Cond	04/06/92		4840.00	µmhos/cm	92-03894	
WNW8606	Cond	07/20/92		6150.00	µmhos/cm	92-06416	
WNW8606	Cond	07/20/92		6130.00	µmhos/cm	92-06416	
WNW8606	Cond	08/31/92		4880.00	µmhos/cm	92-09238	
WNW8606	Cond	08/31/92		4880.00	µmhos/cm	92-09238	
WNW8606	Cond	10/12/92		3600.00	µmhos/cm	92-10903	
WNW8606	Cond	10/12/92		3610.00	µmhos/cm	92-10903	
WNW8606	Cond	11/09/92		2900.00	µmhos/cm	92-11699	
WNW8606	Cond	11/09/92		2900.00	µmhos/cm	92-11699	
WNW8606	Cond	12/07/92		196.00	µmhos/cm	92-13663	
WNW8606	Cond	12/07/92		213.00	µmhos/cm	92-13663	
WNW8606	Cond	01/18/93		2680.00	µmhos/cm	93-00357	
WNW8606	Cond	01/18/93		2670.00	µmhos/cm	93-00357	
WNW8606	Cond	02/24/93		2260.00	µmhos/cm	93-02038	
WNW8606	Cond	02/24/93		2290.00	µmhos/cm	93-02038	
WNW8606	Cond	04/26/93		2730.00	µmhos/cm	93-03918	
WNW8606	Cond	04/26/93		2720.00	µmhos/cm	93-03918	
WNW8606	Cond	06/02/93		3010.00	µmhos/cm	93-05825	
WNW8606	Cond	06/02/93		3040.00	µmhos/cm	93-05825	
WNW8606	Cond	07/19/93		2360.00	µmhos/cm	93-07191	
WNW8606	Cond	07/19/93		2370.00	µmhos/cm	93-07191	
WNW8606	Cond	11/11/93		4170.00	µmhos/cm	93-11990	
WNW8606	Cond	11/11/93		4160.00	µmhos/cm	93-11990	
WNW8606	Cond	02/21/94		6780.00	µmhos/cm	94-01206	
WNW8606	Cond	02/21/94		6790.00	µmhos/cm	94-01206	
WNW8606	Cond	05/12/94		3440.00	µmhos/cm	94-03591	
WNW8606	Cond	05/12/94		3400.00	µmhos/cm	94-03591	
WNW8606	Cond	07/05/94		2570.00	µmhos/cm	94-06628	
WNW8606	Cond	07/05/94		2580.00	µmhos/cm	94-06628	
WNW8606	NPOC	01/14/91		3.60	mg/L	91-00253	
WNW8606	NPOC	02/18/91		3.70	mg/L	91-01170	
WNW8606	NPOC	04/17/91		3.30	mg/L	91-02766	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8606	NPOC	05/15/91		2.40	mg/L	91-03829	
WNW8606	NPOC	07/08/91		3.60	mg/L	91-05922	
WNW8606	NPOC	08/19/91		5.80	mg/L	91-07318	
WNW8606	NPOC	10/07/91		2.90	mg/L	91-09104	
WNW8606	NPOC	11/18/91		6.40	mg/L	91-10663	
WNW8606	NPOC	01/13/92		2.90	mg/L	92-00335	
WNW8606	NPOC	02/24/92		3.20	mg/L	92-01560	
WNW8606	NPOC	04/06/92		2.80	mg/L	92-03895	
WNW8606	NPOC	04/06/92		2.40	mg/L	92-03954	
WNW8606	NPOC	07/20/92		4.10	mg/L	92-06417	
WNW8606	NPOC	08/31/92		6.20	mg/L	92-09239	
WNW8606	NPOC	10/12/92		6.70	mg/L	92-10904	
WNW8606	NPOC	10/12/92		6.70	mg/L	92-10904	
WNW8606	NPOC	11/09/92		5.60	mg/L	92-11700	
WNW8606	NPOC	11/09/92		5.70	mg/L	92-11700	
WNW8606	NPOC	12/07/92		3.90	mg/L	92-13664	
WNW8606	NPOC	01/18/93		2.80	mg/L	93-00358	
WNW8606	NPOC	01/18/93		2.70	mg/L	93-00532	
WNW8606	NPOC	02/24/93		4.80	mg/L	93-02039	
WNW8606	NPOC	04/26/93		2.50	mg/L	93-03919	
WNW8606	NPOC	06/02/93		3.40	mg/L	93-05826	
WNW8606	NPOC	06/02/93		3.50	mg/L	93-05826	
WNW8606	NPOC	07/19/93		4.90	mg/L	93-07192	
WNW8606	NPOC	07/19/93		4.90	mg/L	93-07192	
WNW8606	NPOC	07/19/93		5.20	mg/L	93-07192	
WNW8606	NPOC	07/19/93		5.10	mg/L	93-07192	
WNW8606	NPOC	11/11/93		3.30	mg/L	93-11991	
WNW8606	NPOC	11/11/93		3.30	mg/L	93-11991	
WNW8606	NPOC	02/21/94		3.70	mg/L	94-01207	
WNW8606	NPOC	05/12/94		2.40	mg/L	94-03592	
WNW8606	NPOC	07/05/94		2.40	mg/L	94-06669	
WNW8606	NPOC	07/05/94		2.50	mg/L	94-06669	
WNW8606	TOX	01/14/91		11.00	µg/L	91-00252	
WNW8606	TOX	02/18/91		30.00	µg/L	91-01169	
WNW8606	TOX	04/17/91		22.00	µg/L	91-02766	
WNW8606	TOX	05/15/91		960.00	µg/L	91-03829	
WNW8606	TOX	07/08/91		47.00	µg/L	91-05922	
WNW8606	TOX	08/19/91		16.00	µg/L	91-07318	
WNW8606	TOX	10/07/91		16.00	µg/L	91-09104	
WNW8606	TOX	11/18/91		18.00	µg/L	91-10663	
WNW8606	TOX	11/18/91	ND < 1.00	1.00	µg/L	91-10668	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8606	TOX	01/13/92		29.20	µg/L	92-00335	
WNW8606	TOX	02/24/92		31.40	µg/L	92-01560	
WNW8606	TOX	02/24/92	ND < 1.00	1.00	µg/L	92-01567	
WNW8606	TOX	04/06/92		98.80	µg/L	92-03895	
WNW8606	TOX	07/20/92	ND < 1.00	1.00	µg/L	92-06424	UJ
WNW8606	TOX	07/20/92		28.00	µg/L	92-07865	J
WNW8606	TOX	08/31/92		88.00	µg/L	92-09239	
WNW8606	TOX	10/12/92		101.00	µg/L	92-10904	
WNW8606	TOX	11/09/92		105.00	µg/L	92-11700	
WNW8606	TOX	12/07/92		61.00	µg/L	92-13664	
WNW8606	TOX	12/07/92	ND < 1.00	1.00	µg/L	92-13671	
WNW8606	TOX	01/18/93		116.20	µg/L	93-00358	
WNW8606	TOX	02/24/93		145.00	µg/L	93-02039	
WNW8606	TOX	04/26/93		9.50	µg/L	93-03919	
WNW8606	TOX	06/02/93		16.70	µg/L	93-05826	
WNW8606	TOX	07/19/93		32.00	µg/L	93-07192	
WNW8606	TOX	11/11/93		13.20	µg/L	93-11991	
WNW8606	TOX	03/02/94		42.50	µg/L	94-01916	
WNW8606	TOX	05/12/94		10.00	µg/L	94-03592	
WNW8606	TOX	07/05/94		29.80	µg/L	94-06669	
WNW8606	pH	01/14/91		6.79	N/A	91-00249	
WNW8606	pH	01/14/91		6.75	N/A	91-00249	
WNW8606	pH	02/18/91		6.71	N/A	91-01166	
WNW8606	pH	02/18/91		6.70	N/A	91-01166	
WNW8606	pH	04/17/91		6.71	N/A	91-02763	
WNW8606	pH	04/17/91		6.69	N/A	91-02763	
WNW8606	pH	05/15/91		6.47	N/A	91-03825	
WNW8606	pH	07/08/91		6.26	N/A	91-05918	
WNW8606	pH	07/08/91		6.28	N/A	91-05918	
WNW8606	pH	08/19/91		6.54	N/A	91-07313	
WNW8606	pH	08/19/91		6.54	N/A	91-07313	
WNW8606	pH	10/07/91		6.65	N/A	91-09101	
WNW8606	pH	10/07/91		6.65	N/A	91-09101	
WNW8606	pH	11/18/91		6.39	N/A	91-10659	
WNW8606	pH	11/18/91		6.36	N/A	91-10659	
WNW8606	pH	01/13/92		6.13	N/A	92-00334	
WNW8606	pH	01/13/92		6.12	N/A	92-00334	
WNW8606	pH	02/24/92		6.43	N/A	92-01559	
WNW8606	pH	02/24/92		6.45	N/A	92-01559	
WNW8606	pH	04/06/92		6.28	N/A	92-03894	
WNW8606	pH	04/06/92		6.23	N/A	92-03894	

MSU Groundwater Contamination Indicator Parameter Data
from 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8606	pH	07/20/92		6.36	N/A	92-06416	
WNW8606	pH	07/20/92		6.38	N/A	92-06416	
WNW8606	pH	08/31/92		6.50	N/A	92-09238	
WNW8606	pH	08/31/92		6.50	N/A	92-09238	
WNW8606	pH	10/12/92		6.61	N/A	92-10903	
WNW8606	pH	10/12/92		6.62	N/A	92-10903	
WNW8606	pH	11/09/92		6.77	N/A	92-11699	
WNW8606	pH	11/09/92		6.77	N/A	92-11699	
WNW8606	pH	12/07/92		6.71	N/A	92-13663	
WNW8606	pH	12/07/92		6.70	N/A	92-13663	
WNW8606	pH	01/18/93		6.84	N/A	93-00357	
WNW8606	pH	01/18/93		6.76	N/A	93-00357	
WNW8606	pH	02/24/93		6.85	N/A	93-02038	
WNW8606	pH	02/24/93		6.72	N/A	93-02038	
WNW8606	pH	04/26/93		6.70	N/A	93-03918	
WNW8606	pH	04/26/93		6.67	N/A	93-03918	
WNW8606	pH	06/02/93		6.50	N/A	93-05825	
WNW8606	pH	06/02/93		6.51	N/A	93-05825	
WNW8606	pH	07/19/93		6.73	N/A	93-07191	
WNW8606	pH	07/19/93		6.71	N/A	93-07191	
WNW8606	pH	11/11/93		6.50	N/A	93-11990	
WNW8606	pH	11/11/93		6.51	N/A	93-11990	
WNW8606	pH	02/21/94		6.63	N/A	94-01206	
WNW8606	pH	02/21/94		6.57	N/A	94-01206	
WNW8606	pH	05/12/94		6.83	N/A	94-03591	
WNW8606	pH	05/12/94		6.82	N/A	94-03591	
WNW8606	pH	07/05/94		6.56	N/A	94-06628	
WNW8606	pH	07/05/94		6.56	N/A	94-06628	

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Appendix D

Expanded Groundwater Program Data

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MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Till-Sand							
WNW0202	cl	11/15/93		35.50	mg/L	93-11832	
WNW0202	cl	05/23/94		40.00	mg/L	94-03512	
WNW0202	co3	11/15/93		134.00	mg/L	93-11832	
WNW0202	co3	05/23/94		43.80	mg/L	94-03512	
WNW0202	hco3	11/15/93	ND<1.00	1.00	mg/L	93-11832	
WNW0202	hco3	05/23/94		557.00	mg/L	94-03512	
WNW0202	hydroxyl	11/15/93		317.00	mg/L	93-11832	
WNW0202	hydroxyl	05/23/94		513.00	mg/L	94-03512	
WNW0202	nh3	11/15/93		0.52	mg/L	93-11827	
WNW0202	nh3	11/15/93		0.53	mg/L	93-11827	
WNW0202	nh3	05/23/94		0.31	mg/L	94-03509	
WNW0202	nh3	05/23/94		0.32	mg/L	94-03509	
WNW0202	no3no2	11/15/93	ND<0.05	0.05	mg/L	93-11829	
WNW0202	no3no2	05/23/94		0.07	mg/L	94-03511	
WNW0202	po4_totl	11/15/93	ND<0.05	0.05	mg/L	93-11829	
WNW0202	po4_totl	05/23/94	ND<0.02	0.02	mg/L	94-03511	
WNW0202	silica	11/15/93		8.60	mg/L	93-11832	
WNW0202	silica	05/23/94		6.20	mg/L	94-03512	
WNW0202	so4	11/15/93		30.40	mg/L	93-11832	
WNW0202	so4	05/23/94		21.00	mg/L	94-03512	
WNW0202	sulfide	11/15/93	ND<1.00	1.00	mg/L	93-11833	
WNW0202	sulfide	05/23/94	ND<1.00	1.00	mg/L	94-03514	
WNW0204	cl	11/09/93		91.60	mg/L	93-11779	
WNW0204	cl	05/12/94		89.90	mg/L	94-03542	
WNW0204	co3	11/09/93	ND<1.00	1.00	mg/L	93-11779	
WNW0204	co3	05/12/94	ND<1.00	1.00	mg/L	94-03542	
WNW0204	hco3	11/09/93		138.00	mg/L	93-11779	
WNW0204	hco3	05/12/94		129.00	mg/L	94-03542	
WNW0204	hydroxyl	11/09/93	ND<1.00	1.00	mg/L	93-11779	
WNW0204	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03542	
WNW0204	nh3	11/09/93		0.14	mg/L	93-11776	
WNW0204	nh3	05/12/94		0.17	mg/L	94-03543	
WNW0204	nh3	05/12/94		0.17	mg/L	94-03543	
WNW0204	no3no2	11/09/93	ND<0.05	0.05	mg/L	93-11778	
WNW0204	no3no2	05/12/94		0.04	mg/L	94-03540	
WNW0204	po4_totl	11/09/93	ND<0.05	0.05	mg/L	93-11778	
WNW0204	po4_totl	05/12/94	ND<0.02	0.02	mg/L	94-03540	
WNW0204	silica	11/09/93		10.50	mg/L	93-11779	
WNW0204	silica	05/12/94		12.70	mg/L	94-03542	
WNW0204	so4	11/09/93		41.10	mg/L	93-11779	
WNW0204	so4	05/12/94		30.90	mg/L	94-03542	
WNW0204	sulfide	11/09/93	ND<1.00	1.00	mg/L	93-11782	

MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	sulfide	05/12/94	ND < 1.00	1.00	mg/L	94-03547	
WNW0206	cl	11/09/93		80.90	mg/L	93-11788	
WNW0206	cl	05/12/94		98.10	mg/L	94-03569	
WNW0206	co3	11/09/93	ND < 1.00	1.00	mg/L	93-11788	
WNW0206	co3	05/12/94	ND < 1.00	1.00	mg/L	94-03569	
WNW0206	hco3	11/09/93		158.00	mg/L	93-11788	
WNW0206	hco3	05/12/94		170.00	mg/L	94-03569	
WNW0206	hydroxyl	11/09/93	ND < 1.00	1.00	mg/L	93-11788	
WNW0206	hydroxyl	05/12/94	ND < 1.00	1.00	mg/L	94-03569	
WNW0206	nh3	11/09/93		0.07	mg/L	93-11785	
WNW0206	nh3	05/12/94		0.08	mg/L	94-03566	
WNW0206	no3no2	11/09/93	ND < 0.05	0.05	mg/L	93-11787	
WNW0206	no3no2	05/12/94		0.04	mg/L	94-03568	
WNW0206	po4_totl	11/09/93		0.70	mg/L	93-11787	
WNW0206	po4_totl	05/12/94		0.04	mg/L	94-03568	
WNW0206	silica	11/09/93		11.10	mg/L	93-11788	
WNW0206	silica	05/12/94		13.20	mg/L	94-03569	
WNW0206	so4	11/09/93		33.10	mg/L	93-11788	
WNW0206	so4	05/12/94		28.00	mg/L	94-03569	
WNW0206	sulfide	11/09/93	ND < 1.00	1.00	mg/L	93-11791	
WNW0206	sulfide	05/12/94	ND < 1.00	1.00	mg/L	94-03572	
WNW0208	cl	11/09/93		1.00	mg/L	93-11806	
WNW0208	cl	05/16/94		1.30	mg/L	94-03587	
WNW0208	co3	11/09/93	ND < 1.00	1.00	mg/L	93-11806	
WNW0208	co3	05/16/94	ND < 1.00	1.00	mg/L	94-03587	
WNW0208	hco3	11/09/93		132.00	mg/L	93-11806	
WNW0208	hco3	05/16/94		131.00	mg/L	94-03587	
WNW0208	hydroxyl	11/09/93	ND < 1.00	1.00	mg/L	93-11806	
WNW0208	hydroxyl	05/16/94	ND < 1.00	1.00	mg/L	94-03587	
WNW0208	nh3	11/09/93		0.15	mg/L	93-11803	
WNW0208	nh3	05/16/94		0.15	mg/L	94-03584	
WNW0208	nh3	05/16/94		0.15	mg/L	94-03584	
WNW0208	no3no2	11/09/93	ND < 0.05	0.05	mg/L	93-11805	
WNW0208	no3no2	05/16/94	ND < 0.05	0.05	mg/L	94-03586	
WNW0208	po4_totl	11/09/93		0.08	mg/L	93-11805	
WNW0208	po4_totl	05/16/94	ND < 0.02	0.02	mg/L	94-03586	
WNW0208	silica	11/09/93		9.60	mg/L	93-11806	
WNW0208	silica	05/16/94		11.00	mg/L	94-03587	
WNW0208	so4	11/09/93		23.10	mg/L	93-11806	
WNW0208	so4	05/16/94		21.90	mg/L	94-03587	
WNW0208	sulfide	11/09/93		1.20	mg/L	93-11810	
WNW0208	sulfide	05/16/94		1.10	mg/L	94-03590	

MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Sand And Gravel							
WNW0201	cl	11/09/93		360.00	mg/L	93-11816	
WNW0201	cl	05/12/94		777.00	mg/L	94-03496	
WNW0201	co3	11/09/93	ND<1.00	1.00	mg/L	93-11816	
WNW0201	co3	05/12/94	ND<1.00	1.00	mg/L	94-03496	
WNW0201	hco3	11/09/93		162.00	mg/L	93-11816	
WNW0201	hco3	05/12/94		108.00	mg/L	94-03496	
WNW0201	hydroxyl	11/09/93	ND<1.00	1.00	mg/L	93-11816	
WNW0201	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03496	
WNW0201	nh3	11/11/93	ND<0.05	0.05	mg/L	93-11811	
WNW0201	nh3	05/12/94	ND<0.05	0.05	mg/L	94-03493	
WNW0201	no3no2	11/09/93		1.30	mg/L	93-11813	
WNW0201	no3no2	05/12/94		2.70	mg/L	94-03495	
WNW0201	po4_totl	11/09/93	ND<0.05	0.05	mg/L	93-11813	
WNW0201	po4_totl	05/12/94	ND<0.02	0.02	mg/L	94-03495	
WNW0201	silica	11/09/93		4.50	mg/L	93-11816	
WNW0201	silica	05/12/94		3.60	mg/L	94-03496	
WNW0201	so4	11/09/93		30.20	mg/L	93-11816	
WNW0201	so4	05/12/94		31.90	mg/L	94-03496	
WNW0201	sulfide	11/09/93	ND<1.00	1.00	mg/L	93-11817	
WNW0201	sulfide	05/12/94	ND<1.00	1.00	mg/L	94-03498	
WNW0203	cl	11/09/93		600.00	mg/L	93-11844	
WNW0203	cl	05/12/94		1160.00	mg/L	94-03528	
WNW0203	cl	05/12/94		1170.00	mg/L	94-03602	
WNW0203	co3	11/09/93	ND<1.00	1.00	mg/L	93-11844	
WNW0203	co3	05/12/94	ND<1.00	1.00	mg/L	94-03602	
WNW0203	co3	05/12/94	ND<1.00	1.00	mg/L	94-03528	
WNW0203	hco3	11/09/93		250.00	mg/L	93-11844	
WNW0203	hco3	05/12/94		197.00	mg/L	94-03528	
WNW0203	hco3	05/12/94		198.00	mg/L	94-03602	
WNW0203	hydroxyl	11/09/93	ND<1.00	1.00	mg/L	93-11844	
WNW0203	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03528	
WNW0203	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03602	
WNW0203	nh3	11/09/93	ND<0.05	0.05	mg/L	93-11838	
WNW0203	nh3	05/12/94	ND<0.05	0.05	mg/L	94-03599	
WNW0203	nh3	05/12/94	ND<0.05	0.05	mg/L	94-03525	
WNW0203	no3no2	11/09/93		1.70	mg/L	93-11842	
WNW0203	no3no2	05/12/94		2.50	mg/L	94-03527	
WNW0203	no3no2	05/12/94		2.40	mg/L	94-03601	
WNW0203	po4_totl	11/09/93	ND<0.05	0.05	mg/L	93-11842	
WNW0203	po4_totl	05/12/94		0.03	mg/L	94-03601	
WNW0203	po4_totl	05/12/94	ND<0.02	0.02	mg/L	94-03527	
WNW0203	silica	11/09/93		4.00	mg/L	93-11844	

MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	silica	05/12/94		4.40	mg/L	94-03602	
WNW0203	silica	05/12/94		4.00	mg/L	94-03528	
WNW0203	so4	11/09/93		54.80	mg/L	93-11844	
WNW0203	so4	05/12/94		58.20	mg/L	94-03602	
WNW0203	so4	05/12/94		56.10	mg/L	94-03528	
WNW0203	sulfide	11/09/93	ND<1.00	1.00	mg/L	93-11851	
WNW0203	sulfide	05/12/94	ND<1.00	1.00	mg/L	94-03530	
WNW0203	sulfide	05/12/94	ND<1.00	1.00	mg/L	94-03604	
WNW0205	cl	11/09/93		1160.00	mg/L	93-11863	
WNW0205	cl	05/12/94		922.00	mg/L	94-03553	
WNW0205	co3	11/09/93	ND<1.00	1.00	mg/L	93-11863	
WNW0205	co3	05/12/94	ND<1.00	1.00	mg/L	94-03553	
WNW0205	hco3	11/09/93		192.00	mg/L	93-11863	
WNW0205	hco3	05/12/94		165.00	mg/L	94-03553	
WNW0205	hydroxyl	11/09/93	ND<1.00	1.00	mg/L	93-11863	
WNW0205	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03553	
WNW0205	nh3	11/09/93	ND<0.05	0.05	mg/L	93-11860	
WNW0205	nh3	05/12/94	ND<0.05	0.05	mg/L	94-03550	
WNW0205	no3no2	11/09/93		0.66	mg/L	93-11862	
WNW0205	no3no2	05/12/94		1.60	mg/L	94-03552	
WNW0205	po4_totl	11/09/93	ND<0.05	0.05	mg/L	93-11862	
WNW0205	po4_totl	05/12/94		0.04	mg/L	94-03552	
WNW0205	silica	11/09/93		2.50	mg/L	93-11863	
WNW0205	silica	05/12/94		2.40	mg/L	94-03553	
WNW0205	so4	11/09/93		70.00	mg/L	93-11863	
WNW0205	so4	05/12/94		71.10	mg/L	94-03553	
WNW0205	sulfide	11/09/93	ND<1.00	1.00	mg/L	93-11867	
WNW0205	sulfide	05/12/94	ND<1.00	1.00	mg/L	94-03555	
WNW0207	cl	11/09/93		5.10	mg/L	93-11798	
WNW0207	cl	05/12/94		3.10	mg/L	94-03578	
WNW0207	co3	11/09/93	ND<1.00	1.00	mg/L	93-11798	
WNW0207	co3	05/12/94	ND<1.00	1.00	mg/L	94-03578	
WNW0207	hco3	11/09/93		400.00	mg/L	93-11798	
WNW0207	hco3	05/12/94		425.00	mg/L	94-03578	
WNW0207	hydroxyl	11/09/93	ND<1.00	1.00	mg/L	93-11798	
WNW0207	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03578	
WNW0207	nh3	11/09/93		0.24	mg/L	93-11793	
WNW0207	nh3	05/12/94		0.10	mg/L	94-03575	
WNW0207	no3no2	11/09/93	ND<0.05	0.05	mg/L	93-11795	
WNW0207	no3no2	05/12/94		0.17	mg/L	94-03577	
WNW0207	po4_totl	11/09/93		0.05	mg/L	93-11795	
WNW0207	po4_totl	05/12/94		0.05	mg/L	94-03577	
WNW0207	silica	11/09/93		13.60	mg/L	93-11798	

MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	silica	05/12/94		13.80	mg/L	94-03578	
WNW0207	so4	11/09/93		30.80	mg/L	93-11798	
WNW0207	so4	05/12/94		30.30	mg/L	94-03578	
WNW0207	sulfide	11/09/93	ND<1.00	1.00	mg/L	93-11799	
WNW0207	sulfide	05/12/94	ND<1.00	1.00	mg/L	94-03581	
WNW8605	cl	12/07/93		24.30	mg/L	93-13012	
WNW8605	cl	05/10/94		35.60	mg/L	94-04194	
WNW8605	co3	12/07/93	ND<1.00	1.00	mg/L	93-13012	
WNW8605	co3	05/10/94		205.00	mg/L	94-04194	
WNW8605	hco3	12/07/93		381.00	mg/L	93-13012	
WNW8605	hco3	05/10/94	ND<1.00	1.00	mg/L	94-04194	
WNW8605	hydroxyl	12/07/93	ND<1.00	1.00	mg/L	93-13012	
WNW8605	hydroxyl	05/10/94	ND<1.00	1.00	mg/L	94-04194	
WNW8605	nh3	12/07/93		0.10	mg/L	93-13011	
WNW8605	nh3	05/10/94	ND<0.03	0.03	mg/L	94-04193	R
WNW8605	no3no2	12/07/93	ND<0.05	0.05	mg/L	93-13011	
WNW8605	no3no2	05/10/94		1.15	mg/L	94-04193	
WNW8605	po4_totl	12/07/93	ND<0.05	0.05	mg/L	93-13011	
WNW8605	po4_totl	05/10/94	ND<0.05	0.05	mg/L	94-04193	R
WNW8605	silica	12/07/93		9.70	mg/L	93-13012	J
WNW8605	so4	12/07/93		46.70	mg/L	93-13012	
WNW8605	so4	05/10/94	ND<25.00	25.00	mg/L	94-04194	
WNW8605	sulfide	12/07/93	ND<1.00	1.00	mg/L	93-13015	
WNW8605	sulfide	05/10/94	ND<1.00	1.00	mg/L	94-04196	
WNW8606	cl	11/11/93		1070.00	mg/L	93-11995	
WNW8606	cl	05/12/94		908.00	mg/L	94-03594	
WNW8606	co3	11/11/93	ND<1.00	1.00	mg/L	93-11995	
WNW8606	co3	05/12/94	ND<1.00	1.00	mg/L	94-03594	
WNW8606	hco3	11/11/93		185.00	mg/L	93-11995	
WNW8606	hco3	05/12/94		162.00	mg/L	94-03594	
WNW8606	hydroxyl	11/11/93	ND<1.00	1.00	mg/L	93-11995	
WNW8606	hydroxyl	05/12/94	ND<1.00	1.00	mg/L	94-03594	
WNW8606	nh3	11/11/93	ND<0.05	0.05	mg/L	93-11992	
WNW8606	nh3	05/12/94	ND<0.05	0.05	mg/L	94-03723	
WNW8606	no3no2	11/11/93		0.81	mg/L	93-11994	
WNW8606	no3no2	05/12/94		1.60	mg/L	94-03593	
WNW8606	po4_totl	11/11/93	ND<0.05	0.05	mg/L	93-11994	
WNW8606	po4_totl	05/12/94	ND<0.02	0.02	mg/L	94-03593	
WNW8606	silica	11/11/93		2.50	mg/L	93-11995	
WNW8606	silica	05/12/94		2.40	mg/L	94-03594	
WNW8606	so4	11/11/93		65.70	mg/L	93-11995	
WNW8606	so4	05/12/94	.	72.30	mg/L	94-03594	
WNW8606	sulfide	11/11/93	ND<1.00	1.00	mg/L	93-11998	

MSU Expanded Groundwater Quality Parameter Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8606	sulfide	05/12/94		1.00	mg/L	94-03597	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Till-Sand							
WNW0202	Aluminum	11/11/93		284.00	µg/L	93-11831	
WNW0202	Aluminum	05/23/94		173.00	µg/L	94-03517	
WNW0202	Antimony	11/11/93	ND<3.00	3.00	µg/L	93-11831	
WNW0202	Antimony	05/23/94	ND<5.00	5.00	µg/L	94-03517	
WNW0202	Arsenic	11/11/93		5.00	µg/L	93-11831	
WNW0202	Arsenic	05/23/94	ND<3.00	3.00	µg/L	94-03517	
WNW0202	Barium	11/11/93		309.00	µg/L	93-11831	
WNW0202	Barium	05/23/94		252.00	µg/L	94-03517	
WNW0202	Beryllium	11/11/93	ND<3.00	3.00	µg/L	93-11831	
WNW0202	Beryllium	05/23/94	ND<3.00	3.00	µg/L	94-03517	
WNW0202	Cadmium	11/11/93	ND<0.20	0.20	µg/L	93-11831	
WNW0202	Cadmium	05/23/94	ND<0.20	0.20	µg/L	94-03517	
WNW0202	Calcium	11/11/93		214000.00	µg/L	93-11831	
WNW0202	Calcium	05/23/94		180000.00	µg/L	94-03517	J
WNW0202	Chromium	11/11/93	ND<10.00	10.00	µg/L	93-11831	
WNW0202	Chromium	05/23/94	ND<10.00	10.00	µg/L	94-03517	
WNW0202	Cobalt	11/11/93	ND<20.00	20.00	µg/L	93-11831	
WNW0202	Cobalt	05/23/94	ND<10.00	10.00	µg/L	94-03517	
WNW0202	Copper	11/11/93		15.50	µg/L	93-11831	
WNW0202	Copper	05/23/94	ND<10.00	10.00	µg/L	94-03517	
WNW0202	Iron	11/11/93		115.00	µg/L	93-11831	
WNW0202	Iron	05/23/94		62.00	µg/L	94-03517	
WNW0202	Lead	11/11/93	ND<2.00	2.00	µg/L	93-11831	
WNW0202	Lead	05/23/94	ND<2.00	2.00	µg/L	94-03517	
WNW0202	Magnesium	11/11/93	ND<1000	1000.00	µg/L	93-11831	
WNW0202	Magnesium	05/23/94		379.00	µg/L	94-03517	
WNW0202	Manganese	11/11/93		6.00	µg/L	93-11831	
WNW0202	Manganese	05/23/94	ND<5.00	5.00	µg/L	94-03517	
WNW0202	Mercury	11/11/93	ND<0.20	0.20	µg/L	93-11831	
WNW0202	Mercury	05/23/94	ND<0.20	0.20	µg/L	94-03517	
WNW0202	Nickel	11/11/93	ND<30.00	30.00	µg/L	93-11831	
WNW0202	Nickel	05/23/94	ND<30.00	30.00	µg/L	94-03517	
WNW0202	Potassium	11/11/93		16700.00	µg/L	93-11831	
WNW0202	Potassium	05/23/94		13900.00	µg/L	94-03517	J
WNW0202	Selenium	11/11/93	ND<3.00	3.00	µg/L	93-11831	
WNW0202	Selenium	05/23/94	ND<3.00	3.00	µg/L	94-03517	
WNW0202	Silver	11/11/93	ND<0.20	0.20	µg/L	93-11831	
WNW0202	Silver	05/23/94	ND<0.40	0.40	µg/L	94-03517	
WNW0202	Sodium	11/11/93		24700.00	µg/L	93-11831	
WNW0202	Sodium	05/23/94		24900.00	µg/L	94-03517	
WNW0202	Thallium	11/11/93	ND<3.00	3.00	µg/L	93-11831	
WNW0202	Thallium	05/23/94	ND<5.00	5.00	µg/L	94-03517	
WNW0202	Vanadium	11/11/93	ND<20.00	20.00	µg/L	93-11831	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	Vanadium	05/23/94	ND < 10.00	10.00	µg/L	94-03517	
WNW0202	Zinc	11/11/93		12.90	µg/L	93-11831	
WNW0202	Zinc	05/23/94	ND < 10.00	10.00	µg/L	94-03517	
WNW0204	Aluminum	11/09/93		210.00	µg/L	93-11780	
WNW0204	Aluminum	05/12/94	ND < 90.00	90.00	µg/L	94-03544	
WNW0204	Calcium	11/09/93		82900.00	µg/L	93-11780	
WNW0204	Calcium	05/12/94		79900.00	µg/L	94-03544	
WNW0204	Iron	11/09/93		463.00	µg/L	93-11780	
WNW0204	Iron	05/12/94		230.00	µg/L	94-03544	
WNW0204	Magnesium	11/09/93		17500.00	µg/L	93-11780	
WNW0204	Magnesium	05/12/94		16200.00	µg/L	94-03544	
WNW0204	Manganese	11/09/93		95.00	µg/L	93-11780	
WNW0204	Manganese	05/12/94		100.00	µg/L	94-03544	
WNW0204	Potassium	11/09/93		1910.00	µg/L	93-11780	
WNW0204	Potassium	05/12/94		1700.00	µg/L	94-03544	
WNW0204	Sodium	11/09/93		13600.00	µg/L	93-11780	
WNW0204	Sodium	05/12/94		13000.00	µg/L	94-03544	
WNW0206	Aluminum	11/09/93		6030.00	µg/L	93-11789	
WNW0206	Aluminum	05/12/94		270.00	µg/L	94-03570	
WNW0206	Calcium	11/09/93		95000.00	µg/L	93-11789	
WNW0206	Calcium	05/12/94		98000.00	µg/L	94-03570	
WNW0206	Iron	11/09/93		10200.00	µg/L	93-11789	
WNW0206	Iron	05/12/94		1000.00	µg/L	94-03570	
WNW0206	Magnesium	11/09/93		21500.00	µg/L	93-11789	
WNW0206	Magnesium	05/12/94		20700.00	µg/L	94-03570	
WNW0206	Manganese	11/09/93		335.00	µg/L	93-11789	
WNW0206	Manganese	05/12/94		220.00	µg/L	94-03570	
WNW0206	Potassium	11/09/93		2370.00	µg/L	93-11789	
WNW0206	Potassium	05/12/94		1000.00	µg/L	94-03570	
WNW0206	Sodium	11/09/93		14000.00	µg/L	93-11789	
WNW0206	Sodium	05/12/94		13300.00	µg/L	94-03570	
WNW0208	Aluminum	11/09/93		1100.00	µg/L	93-11807	
WNW0208	Aluminum	05/16/94		150.00	µg/L	94-03588	
WNW0208	Calcium	11/09/93		39400.00	µg/L	93-11807	
WNW0208	Calcium	05/16/94		35700.00	µg/L	94-03588	
WNW0208	Iron	11/09/93		1060.00	µg/L	93-11807	
WNW0208	Iron	05/16/94		300.00	µg/L	94-03588	
WNW0208	Magnesium	11/09/93		9280.00	µg/L	93-11807	
WNW0208	Magnesium	05/16/94		8600.00	µg/L	94-03588	
WNW0208	Manganese	11/09/93		62.00	µg/L	93-11807	
WNW0208	Manganese	05/16/94		280.00	µg/L	94-03588	
WNW0208	Potassium	11/09/93		1150.00	µg/L	93-11807	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0208	Potassium	05/16/94		1000.00	µg/L	94-03588	
WNW0208	Sodium	11/09/93		17000.00	µg/L	93-11807	
WNW0208	Sodium	05/16/94		15600.00	µg/L	94-03588	
Background							
WNW0302	Aluminum	10/29/93		127.00	µg/L	93-11100	
WNW0302	Aluminum	05/16/94	ND<90.000	90.00	µg/L	94-03822	
WNW0302	Calcium	10/29/93		202000.00	µg/L	93-11100	
WNW0302	Calcium	05/16/94		242000.00	µg/L	94-03822	
WNW0302	Iron	10/29/93		253.00	µg/L	93-11100	
WNW0302	Iron	05/16/94		120.00	µg/L	94-03822	
WNW0302	Magnesium	10/29/93		25200.00	µg/L	93-11100	
WNW0302	Magnesium	05/16/94		29200.00	µg/L	94-03822	
WNW0302	Manganese	10/29/93		34.00	µg/L	93-11100	
WNW0302	Manganese	05/16/94		30.00	µg/L	94-03822	
WNW0302	Potassium	05/16/94		2200.00	µg/L	94-03822	
WNW0302	Sodium	05/16/94		139000.00	µg/L	94-03822	
WNW0402	Aluminum	11/08/93		1160.00	µg/L	93-11655	
WNW0402	Aluminum	05/04/94		292.00	µg/L	94-03025	
WNW0402	Antimony	05/04/94	ND<6.000	6.00	µg/L	94-03025	
WNW0402	Arsenic	05/04/94	ND<3.000	3.00	µg/L	94-03025	
WNW0402	Barium	05/04/94		641.00	µg/L	94-03025	
WNW0402	Beryllium	05/04/94	ND<3.000	3.00	µg/L	94-03025	
WNW0402	Cadmium	05/04/94	ND<0.200	0.20	µg/L	94-03025	
WNW0402	Calcium	11/08/93		166000.00	µg/L	93-11655	
WNW0402	Chromium	05/04/94	ND<10.000	10.00	µg/L	94-03025	
WNW0402	Cobalt	05/04/94	ND<10.000	10.00	µg/L	94-03025	
WNW0402	Copper	05/04/94	ND<10.000	10.00	µg/L	94-03025	
WNW0402	Iron	11/08/93		2980.00	µg/L	93-11655	
WNW0402	Lead	05/04/94	ND<2.000	2.00	µg/L	94-03025	
WNW0402	Magnesium	11/08/93		30000.00	µg/L	93-11655	
WNW0402	Manganese	11/08/93		162.00	µg/L	93-11655	
WNW0402	Mercury	05/04/94	ND<0.200	0.20	µg/L	94-03025	
WNW0402	Nickel	05/04/94	ND<30.000	30.00	µg/L	94-03025	
WNW0402	Selenium	05/04/94	ND<3.000	3.00	µg/L	94-03025	
WNW0402	Silver	05/04/94	ND<0.600	0.60	µg/L	94-03025	UJ
WNW0402	Thallium	05/04/94	ND<3.000	3.00	µg/L	94-03025	
WNW0402	Vanadium	05/04/94	ND<10.000	10.00	µg/L	94-03025	
WNW0402	Zinc	05/04/94	ND<10.000	10.00	µg/L	94-03025	
WNW0404	Aluminum	11/04/93		520.00	µg/L	93-11468	
WNW0404	Aluminum	05/05/94		140.00	µg/L	94-03012	
WNW0404	Calcium	11/04/93		35100.00	µg/L	93-11468	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0404	Calcium	05/05/94		32600.00	µg/L	94-03012	
WNW0404	Iron	11/04/93		313.00	µg/L	93-11468	
WNW0404	Iron	05/05/94		200.00	µg/L	94-03012	
WNW0404	Magnesium	11/04/93		5360.00	µg/L	93-11468	
WNW0404	Magnesium	05/05/94		5600.00	µg/L	94-03012	
WNW0404	Manganese	11/04/93		7.00	µg/L	93-11468	
WNW0404	Manganese	05/05/94		30.00	µg/L	94-03012	
WNW0404	Potassium	05/05/94		780.00	µg/L	94-03012	
WNW0404	Sodium	05/05/94		14000.00	µg/L	94-03012	
Sand and Gravel							
WNW0201	Aluminum	11/09/93	ND<90.00	90.00	µg/L	93-11815	
WNW0201	Aluminum	05/12/94	ND<90.00	90.00	µg/L	94-03501	
WNW0201	Antimony	11/09/93	ND<3.00	3.00	µg/L	93-11815	
WNW0201	Antimony	05/12/94	ND<6.00	6.00	µg/L	94-03501	
WNW0201	Arsenic	11/09/93	ND<3.00	3.00	µg/L	93-11815	
WNW0201	Arsenic	05/12/94	ND<3.00	3.00	µg/L	94-03501	
WNW0201	Barium	11/09/93		251.00	µg/L	93-11815	
WNW0201	Barium	05/12/94		432.00	µg/L	94-03501	
WNW0201	Beryllium	11/09/93	ND<3.00	3.00	µg/L	93-11815	
WNW0201	Beryllium	05/12/94	ND<3.00	3.00	µg/L	94-03501	
WNW0201	Cadmium	11/09/93	ND<0.20	0.20	µg/L	93-11815	
WNW0201	Cadmium	05/12/94	ND<5.00	5.00	µg/L	94-03501	
WNW0201	Calcium	11/09/93		131000.00	µg/L	93-11815	
WNW0201	Calcium	05/12/94		246000.00	µg/L	94-03501	
WNW0201	Chromium	11/09/93	ND<10.00	10.00	µg/L	93-11815	
WNW0201	Chromium	05/12/94	ND<10.00	10.00	µg/L	94-03501	
WNW0201	Cobalt	11/09/93	ND<20.00	20.00	µg/L	93-11815	
WNW0201	Cobalt	05/12/94	ND<10.00	10.00	µg/L	94-03501	
WNW0201	Copper	11/09/93	ND<10.00	10.00	µg/L	93-11815	
WNW0201	Copper	05/12/94	ND<10.00	10.00	µg/L	94-03501	
WNW0201	Iron	11/09/93		46.00	µg/L	93-11815	
WNW0201	Iron	05/12/94		50.00	µg/L	94-03501	
WNW0201	Lead	11/09/93	ND<2.00	2.00	µg/L	93-11815	
WNW0201	Lead	05/12/94	ND<2.00	2.00	µg/L	94-03501	
WNW0201	Magnesium	11/09/93		13100.00	µg/L	93-11815	
WNW0201	Magnesium	05/12/94		22300.00	µg/L	94-03501	
WNW0201	Manganese	11/09/93		383.00	µg/L	93-11815	
WNW0201	Manganese	05/12/94		153.00	µg/L	94-03501	
WNW0201	Mercury	11/09/93	ND<0.20	0.20	µg/L	93-11815	
WNW0201	Mercury	05/12/94	ND<0.20	0.20	µg/L	94-03501	
WNW0201	Nickel	11/09/93	ND<30.00	30.00	µg/L	93-11815	
WNW0201	Nickel	05/12/94	ND<30.00	30.00	µg/L	94-03501	
WNW0201	Potassium	11/09/93		4580.00	µg/L	93-11815	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	Potassium	05/12/94		5780.00	µg/L	94-03501	
WNW0201	Selenium	11/09/93	ND<3.00	3.00	µg/L	93-11815	
WNW0201	Selenium	05/12/94	ND<3.00	3.00	µg/L	94-03501	
WNW0201	Silver	11/09/93	ND<0.20	0.20	µg/L	93-11815	
WNW0201	Silver	05/12/94		13.90	µg/L	94-03501	J
WNW0201	Sodium	11/09/93		136000.00	µg/L	93-11815	
WNW0201	Sodium	05/12/94		243000.00	µg/L	94-03501	
WNW0201	Thallium	11/09/93	ND<3.00	3.00	µg/L	93-11815	
WNW0201	Thallium	05/12/94	ND<3.00	3.00	µg/L	94-03501	
WNW0201	Vanadium	11/09/93	ND<20.00	20.00	µg/L	93-11815	
WNW0201	Vanadium	05/12/94	ND<10.00	10.00	µg/L	94-03501	
WNW0201	Zinc	11/09/93	ND<10.00	10.00	µg/L	93-11815	
WNW0201	Zinc	05/12/94	ND<10.00	10.00	µg/L	94-03501	
WNW0203	Aluminum	11/09/93		762.00	µg/L	93-11846	
WNW0203	Aluminum	05/12/94	ND<90.00	90.00	µg/L	94-03533	
WNW0203	Aluminum	05/12/94		91.00	µg/L	94-03607	
WNW0203	Antimony	11/09/93	ND<3.00	3.00	µg/L	93-11846	
WNW0203	Antimony	05/12/94	ND<6.00	6.00	µg/L	94-03533	
WNW0203	Antimony	05/12/94	ND<6.00	6.00	µg/L	94-03607	
WNW0203	Arsenic	11/09/93	ND<3.00	3.00	µg/L	93-11846	
WNW0203	Arsenic	05/12/94	ND<3.00	3.00	µg/L	94-03533	
WNW0203	Arsenic	05/12/94	ND<3.00	3.00	µg/L	94-03607	
WNW0203	Barium	11/09/93		274.00	µg/L	93-11846	
WNW0203	Barium	05/12/94		379.00	µg/L	94-03607	
WNW0203	Barium	05/12/94		361.00	µg/L	94-03533	
WNW0203	Beryllium	11/09/93	ND<3.00	3.00	µg/L	93-11846	
WNW0203	Beryllium	05/12/94	ND<3.00	3.00	µg/L	94-03607	
WNW0203	Beryllium	05/12/94	ND<3.00	3.00	µg/L	94-03533	
WNW0203	Cadmium	11/09/93	ND<0.20	0.20	µg/L	93-11846	
WNW0203	Cadmium	05/12/94	ND<5.00	5.00	µg/L	94-03533	
WNW0203	Cadmium	05/12/94	ND<5.00	5.00	µg/L	94-03607	
WNW0203	Calcium	11/09/93		173000.00	µg/L	93-11846	
WNW0203	Calcium	05/12/94		227000.00	µg/L	94-03533	
WNW0203	Calcium	05/12/94		238000.00	µg/L	94-03607	
WNW0203	Chromium	11/09/93		95.00	µg/L	93-11846	
WNW0203	Chromium	05/12/94		70.60	µg/L	94-03533	
WNW0203	Chromium	05/12/94		94.30	µg/L	94-03607	
WNW0203	Cobalt	11/09/93	ND<20.00	20.00	µg/L	93-11846	
WNW0203	Cobalt	05/12/94	ND<10.00	10.00	µg/L	94-03533	
WNW0203	Cobalt	05/12/94	ND<10.00	10.00	µg/L	94-03607	
WNW0203	Copper	11/09/93		40.00	µg/L	93-11846	J
WNW0203	Copper	05/12/94	ND<10.00	10.00	µg/L	94-03533	
WNW0203	Copper	05/12/94	ND<10.00	10.00	µg/L	94-03607	
WNW0203	Iron	11/09/93		2400.00	µg/L	93-11846	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	Iron	05/12/94		1020.00	µg/L	94-03607	
WNW0203	Iron	05/12/94		848.00	µg/L	94-03533	
WNW0203	Lead	11/09/93	ND<2.00	2.00	µg/L	93-11846	
WNW0203	Lead	05/12/94	ND<2.00	2.00	µg/L	94-03607	
WNW0203	Lead	05/12/94	ND<2.00	2.00	µg/L	94-03533	
WNW0203	Magnesium	11/09/93		15600.00	µg/L	93-11846	
WNW0203	Magnesium	05/12/94		20700.00	µg/L	94-03607	
WNW0203	Magnesium	05/12/94		19700.00	µg/L	94-03533	
WNW0203	Manganese	11/09/93		78.00	µg/L	93-11846	
WNW0203	Manganese	05/12/94		105.00	µg/L	94-03533	
WNW0203	Manganese	05/12/94		109.00	µg/L	94-03607	
WNW0203	Mercury	11/09/93	ND<0.20	0.20	µg/L	93-11846	
WNW0203	Mercury	05/12/94	ND<0.20	0.20	µg/L	94-03607	
WNW0203	Mercury	05/12/94	ND<0.20	0.20	µg/L	94-03533	
WNW0203	Nickel	11/09/93		154.00	µg/L	93-11846	
WNW0203	Nickel	05/12/94		174.00	µg/L	94-03607	
WNW0203	Nickel	05/12/94		186.00	µg/L	94-03533	
WNW0203	Potassium	11/09/93		5270.00	µg/L	93-11846	
WNW0203	Potassium	05/12/94		5390.00	µg/L	94-03533	
WNW0203	Potassium	05/12/94		5700.00	µg/L	94-03607	
WNW0203	Selenium	11/09/93	ND<3.00	3.00	µg/L	93-11846	
WNW0203	Selenium	05/12/94	ND<3.00	3.00	µg/L	94-03533	
WNW0203	Selenium	05/12/94	ND<3.00	3.00	µg/L	94-03607	
WNW0203	Silver	11/09/93	ND<0.20	0.20	µg/L	93-11846	
WNW0203	Silver	05/12/94	ND<10.00	10.00	µg/L	94-03533	UJ
WNW0203	Silver	05/12/94	ND<10.00	10.00	µg/L	94-03607	UJ
WNW0203	Sodium	11/09/93		319000.00	µg/L	93-11846	
WNW0203	Sodium	05/12/94		559000.00	µg/L	94-03607	
WNW0203	Sodium	05/12/94		528000.00	µg/L	94-03533	
WNW0203	Thallium	11/09/93	ND<3.00	3.00	µg/L	93-11846	
WNW0203	Thallium	05/12/94	ND<3.00	3.00	µg/L	94-03533	
WNW0203	Thallium	05/12/94	ND<3.00	3.00	µg/L	94-03607	
WNW0203	Vanadium	11/09/93	ND<20.00	20.00	µg/L	93-11846	
WNW0203	Vanadium	05/12/94	ND<10.00	10.00	µg/L	94-03607	
WNW0203	Vanadium	05/12/94	ND<10.00	10.00	µg/L	94-03533	
WNW0203	Zinc	11/09/93		21.20	µg/L	93-11846	J
WNW0203	Zinc	05/12/94	ND<10.00	10.00	µg/L	94-03607	
WNW0203	Zinc	05/12/94	ND<10.00	10.00	µg/L	94-03533	
WNW0205	Aluminum	11/09/93	ND<90.00	90.00	µg/L	93-11864	
WNW0205	Aluminum	05/12/94	ND<90.00	90.00	µg/L	94-03558	
WNW0205	Antimony	11/09/93	ND<3.00	3.00	µg/L	93-11864	
WNW0205	Antimony	05/12/94	ND<6.00	6.00	µg/L	94-03558	
WNW0205	Arsenic	11/09/93	ND<3.00	3.00	µg/L	93-11864	
WNW0205	Arsenic	05/12/94	ND<3.00	3.00	µg/L	94-03558	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	Barium	11/09/93		197.00	µg/L	93-11864	
WNW0205	Barium	05/12/94		153.00	µg/L	94-03558	
WNW0205	Beryllium	11/09/93	ND<3.00	3.00	µg/L	93-11864	
WNW0205	Beryllium	05/12/94	ND<3.00	3.00	µg/L	94-03558	
WNW0205	Cadmium	11/09/93		0.30	µg/L	93-11864	
WNW0205	Cadmium	05/12/94	ND<5.00	5.00	µg/L	94-03558	
WNW0205	Calcium	11/09/93		114000.00	µg/L	93-11864	
WNW0205	Calcium	05/12/94		135000.00	µg/L	94-03558	
WNW0205	Chromium	11/09/93		44.90	µg/L	93-11864	
WNW0205	Chromium	05/12/94		120.00	µg/L	94-03558	
WNW0205	Cobalt	11/09/93	ND<20.00	20.00	µg/L	93-11864	
WNW0205	Cobalt	05/12/94	ND<10.00	10.00	µg/L	94-03558	
WNW0205	Copper	11/09/93		202.00	µg/L	93-11864	
WNW0205	Copper	05/12/94		10.90	µg/L	94-03558	
WNW0205	Iron	11/09/93		633.00	µg/L	93-11864	
WNW0205	Iron	05/12/94		704.00	µg/L	94-03558	
WNW0205	Lead	11/09/93	ND<2.00	2.00	µg/L	93-11864	
WNW0205	Lead	05/12/94	ND<2.00	2.00	µg/L	94-03558	
WNW0205	Magnesium	11/09/93		14900.00	µg/L	93-11864	
WNW0205	Magnesium	05/12/94		15600.00	µg/L	94-03558	
WNW0205	Manganese	11/09/93		31.00	µg/L	93-11864	
WNW0205	Manganese	05/12/94		9.00	µg/L	94-03558	
WNW0205	Mercury	11/09/93	ND<0.20	0.20	µg/L	93-11864	
WNW0205	Mercury	05/12/94	ND<0.20	0.20	µg/L	94-03558	
WNW0205	Nickel	11/09/93	ND<30.00	30.00	µg/L	93-11864	
WNW0205	Nickel	05/12/94	ND<30.00	30.00	µg/L	94-03558	
WNW0205	Potassium	11/09/93		5710.00	µg/L	93-11864	
WNW0205	Potassium	05/12/94		4710.00	µg/L	94-03558	
WNW0205	Selenium	11/09/93	ND<3.00	3.00	µg/L	93-11864	
WNW0205	Selenium	05/12/94	ND<3.00	3.00	µg/L	94-03558	
WNW0205	Silver	11/09/93	ND<0.20	0.20	µg/L	93-11864	
WNW0205	Silver	05/12/94	ND<10.00	10.00	µg/L	94-03558	UJ
WNW0205	Sodium	11/09/93		743000.00	µg/L	93-11864	
WNW0205	Sodium	05/12/94		489000.00	µg/L	94-03558	
WNW0205	Thallium	11/09/93	ND<3.00	3.00	µg/L	93-11864	
WNW0205	Thallium	05/12/94	ND<3.00	3.00	µg/L	94-03558	
WNW0205	Vanadium	11/09/93	ND<20.00	20.00	µg/L	93-11864	
WNW0205	Vanadium	05/12/94	ND<10.00	10.00	µg/L	94-03558	
WNW0205	Zinc	11/09/93		145.00	µg/L	93-11864	J
WNW0205	Zinc	05/12/94	ND<10.00	10.00	µg/L	94-03558	
WNW0207	Aluminum	11/09/93	ND<200.00	200.00	µg/L	93-11797	
WNW0207	Aluminum	05/12/94	ND<90.00	90.00	µg/L	94-03579	
WNW0207	Calcium	11/09/93		134000.00	µg/L	93-11797	
WNW0207	Calcium	05/12/94		148000.00	µg/L	94-03579	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0207	Iron	11/09/93		1850.00	µg/L	93-11797	
WNW0207	Iron	05/12/94		790.00	µg/L	94-03579	
WNW0207	Magnesium	11/09/93		22300.00	µg/L	93-11797	
WNW0207	Magnesium	05/12/94		25700.00	µg/L	94-03579	
WNW0207	Manganese	11/09/93		2040.00	µg/L	93-11797	
WNW0207	Manganese	05/12/94		1600.00	µg/L	94-03579	
WNW0207	Potassium	11/09/93		1350.00	µg/L	93-11797	
WNW0207	Potassium	05/12/94		1000.00	µg/L	94-03579	
WNW0207	Sodium	11/09/93		7660.00	µg/L	93-11797	
WNW0207	Sodium	05/12/94		7500.00	µg/L	94-03579	
WNW8605	Aluminum	12/07/93		43.00	µg/L	93-13013	
WNW8605	Aluminum	05/10/94		25.00	µg/L	94-04199	
WNW8605	Antimony	12/07/93		16.00	µg/L	93-13013	
WNW8605	Antimony	05/10/94	ND<20.00	20.00	µg/L	94-04199	
WNW8605	Arsenic	12/07/93		5.80	µg/L	93-13013	
WNW8605	Arsenic	05/10/94		6.30	µg/L	94-04199	
WNW8605	Barium	12/07/93		87.80	µg/L	93-13013	
WNW8605	Barium	05/10/94		108.00	µg/L	94-04199	
WNW8605	Beryllium	12/07/93	ND<1.00	1.00	µg/L	93-13013	
WNW8605	Beryllium	05/10/94	ND<1.00	1.00	µg/L	94-04199	
WNW8605	Cadmium	12/07/93	ND<2.00	2.00	µg/L	93-13013	
WNW8605	Cadmium	05/10/94	ND<2.00	2.00	µg/L	94-04199	
WNW8605	Calcium	12/07/93		74600.00	µg/L	93-13013	
WNW8605	Calcium	05/10/94		93700.00	µg/L	94-04199	
WNW8605	Chromium	12/07/93	ND<3.00	3.00	µg/L	93-13013	
WNW8605	Chromium	05/10/94	ND<2.00	2.00	µg/L	94-04199	
WNW8605	Cobalt	12/07/93	ND<3.00	3.00	µg/L	93-13013	
WNW8605	Cobalt	05/10/94	ND<3.00	3.00	µg/L	94-04199	
WNW8605	Copper	12/07/93	ND<3.00	3.00	µg/L	93-13013	
WNW8605	Copper	05/10/94		2.50	µg/L	94-04199	
WNW8605	Iron	12/07/93		3490.00	µg/L	93-13013	J
WNW8605	Iron	05/10/94		4350.00	µg/L	94-04199	
WNW8605	Lead	12/07/93	ND<1.00	1.00	µg/L	93-13013	
WNW8605	Lead	05/10/94		9.00	µg/L	94-04199	J
WNW8605	Magnesium	12/07/93		12000.00	µg/L	93-13013	
WNW8605	Magnesium	05/10/94		14700.00	µg/L	94-04199	
WNW8605	Manganese	12/07/93		8360.00	µg/L	93-13013	
WNW8605	Manganese	05/10/94		8970.00	µg/L	94-04199	
WNW8605	Mercury	12/07/93	ND<0.15	0.15	µg/L	93-13013	
WNW8605	Mercury	05/10/94		0.15	µg/L	94-04199	
WNW8605	Nickel	12/07/93	ND<6.00	6.00	µg/L	93-13013	
WNW8605	Nickel	05/10/94		6.50	µg/L	94-04199	
WNW8605	Potassium	12/07/93		7340.00	µg/L	93-13013	
WNW8605	Potassium	05/10/94		7320.00	µg/L	94-04199	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	Selenium	12/07/93		3.60	µg/L	93-13013	
WNW8605	Selenium	05/10/94	ND<1.00	1.00	µg/L	94-04199	
WNW8605	Silver	12/07/93		3.50	µg/L	93-13013	
WNW8605	Silver	05/10/94	ND<2.00	2.00	µg/L	94-04199	
WNW8605	Sodium	12/07/93		48400.00	µg/L	93-13013	
WNW8605	Sodium	05/10/94		66500.00	µg/L	94-04199	
WNW8605	Thallium	12/07/93	ND<1.00	1.00	µg/L	93-13013	UJ
WNW8605	Thallium	05/10/94	ND<1.00	1.00	µg/L	94-04199	UJ
WNW8605	Vanadium	12/07/93	ND<3.00	3.00	µg/L	93-13013	
WNW8605	Vanadium	05/10/94		1.70	µg/L	94-04199	
WNW8605	Zinc	12/07/93		5.60	µg/L	93-13013	
WNW8605	Zinc	05/10/94		5.40	µg/L	94-04199	
WNW8606	Aluminum	11/11/93	ND<200.00	200.00	µg/L	93-11996	
WNW8606	Aluminum	05/12/94	ND<90.00	90.00	µg/L	94-03595	
WNW8606	Calcium	11/11/93		98900.00	µg/L	93-11996	
WNW8606	Calcium	05/12/94		138000.00	µg/L	94-03595	
WNW8606	Iron	11/11/93		216.00	µg/L	93-11996	
WNW8606	Iron	05/12/94		110.00	µg/L	94-03595	
WNW8606	Magnesium	11/11/93		13500.00	µg/L	93-11996	
WNW8606	Magnesium	05/12/94		15400.00	µg/L	94-03595	
WNW8606	Manganese	11/11/93		26.00	µg/L	93-11996	
WNW8606	Manganese	05/12/94		9.00	µg/L	94-03595	
WNW8606	Potassium	11/11/93		5220.00	µg/L	93-11996	
WNW8606	Potassium	05/12/94		4500.00	µg/L	94-03595	
WNW8606	Sodium	11/11/93		687000.00	µg/L	93-11996	
WNW8606	Sodium	05/12/94		462000.00	µg/L	94-03595	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Background							
WNW0301	Aluminum	10/29/93		9430.00	µg/L	93-11090	
WNW0301	Aluminum	05/16/94		3000.00	µg/L	94-03821	
WNW0301	Calcium	10/29/93		102000.00	µg/L	93-11090	
WNW0301	Calcium	05/16/94		132000.00	µg/L	94-03821	
WNW0301	Iron	10/29/93		16700.00	µg/L	93-11090	
WNW0301	Iron	05/16/94		14800.00	µg/L	94-03821	
WNW0301	Magnesium	10/29/93		11400.00	µg/L	93-11090	
WNW0301	Magnesium	05/16/94		12600.00	µg/L	94-03821	
WNW0301	Manganese	10/29/93		411.00	µg/L	93-11090	
WNW0301	Manganese	05/16/94		480.00	µg/L	94-03821	
WNW0301	Potassium	10/29/93		3760.00	µg/L	93-11090	
WNW0301	Potassium	05/16/94		2100.00	µg/L	94-03821	
WNW0301	Sodium	10/29/93		22900.00	µg/L	93-11090	
WNW0301	Sodium	05/16/94		46200.00	µg/L	94-03821	
WNW0401	Aluminum	11/04/93		240.00	µg/L	93-11450	
WNW0401	Aluminum	05/04/94		830.00	µg/L	94-02994	
WNW0401	Calcium	11/04/93		175000.00	µg/L	93-11450	
WNW0401	Calcium	05/04/94		221000.00	µg/L	94-02994	
WNW0401	Iron	11/04/93		752.00	µg/L	93-11450	
WNW0401	Iron	05/04/94		3600.00	µg/L	94-02994	
WNW0401	Magnesium	11/04/93		19100.00	µg/L	93-11450	
WNW0401	Magnesium	05/04/94		21400.00	µg/L	94-02994	
WNW0401	Manganese	11/04/93		27.00	µg/L	93-11450	
WNW0401	Manganese	05/04/94		89.00	µg/L	94-02994	
WNW0401	Potassium	11/04/93		1870.00	µg/L	93-11450	
WNW0401	Potassium	05/04/94		2100.00	µg/L	94-02994	
WNW0401	Sodium	11/04/93		155000.00	µg/L	93-11450	
WNW0401	Sodium	05/04/94		185000.00	µg/L	94-02994	
WNW0706	Aluminum	11/05/93		9600.00	µg/L	93-11603	
WNW0706	Aluminum	05/05/94		2700.00	µg/L	94-03479	
WNW0706	Calcium	11/05/93		69300.00	µg/L	93-11603	
WNW0706	Calcium	05/05/94		87300.00	µg/L	94-03479	
WNW0706	Iron	11/05/93		4280.00	µg/L	93-11603	
WNW0706	Iron	05/05/94		4300.00	µg/L	94-03479	
WNW0706	Magnesium	11/05/93		10700.00	µg/L	93-11603	
WNW0706	Magnesium	05/05/94		13400.00	µg/L	94-03479	
WNW0706	Manganese	11/05/93		230.00	µg/L	93-11603	
WNW0706	Manganese	05/05/94		150.00	µg/L	94-03479	
WNW0706	Potassium	11/05/93		1790.00	µg/L	93-11603	
WNW0706	Potassium	05/05/94		1500.00	µg/L	94-03479	
WNW0706	Sodium	11/05/93		3650.00	µg/L	93-11603	

MSU Expanded Groundwater Metals Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0706	Sodium	05/05/94		4600.00	μg/L	94-03479	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Till-Sand							
WNW0202	acnphthe	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	acnphthe	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	acnphthy	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	acnphthy	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	anthracn	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	anthracn	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bis2ceth	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bis2ceth	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bis2cexy	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bis2cexy	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bis2clis	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bis2clis	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bis2ehex	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bis2ehex	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bnz_a_an	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bnz_a_an	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bnz_a_py	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bnz_a_py	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bnz_b_fl	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bnz_b_fl	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bnz_k_fl	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bnz_k_fl	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	bnzghipr	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	bnzghipr	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	brppeth4	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	brppeth4	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	butbnzph	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	butbnzph	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	carbazol	11/09/93	ND < 10.00	10.00	µg/L	93-11839	UJ
WNW0202	carbazol	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	chppeth4	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	chppeth4	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	chrysene	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	chrysene	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	clnapht2	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	clnapht2	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	clphen_2	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	clphen_2	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	dbahanth	11/09/93	ND < 10.00	10.00	µg/L	93-11839	
WNW0202	dbahanth	05/19/94	ND < 10.00	10.00	µg/L	94-03516	
WNW0202	dcb_33	11/09/93	ND < 10.00	10.00	µg/L	93-11839	UJ
WNW0202	dcb_33	05/19/94	ND < 10.00	10.00	µg/L	94-03516	UJ
WNW0202	dibnzfur	11/09/93	ND < 10.00	10.00	µg/L	93-11839	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	dibnzfur	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	diclph24	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	diclph24	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	diethyph	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	diethyph	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dimthp24	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dimthp24	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dimthyph	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dimthyph	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dinbutph	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dinbutph	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dinoctph	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dinoctph	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dintrp24	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	dintrp24	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	dintrt24	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dintrt24	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dintrt26	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	dintrt26	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	dntrcr46	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	dntrcr46	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	flranthn	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	flranthn	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	fluorene	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	fluorene	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	hexclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	hexclbnz	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	hexclbut	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	hexclbut	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	hexcleth	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	hexcleth	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	hexclpen	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	hexclpen	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	indnpyre	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	indnpyre	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	isophron	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	isophron	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	m_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	m_dclbnz	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	m_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	m_ntranl	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	mthynph2	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	mthynph2	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	naphthal	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	naphthal	05/19/94	ND<10.00	10.00	µg/L	94-03516	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	nntrphny	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	nntrphny	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	nntrprpy	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	nntrprpy	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	ntrobenz	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	ntrobenz	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	o_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	o_cresol	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	o_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	o_dclbnz	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	o_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	o_ntranl	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	o_ntrphn	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	o_ntrphn	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	p_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	p_cresol	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	p_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	p_dclbnz	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	p_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11839	UJ
WNW0202	p_ntranl	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	p_ntrphn	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	p_ntrphn	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	pclranil	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	pclranil	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	pclrmcrs	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	pclrmcrs	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	pntclphn	11/09/93	ND<50.00	50.00	µg/L	93-11839	
WNW0202	pntclphn	05/19/94	ND<50.00	50.00	µg/L	94-03516	
WNW0202	pyrene	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	pyrene	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	tclph245	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	tclph245	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	tclph246	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	tclph246	05/19/94	ND<10.00	10.00	µg/L	94-03516	
Sand and Gravel							
WNW0201	acnphthe	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	acnphthe	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	acnphthy	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	acnphthy	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	anthracn	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	anthracn	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bis2ceth	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bis2ceth	05/12/94	ND<10.00	10.00	µg/L	94-03500	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	bis2cexy	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bis2cexy	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bis2clis	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bis2clis	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bis2ehex	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bis2ehex	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bnz_a_an	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bnz_a_an	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bnz_a_py	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bnz_a_py	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bnz_b_fl	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bnz_b_fl	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bnz_k_fl	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bnz_k_fl	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	bnzghipr	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	bnzghipr	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	brppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	brppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	butbnzph	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	butbnzph	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	carbazol	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	carbazol	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	chppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	chppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	chrysene	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	chrysene	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	clnapht2	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	clnapht2	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	clphen_2	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	clphen_2	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dbahanth	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dbahanth	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dcb_33	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dcb_33	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dibnzfur	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dibnzfur	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	diclph24	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	diclph24	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	diethyph	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	diethyph	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dimthp24	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dimthp24	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dimthyph	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dimthyph	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dinbutph	11/09/93	ND<10.00	10.00	µg/L	93-11820	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	dinbutph	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dinoctph	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dinoctph	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dintrp24	11/09/93	ND<50.00	50.00	µg/L	93-11820	UJ
WNW0201	dintrp24	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	dintrt24	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dintrt24	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dintrt26	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	dintrt26	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	dntrcr46	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	dntrcr46	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	flranthn	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	flranthn	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	fluorene	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	fluorene	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	hexclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	hexclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	hexclbut	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	hexclbut	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	hexcleth	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	hexcleth	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	hexclpen	11/09/93	ND<10.00	10.00	µg/L	93-11820	UJ
WNW0201	hexclpen	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	indnpyre	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	indnpyre	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	isophron	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	isophron	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	m_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	m_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	m_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	m_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	mthynph2	11/09/93	ND<10.00	10.00	µg/L	93-11820	UJ
WNW0201	mthynph2	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	naphthal	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	naphthal	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	nntrphny	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	nntrphny	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	nntrprpy	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	nntrprpy	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	ntrobenz	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	ntrobenz	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	o_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	o_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	o_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	o_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03500	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	o_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	o_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	o_ntrphn	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	o_ntrphn	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	p_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	p_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	p_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	p_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	p_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	p_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	p_ntrphn	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	p_ntrphn	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	pclranil	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	pclranil	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	pclrmcrs	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	pclrmcrs	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	pntclphn	11/09/93	ND<50.00	50.00	µg/L	93-11820	
WNW0201	pntclphn	05/12/94	ND<50.00	50.00	µg/L	94-03500	
WNW0201	pyrene	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	pyrene	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	tclph245	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	tclph245	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	tclph246	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	tclph246	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0203	acnphthe	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	acnphthe	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	acnphthe	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	acnphthy	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	acnphthy	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	acnphthy	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	anthracn	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	anthracn	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	anthracn	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	benz_alc	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	benz_alc	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bis2ceth	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bis2ceth	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bis2ceth	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bis2cexy	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bis2cexy	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bis2cexy	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bis2clis	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bis2clis	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bis2clis	05/12/94	ND<10.00	10.00	µg/L	94-03606	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	bis2ehex	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bis2ehex	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bis2ehex	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bnz_a_an	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bnz_a_an	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bnz_a_an	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bnz_a_py	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bnz_a_py	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bnz_a_py	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bnz_b_fl	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bnz_b_fl	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bnz_b_fl	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bnz_k_fl	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bnz_k_fl	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bnz_k_fl	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	bnzghipr	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	bnzghipr	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	bnzghipr	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	brppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	brppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	brppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	butbnzph	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	butbnzph	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	butbnzph	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	carbazol	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	carbazol	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	carbazol	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	chppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	chppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	chppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	chrysene	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	chrysene	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	chrysene	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	clnapht2	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	clnapht2	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	clnapht2	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	clphen_2	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	clphen_2	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	clphen_2	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dbahanth	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dbahanth	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dbahanth	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dcb_33	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dcb_33	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dcb_33	05/12/94	ND<10.00	10.00	µg/L	94-03606	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	dibnzfur	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dibnzfur	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dibnzfur	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	diclph24	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	diclph24	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	diclph24	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	diethyph	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	diethyph	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	diethyph	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dimthp24	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dimthp24	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dimthp24	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dimthyph	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dimthyph	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dimthyph	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dinbutph	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dinbutph	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dinbutph	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dinoctph	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dinoctph	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dinoctph	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dintrp24	11/09/93	ND<50.00	50.00	µg/L	93-11852	UJ
WNW0203	dintrp24	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	dintrp24	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	dintrt24	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dintrt24	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dintrt24	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dintrt26	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	dintrt26	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	dintrt26	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	dntrcr46	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	dntrcr46	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	dntrcr46	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	flranthn	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	flranthn	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	flranthn	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	fluorene	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	fluorene	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	fluorene	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	hexclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	hexclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	hexclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	hexclbut	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	hexclbut	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	hexclbut	05/12/94	ND<10.00	10.00	µg/L	94-03606	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	hexcleth	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	hexcleth	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	hexcleth	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	hexclpen	11/09/93	ND<10.00	10.00	µg/L	93-11852	UJ
WNW0203	hexclpen	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	hexclpen	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	indnpyre	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	indnpyre	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	indnpyre	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	isophron	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	isophron	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	isophron	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	m_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	m_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	m_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	m_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	m_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	m_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	mthynph2	11/09/93	ND<10.00	10.00	µg/L	93-11852	UJ
WNW0203	mthynph2	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	mthynph2	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	naphthal	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	naphthal	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	naphthal	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	nntrphny	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	nntrphny	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	nntrphny	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	nntrprpy	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	nntrprpy	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	nntrprpy	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	ntrobenz	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	ntrobenz	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	ntrobenz	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	o_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	o_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	o_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	o_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	o_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	o_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	o_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	o_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	o_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	o_ntrphn	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	o_ntrphn	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	o_ntrphn	05/12/94	ND<10.00	10.00	µg/L	94-03606	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	p_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	p_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	p_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	p_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	p_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	p_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	p_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	p_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	p_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	p_ntrphn	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	p_ntrphn	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	p_ntrphn	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	pclranil	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	pclranil	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	pclranil	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	pclrmcrs	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	pclrmcrs	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	pclrmcrs	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	pntclphn	11/09/93	ND<50.00	50.00	µg/L	93-11852	
WNW0203	pntclphn	05/12/94	ND<50.00	50.00	µg/L	94-03532	
WNW0203	pntclphn	05/12/94	ND<50.00	50.00	µg/L	94-03606	
WNW0203	pyrene	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	pyrene	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	pyrene	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	tclph245	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	tclph245	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	tclph245	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	tclph246	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	tclph246	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	tclph246	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0205	acnphthe	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	acnphthe	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	acnphthy	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	acnphthy	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	anthracn	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	anthracn	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	benz_alc	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bis2ceth	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bis2ceth	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bis2cexy	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bis2cexy	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bis2clis	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bis2clis	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bis2ehex	11/09/93	ND<10.00	10.00	µg/L	93-11868	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	bis2ehex	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bnz_a_an	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bnz_a_an	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bnz_a_py	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bnz_a_py	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bnz_b_fl	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bnz_b_fl	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bnz_k_fl	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bnz_k_fl	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	bnzghipr	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	bnzghipr	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	brppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	brppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	butbnzph	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	butbnzph	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	carbazol	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	carbazol	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	chppeth4	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	chppeth4	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	chrysene	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	chrysene	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	clnapht2	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	clnapht2	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	clphen_2	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	clphen_2	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dbahanth	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dbahanth	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dcb_33	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dcb_33	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dibnzfur	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dibnzfur	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	diclph24	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	diclph24	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	diethyph	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	diethyph	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dimthp24	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dimthp24	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dimthyph	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dimthyph	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dinbutph	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dinbutph	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dinoctph	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dinoctph	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dintrp24	11/09/93	ND<50.00	50.00	µg/L	93-11868	UJ
WNW0205	dintrp24	05/12/94	ND<50.00	50.00	µg/L	94-03557	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	dintrt24	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dintrt24	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dintrt26	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	dintrt26	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	dntrcr46	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	dntrcr46	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	flranthn	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	flranthn	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	fluorene	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	fluorene	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	hexclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	hexclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	hexclbut	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	hexclbut	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	hexcleth	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	hexcleth	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	hexclpen	11/09/93	ND<10.00	10.00	µg/L	93-11868	UJ
WNW0205	hexclpen	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	indnpyre	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	indnpyre	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	isophron	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	isophron	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	m_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	m_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	m_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	m_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	mthynph2	11/09/93	ND<10.00	10.00	µg/L	93-11868	UJ
WNW0205	mthynph2	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	naphthal	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	naphthal	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	nntrphny	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	nntrphny	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	nntrprpy	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	nntrprpy	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	ntrobenz	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	ntrobenz	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	o_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	o_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	o_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	o_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	o_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	o_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	o_ntrphn	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	o_ntrphn	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	p_cresol	11/09/93	ND<10.00	10.00	µg/L	93-11868	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	p_cresol	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	p_dclbnz	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	p_dclbnz	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	p_ntranl	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	p_ntranl	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	p_ntrphn	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	p_ntrphn	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	pclranil	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	pclranil	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	pclrmcrs	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	pclrmcrs	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	pntclphn	11/09/93	ND<50.00	50.00	µg/L	93-11868	
WNW0205	pntclphn	05/12/94	ND<50.00	50.00	µg/L	94-03557	
WNW0205	pyrene	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	pyrene	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	tclph245	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	tclph245	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	tclph246	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	tclph246	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW8605	acnphthe	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	acnphthe	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	acnphthe	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	acnphthe	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	acnphthy	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	acnphthy	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	acnphthy	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	acnphthy	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	anthracn	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	anthracn	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	anthracn	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	anthracn	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bis2ceth	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bis2ceth	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bis2ceth	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bis2ceth	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bis2cexy	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bis2cexy	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bis2cexy	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bis2cexy	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bis2clis	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bis2clis	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bis2clis	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bis2clis	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bis2ehex	12/07/93	ND<10.00	10.00	µg/L	93-13017	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	bis2ehex	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bis2ehex	05/10/94		1.80	µg/L	94-04198	J
WNW8605	bis2ehex	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnz_a_an	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bnz_a_an	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bnz_a_an	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnz_a_an	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bnz_a_py	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bnz_a_py	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bnz_a_py	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bnz_a_py	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnz_b_fl	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bnz_b_fl	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bnz_b_fl	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bnz_b_fl	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnz_k_fl	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bnz_k_fl	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bnz_k_fl	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	bnz_k_fl	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnzghipr	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	bnzghipr	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	bnzghipr	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	bnzghipr	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	brppeth4	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	brppeth4	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	brppeth4	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	brppeth4	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	butbnzph	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	butbnzph	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	butbnzph	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	butbnzph	05/10/94		1.90	µg/L	94-04198	J
WNW8605	carbazol	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	carbazol	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	carbazol	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	carbazol	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	chppeth4	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	chppeth4	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	chppeth4	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	chppeth4	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	chrysene	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	chrysene	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	chrysene	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	chrysene	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	clnapht2	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	clnapht2	12/07/93	ND<10.00	10.00	µg/L	93-13017	

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	clnapht2	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	clnapht2	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	clphen_2	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	clphen_2	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	clphen_2	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	clphen_2	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	dbahanth	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dbahanth	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dbahanth	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dbahanth	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dcb_33	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dcb_33	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dcb_33	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dcb_33	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dibnzfur	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dibnzfur	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dibnzfur	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dibnzfur	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	diclph24	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	diclph24	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	diclph24	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	diclph24	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	diethyph	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	diethyph	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	diethyph	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	diethyph	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dimthp24	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	dimthp24	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	dimthp24	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	dimthp24	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	dimthyph	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dimthyph	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dimthyph	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dimthyph	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dinbutph	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dinbutph	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dinbutph	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dinbutph	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dinoctph	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dinoctph	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dinoctph	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dinoctph	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dintrp24	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	dintrp24	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	dintrp24	05/10/94	ND<25.00	25.00	µg/L	94-04198	R

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	dintrp24	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	dintrt24	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dintrt24	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dintrt24	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dintrt24	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dintrt26	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	dintrt26	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	dintrt26	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	dintrt26	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	dntrcr46	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	dntrcr46	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	dntrcr46	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	dntrcr46	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	flranthn	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	flranthn	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	flranthn	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	flranthn	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	fluorene	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	fluorene	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	fluorene	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	fluorene	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	hexclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	hexclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	hexclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	hexclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	hexclbut	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	hexclbut	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	hexclbut	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	hexclbut	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	hexcleth	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	hexcleth	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	hexcleth	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	hexcleth	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	hexclpen	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	hexclpen	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	hexclpen	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	hexclpen	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	indnpyre	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	indnpyre	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	indnpyre	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	indnpyre	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	isophron	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	isophron	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	isophron	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	isophron	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	m_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	m_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	m_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	m_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	m_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	UJ
WNW8605	m_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	
WNW8605	m_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	UJ
WNW8605	m_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	
WNW8605	mthynph2	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	mthynph2	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	mthynph2	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	mthynph2	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	naphthal	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	naphthal	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	naphthal	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	naphthal	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	nntrphny	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	nntrphny	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	nntrphny	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	nntrphny	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	nntrprpy	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	nntrprpy	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	nntrprpy	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	nntrprpy	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	ntrobenz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	ntrobenz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	ntrobenz	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	ntrobenz	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	o_cresol	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	o_cresol	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	o_cresol	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	o_cresol	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	o_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	o_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	o_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	o_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	o_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	UJ
WNW8605	o_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	UJ
WNW8605	o_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	UJ
WNW8605	o_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	
WNW8605	o_ntrphn	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	o_ntrphn	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	o_ntrphn	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	o_ntrphn	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	p_cresol	12/07/93	ND<10.00	10.00	µg/L	93-13017	R

MSU Expanded Groundwater Semivolatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	p_cresol	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	p_cresol	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	p_cresol	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	p_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	p_dclbnz	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	p_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	p_dclbnz	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	p_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	UJ
WNW8605	p_ntranl	12/07/93	ND<25.00	25.00	µg/L	93-13017	
WNW8605	p_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	UJ
WNW8605	p_ntranl	05/10/94	ND<25.00	25.00	µg/L	94-04198	
WNW8605	p_ntrphn	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	p_ntrphn	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	p_ntrphn	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	p_ntrphn	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	pclranil	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	pclranil	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	pclranil	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	pclranil	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	pclrmcrs	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	pclrmcrs	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	pclrmcrs	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	pclrmcrs	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	pntclphn	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	pntclphn	12/07/93	ND<25.00	25.00	µg/L	93-13017	R
WNW8605	pntclphn	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	pntclphn	05/10/94	ND<25.00	25.00	µg/L	94-04198	R
WNW8605	pyrene	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	pyrene	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	pyrene	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	pyrene	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	tclph245	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	tclph245	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	tclph245	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	tclph245	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	tclph246	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	tclph246	12/07/93	ND<10.00	10.00	µg/L	93-13017	R
WNW8605	tclph246	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	tclph246	05/10/94	ND<9.90	9.90	µg/L	94-04198	R
WNW8605	trbutphs	12/07/93		300.00	µg/L	93-13017	J
WNW8605	trbutphs	12/07/93		280.00	µg/L	93-13017	
WNW8605	trbutphs	05/10/94		500.00	µg/L	94-04198	J

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
Till-Sand							
WNW0202	acetone	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	acetone	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	acetone	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	acnitril	11/09/93	ND<100.00	100.00	µg/L	93-11837	
WNW0202	acnitril	05/19/94	ND<100.00	100.00	µg/L	94-03515	
WNW0202	acnitril	05/19/94	ND<100.00	100.00	µg/L	94-03515	
WNW0202	acrolein	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	acrolein	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	acrolein	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	acrynitr	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	acrynitr	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	acrynitr	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	allylcl	11/09/93	ND<100.00	100.00	µg/L	93-11837	
WNW0202	allylcl	05/19/94	ND<5.00	5.00	µg/L	94-03515	R
WNW0202	allylcl	05/19/94	ND<5.00	5.00	µg/L	94-03515	R
WNW0202	benzene	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	benzene	05/19/94	ND<0.70	0.70	µg/L	94-03515	
WNW0202	benzene	05/19/94	ND<0.70	0.70	µg/L	94-03515	
WNW0202	br_meth	11/09/93	ND<10.00	10.00	µg/L	93-11837	UJ
WNW0202	br_meth	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	br_meth	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	brdcmeth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	brdcmeth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	brdcmeth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	brform	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	brform	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	brform	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	c_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	c_13_dcp	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	c_13_dcp	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	ccl4	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	ccl4	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	ccl4	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_benz	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	cl_benz	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_benz	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_eth	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	cl_eth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_eth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_form	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	cl_form	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_form	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_meth	11/09/93	ND<10.00	10.00	µg/L	93-11837	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	cl_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_prene	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	cl_prene	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cl_prene	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	clevethr	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	clevethr	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	clevethr	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	cs2	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	cs2	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	cs2	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dbc_meth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dbc_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dbc_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dbc_prop	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dbc_prop	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	dbc_prop	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	dbeth_12	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dbeth_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dbeth_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dca_11	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dca_11	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dca_11	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dca_12	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dca_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dca_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dcdfmeth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dcdfmeth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dcdfmeth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dce_11	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dce_11	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dce_11	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dcp_12	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	dcp_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	dcp_12	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	diox_14	11/09/93	ND<150.00	150.00	µg/L	93-11837	R
WNW0202	diox_14	05/19/94	ND<150.00	150.00	µg/L	94-03515	
WNW0202	diox_14	05/19/94	ND<150.00	150.00	µg/L	94-03515	
WNW0202	eth_benz	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	eth_benz	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	eth_benz	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	eth_meth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	eth_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	eth_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	hexnone2	11/09/93	ND<10.00	10.00	µg/L	93-11837	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	hexnone2	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	hexnone2	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	ibut_alc	11/09/93	ND<50.00	50.00	µg/L	93-11837	R
WNW0202	ibut_alc	05/19/94	ND<50.00	50.00	µg/L	94-03515	R
WNW0202	ibut_alc	05/19/94	ND<50.00	50.00	µg/L	94-03515	R
WNW0202	meacryln	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	meacryln	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	meacryln	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	mek	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	mek	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	mek	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	mene_br	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	mene_br	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	mene_br	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	mene_cl	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	mene_cl	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	mene_cl	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	meth_i	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	meth_i	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	meth_i	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	methmeac	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	methmeac	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	methmeac	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	mibk	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	mibk	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	mibk	05/19/94	ND<10.00	10.00	µg/L	94-03515	
WNW0202	picoline	11/09/93	ND<5.00	5.00	µg/L	93-11837	R
WNW0202	picoline	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	picoline	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	pntcleth	11/09/93	ND<5.00	5.00	µg/L	93-11837	UJ
WNW0202	pntcleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	pntcleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	propnitl	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	propnitl	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	propnitl	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	pyridine	11/09/93	ND<30.00	30.00	µg/L	93-11837	R
WNW0202	pyridine	05/19/94	ND<30.00	30.00	µg/L	94-03515	
WNW0202	pyridine	05/19/94	ND<30.00	30.00	µg/L	94-03515	
WNW0202	styrene	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	styrene	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	styrene	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	t_12_dce	11/09/93	ND<5.00	5.00	µg/L	93-11837	UJ
WNW0202	t_12_dce	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	t_12_dce	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	t_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11837	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	t_13_dcp	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	t_13_dcp	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	t_14dc2b	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	t_14dc2b	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	t_14dc2b	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	tca_111	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tca_111	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_111	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_1112	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tca_1112	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_1112	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_112	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tca_112	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_112	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_1122	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tca_1122	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tca_1122	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tcb_124	11/09/93	ND<10.00	10.00	µg/L	93-11839	
WNW0202	tcb_124	05/19/94	ND<10.00	10.00	µg/L	94-03516	
WNW0202	tcf_meth	11/09/93	ND<5.00	5.00	µg/L	93-11837	UJ
WNW0202	tcf_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	tcf_meth	05/19/94	ND<5.00	5.00	µg/L	94-03515	UJ
WNW0202	tcp_123	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tcp_123	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tcp_123	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tetcleth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tetcleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tetcleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	toluene	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	toluene	05/19/94		0.80	µg/L	94-03515	J
WNW0202	toluene	05/19/94		0.80	µg/L	94-03515	J
WNW0202	tricleth	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	tricleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	tricleth	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	vnyl_ace	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	vnyl_ace	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	vnyl_ace	05/19/94	ND<5.00	5.00	µg/L	94-03515	
WNW0202	vnyl_cl	11/09/93	ND<10.00	10.00	µg/L	93-11837	
WNW0202	vnyl_cl	05/19/94	ND<2.00	2.00	µg/L	94-03515	
WNW0202	vnyl_cl	05/19/94	ND<2.00	2.00	µg/L	94-03515	
WNW0202	xylene	11/09/93	ND<5.00	5.00	µg/L	93-11837	
WNW0202	xylene	05/19/94		0.70	µg/L	94-03515	J
WNW0202	xylene	05/19/94		0.60	µg/L	94-03515	J

Sand and Gravel

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	acetone	11/09/93	ND<10.00	10.00	µg/L	93-11819	
WNW0201	acetone	05/12/94	ND<10.00	10.00	µg/L	94-03499	
WNW0201	benzene	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	benzene	05/12/94	ND<0.70	0.70	µg/L	94-03499	
WNW0201	br_meth	11/09/93	ND<10.00	10.00	µg/L	93-11819	UJ
WNW0201	br_meth	05/12/94	ND<10.00	10.00	µg/L	94-03499	
WNW0201	brdcmeth	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	brdcmeth	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	brform	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	brform	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	c_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	c_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	ccl4	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	ccl4	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	cl_benz	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	cl_benz	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	cl_eth	11/09/93	ND<10.00	10.00	µg/L	93-11819	
WNW0201	cl_eth	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	cl_form	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	cl_form	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	cl_meth	11/09/93	ND<10.00	10.00	µg/L	93-11819	UJ
WNW0201	cl_meth	05/12/94	ND<5.00	5.00	µg/L	94-03499	UJ
WNW0201	cs2	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	cs2	05/12/94	ND<5.00	5.00	µg/L	94-03499	UJ
WNW0201	dbc_meth	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dbc_meth	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	dca_11	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dca_11	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	dca_12	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dca_12	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	dce_11	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dce_11	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	dce_12_t	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dce_12_t	05/12/94	ND<5.00	5.00	µg/L	94-03499	UJ
WNW0201	dcp_12	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	dcp_12	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	eth_benz	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	eth_benz	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	hexnone2	11/09/93	ND<10.00	10.00	µg/L	93-11819	
WNW0201	hexnone2	05/12/94	ND<10.00	10.00	µg/L	94-03499	UJ
WNW0201	mek	11/09/93	ND<10.00	10.00	µg/L	93-11819	
WNW0201	mek	05/12/94	ND<10.00	10.00	µg/L	94-03499	
WNW0201	mene_cl	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	mene_cl	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	mibk	11/09/93	ND<10.00	10.00	µg/L	93-11819	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	mibk	05/12/94	ND<10.00	10.00	µg/L	94-03499	
WNW0201	styrene	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	styrene	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	t_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	t_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	tca_111	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	tca_111	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	tca_112	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	tca_112	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	tca_1122	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	tca_1122	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	tcb_124	11/09/93	ND<10.00	10.00	µg/L	93-11820	
WNW0201	tcb_124	05/12/94	ND<10.00	10.00	µg/L	94-03500	
WNW0201	tetcleth	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	tetcleth	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	toluene	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	toluene	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	tricleth	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	tricleth	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0201	vnyl_cl	11/09/93	ND<10.00	10.00	µg/L	93-11819	
WNW0201	vnyl_cl	05/12/94	ND<2.00	2.00	µg/L	94-03499	
WNW0201	xylene	11/09/93	ND<5.00	5.00	µg/L	93-11819	
WNW0201	xylene	05/12/94	ND<5.00	5.00	µg/L	94-03499	
WNW0203	acetone	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	acetone	05/12/94	ND<10.00	10.00	µg/L	94-03605	
WNW0203	acetone	05/12/94	ND<10.00	10.00	µg/L	94-03531	
WNW0203	benzene	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	benzene	05/12/94	ND<0.70	0.70	µg/L	94-03605	
WNW0203	benzene	05/12/94	ND<0.70	0.70	µg/L	94-03531	
WNW0203	br_meth	11/09/93	ND<10.00	10.00	µg/L	93-11850	UJ
WNW0203	br_meth	05/12/94	ND<10.00	10.00	µg/L	94-03531	
WNW0203	br_meth	05/12/94	ND<10.00	10.00	µg/L	94-03605	
WNW0203	brdcmeth	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	brdcmeth	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	brdcmeth	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	brform	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	brform	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	brform	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	c_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	c_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	c_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	ccl4	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	ccl4	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	ccl4	05/12/94	ND<5.00	5.00	µg/L	94-03605	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	cl_benz	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	cl_benz	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	cl_benz	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	cl_eth	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	cl_eth	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	cl_eth	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	cl_form	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	cl_form	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	cl_form	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	cl_meth	11/09/93	ND<10.00	10.00	µg/L	93-11850	UJ
WNW0203	cl_meth	05/12/94	ND<5.00	5.00	µg/L	94-03605	UJ
WNW0203	cl_meth	05/12/94	ND<5.00	5.00	µg/L	94-03531	UJ
WNW0203	cs2	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	cs2	05/12/94	ND<5.00	5.00	µg/L	94-03605	UJ
WNW0203	cs2	05/12/94	ND<5.00	5.00	µg/L	94-03531	UJ
WNW0203	dbc_meth	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dbc_meth	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	dbc_meth	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	dca_11	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dca_11	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	dca_11	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	dca_12	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dca_12	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	dca_12	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	dce_11	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dce_11	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	dce_11	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	dce_12_t	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dce_12_t	05/12/94	ND<5.00	5.00	µg/L	94-03605	UJ
WNW0203	dce_12_t	05/12/94	ND<5.00	5.00	µg/L	94-03531	UJ
WNW0203	dcp_12	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	dcp_12	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	dcp_12	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	eth_benz	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	eth_benz	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	eth_benz	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	hexnone2	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	hexnone2	05/12/94	ND<10.00	10.00	µg/L	94-03605	UJ
WNW0203	hexnone2	05/12/94	ND<10.00	10.00	µg/L	94-03531	UJ
WNW0203	mek	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	mek	05/12/94	ND<10.00	10.00	µg/L	94-03531	
WNW0203	mek	05/12/94	ND<10.00	10.00	µg/L	94-03605	
WNW0203	mene_cl	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	mene_cl	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	mene_cl	05/12/94	ND<5.00	5.00	µg/L	94-03605	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	mibk	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	mibk	05/12/94	ND<10.00	10.00	µg/L	94-03605	
WNW0203	mibk	05/12/94	ND<10.00	10.00	µg/L	94-03531	
WNW0203	styrene	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	styrene	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	styrene	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	t_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	t_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	t_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tca_111	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	tca_111	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tca_111	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	tca_112	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	tca_112	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	tca_112	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tca_1122	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	tca_1122	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tca_1122	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	tcb_124	11/09/93	ND<10.00	10.00	µg/L	93-11852	
WNW0203	tcb_124	05/12/94	ND<10.00	10.00	µg/L	94-03532	
WNW0203	tcb_124	05/12/94	ND<10.00	10.00	µg/L	94-03606	
WNW0203	tetcleth	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	tetcleth	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tetcleth	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	toluene	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	toluene	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	toluene	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	tricleth	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	tricleth	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	tricleth	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0203	vnyl_cl	11/09/93	ND<10.00	10.00	µg/L	93-11850	
WNW0203	vnyl_cl	05/12/94	ND<2.00	2.00	µg/L	94-03531	
WNW0203	vnyl_cl	05/12/94	ND<2.00	2.00	µg/L	94-03605	
WNW0203	xylene	11/09/93	ND<5.00	5.00	µg/L	93-11850	
WNW0203	xylene	05/12/94	ND<5.00	5.00	µg/L	94-03605	
WNW0203	xylene	05/12/94	ND<5.00	5.00	µg/L	94-03531	
WNW0205	acetone	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	acetone	05/12/94	ND<10.00	10.00	µg/L	94-03556	
WNW0205	benzene	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	benzene	05/12/94	ND<0.70	0.70	µg/L	94-03556	
WNW0205	br_meth	11/09/93	ND<10.00	10.00	µg/L	93-11866	UJ
WNW0205	br_meth	05/12/94	ND<10.00	10.00	µg/L	94-03556	
WNW0205	brdcmeth	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	brdcmeth	05/12/94	ND<5.00	5.00	µg/L	94-03556	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	brform	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	brform	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	c_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	c_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	ccl4	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	ccl4	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	cl_benz	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	cl_benz	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	cl_eth	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	cl_eth	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	cl_form	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	cl_form	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	cl_meth	11/09/93	ND<10.00	10.00	µg/L	93-11866	UJ
WNW0205	cl_meth	05/12/94	ND<5.00	5.00	µg/L	94-03556	UJ
WNW0205	cs2	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	cs2	05/12/94	ND<5.00	5.00	µg/L	94-03556	UJ
WNW0205	dbc_meth	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dbc_meth	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	dca_11	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dca_11	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	dca_12	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dca_12	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	dce_11	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dce_11	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	dce_12_t	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dce_12_t	05/12/94	ND<5.00	5.00	µg/L	94-03556	UJ
WNW0205	dcp_12	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	dcp_12	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	eth_benz	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	eth_benz	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	hexnone2	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	hexnone2	05/12/94	ND<10.00	10.00	µg/L	94-03556	UJ
WNW0205	mek	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	mek	05/12/94	ND<10.00	10.00	µg/L	94-03556	
WNW0205	mene_cl	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	mene_cl	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	mibk	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	mibk	05/12/94	ND<10.00	10.00	µg/L	94-03556	
WNW0205	styrene	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	styrene	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	t_13_dcp	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	t_13_dcp	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	tca_111	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	tca_111	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	tca_112	11/09/93	ND<5.00	5.00	µg/L	93-11866	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	tca_112	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	tca_1122	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	tca_1122	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	tcb_124	11/09/93	ND<10.00	10.00	µg/L	93-11868	
WNW0205	tcb_124	05/12/94	ND<10.00	10.00	µg/L	94-03557	
WNW0205	tetcleth	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	tetcleth	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	toluene	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	toluene	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	tricleth	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	tricleth	05/12/94	ND<5.00	5.00	µg/L	94-03556	
WNW0205	vnyl_cl	11/09/93	ND<10.00	10.00	µg/L	93-11866	
WNW0205	vnyl_cl	05/12/94	ND<2.00	2.00	µg/L	94-03556	
WNW0205	xylene	11/09/93	ND<5.00	5.00	µg/L	93-11866	
WNW0205	xylene	05/12/94	ND<5.00	5.00	µg/L	94-03556	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	acetone	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	acetone	05/10/94	ND < 10.00	10.00	µg/L	94-04197	R
WNW8605	benzene	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	benzene	05/10/94	ND < 0.70	0.70	µg/L	94-04197	
WNW8605	br_meth	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	br_meth	05/10/94	ND < 10.00	10.00	µg/L	94-04197	
WNW8605	brdcmeth	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	brdcmeth	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	brform	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	brform	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	c_13_dcp	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	c_13_dcp	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	ccl4	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	ccl4	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	cl_benz	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	cl_benz	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	cl_eth	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	cl_eth	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	cl_form	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	cl_form	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	cl_meth	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	cl_meth	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	cs2	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	cs2	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dbc_meth	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dbc_meth	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dca_11	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dca_11	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dca_12	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dca_12	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dce_11	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dce_11	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dce_12_t	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dce_12_t	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	dcp_12	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	dcp_12	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	eth_benz	12/07/93	ND < 5.00	5.00	µg/L	93-13016	
WNW8605	eth_benz	05/10/94	ND < 5.00	5.00	µg/L	94-04197	
WNW8605	hexnone2	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	hexnone2	05/10/94	ND < 10.00	10.00	µg/L	94-04197	
WNW8605	mek	12/07/93	ND < 10.00	10.00	µg/L	93-13016	
WNW8605	mek	05/10/94	ND < 10.00	10.00	µg/L	94-04197	
WNW8605	mene_cl	12/07/93		4.00	µg/L	93-13016	UJ
WNW8605	mene_cl	05/10/94		4.00	µg/L	94-04197	UJ
WNW8605	mibk	12/07/93	ND < 10.00	10.00	µg/L	93-13016	

MSU Expanded Groundwater Volatiles Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	mibk	05/10/94	ND<10.00	10.00	µg/L	94-04197	UJ
WNW8605	styrene	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	styrene	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	t_13_dcp	12/07/93	ND<5.00	5.00	µg/L	93-13016	UJ
WNW8605	t_13_dcp	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	tca_111	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	tca_111	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	tca_112	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	tca_112	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	tca_1122	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	tca_1122	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	tcb_124	12/07/93	ND<10.00	10.00	µg/L	93-13017	UJ
WNW8605	tcb_124	12/07/93	ND<10.00	10.00	µg/L	93-13017	
WNW8605	tcb_124	05/10/94	ND<9.90	9.90	µg/L	94-04198	
WNW8605	tcb_124	05/10/94	ND<9.90	9.90	µg/L	94-04198	UJ
WNW8605	tetcleth	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	tetcleth	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	toluene	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	toluene	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	tricleth	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	tricleth	05/10/94	ND<5.00	5.00	µg/L	94-04197	
WNW8605	vnyl_cl	12/07/93	ND<10.00	10.00	µg/L	93-13016	
WNW8605	vnyl_cl	05/10/94	ND<2.00	2.00	µg/L	94-04197	
WNW8605	xylene	12/07/93	ND<5.00	5.00	µg/L	93-13016	
WNW8605	xylene	05/10/94	ND<5.00	5.00	µg/L	94-04197	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
TILL-SAND							
WNW0202	a_bhc	11/11/93	ND<0.05	0.05	µg/L	93-11843	UJ
WNW0202	a_bhc	05/19/94	ND<0.05	0.05	µg/L	94-03518	UJ
WNW0202	a_chrldn	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	a_chrldn	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	aldrin	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	aldrin	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	b_bhc	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	b_bhc	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	d_24	11/25/91	ND<6.00	6.00	µg/L	91-11176	UJ
WNW0202	d_24	03/02/92	ND<2.00	2.00	µg/L	92-01869	
WNW0202	d_24	07/24/92	ND<10.00	10.00	µg/L	92-06724	
WNW0202	d_24	12/09/92	ND<10.00	10.00	µg/L	92-13295	
WNW0202	d_bhc	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	d_bhc	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	ddd_44	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	ddd_44	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	dde_44	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	dde_44	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	ddt_44	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	ddt_44	05/19/94	ND<0.10	0.10	µg/L	94-03518	UJ
WNW0202	dieldrin	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	dieldrin	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endos_1	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	endos_1	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endos_2	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	endos_2	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endos_s	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	endos_s	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endrin	11/25/91	ND<0.05	0.05	µg/L	91-11176	UJ
WNW0202	endrin	03/02/92	ND<0.05	0.05	µg/L	92-01868	
WNW0202	endrin	07/24/92	ND<0.10	0.10	µg/L	92-06723	
WNW0202	endrin	12/09/92	ND<0.10	0.10	µg/L	92-13294	
WNW0202	endrin	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	endrin	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endrn_al	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	endrn_kt	11/11/93	ND<0.10	0.10	µg/L	93-11843	
WNW0202	endrn_kt	05/19/94	ND<0.10	0.10	µg/L	94-03518	
WNW0202	g_bhc	11/25/91	ND<0.03	0.03	µg/L	91-11176	
WNW0202	g_bhc	03/02/92	ND<0.03	0.03	µg/L	92-01868	
WNW0202	g_bhc	07/24/92	ND<0.05	0.05	µg/L	92-06723	
WNW0202	g_bhc	12/09/92	ND<0.05	0.05	µg/L	92-13294	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0202	g_bhc	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	g_bhc	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	g_chlrdn	11/11/93	ND<1.00	1.00	µg/L	93-11843	
WNW0202	g_chlrdn	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	hept_clr	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	hept_clr	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	hept_epx	11/11/93	ND<0.05	0.05	µg/L	93-11843	
WNW0202	hept_epx	05/19/94	ND<0.05	0.05	µg/L	94-03518	
WNW0202	meth_xcl	11/25/91	ND<0.40	0.40	µg/L	91-11176	UJ
WNW0202	meth_xcl	03/02/92	ND<0.40	0.40	µg/L	92-01868	
WNW0202	meth_xcl	07/24/92	ND<0.50	0.50	µg/L	92-06723	
WNW0202	meth_xcl	12/09/92	ND<0.50	0.50	µg/L	92-13294	
WNW0202	meth_xcl	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	meth_xcl	05/19/94	ND<0.50	0.50	µg/L	94-03518	UJ
WNW0202	pcb_1016	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	pcb_1016	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	pcb_1221	11/11/93	ND<1.00	1.00	µg/L	93-11843	
WNW0202	pcb_1221	05/19/94	ND<1.00	1.00	µg/L	94-03518	
WNW0202	pcb_1232	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	pcb_1232	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	pcb_1242	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	pcb_1242	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	pcb_1248	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	pcb_1248	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	pcb_1254	11/11/93	ND<0.50	0.50	µg/L	93-11843	UJ
WNW0202	pcb_1254	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	pcb_1260	11/11/93	ND<0.50	0.50	µg/L	93-11843	
WNW0202	pcb_1260	05/19/94	ND<0.50	0.50	µg/L	94-03518	
WNW0202	silvex	11/25/91	ND<0.60	0.60	µg/L	91-11176	UJ
WNW0202	silvex	03/02/92	ND<0.20	0.20	µg/L	92-01869	
WNW0202	silvex	07/24/92	ND<2.00	2.00	µg/L	92-06724	
WNW0202	silvex	12/09/92	ND<2.00	2.00	µg/L	92-13295	
WNW0204	d_24	11/26/91	ND<2.00	2.00	µg/L	91-11201	
WNW0204	d_24	03/02/92	ND<2.00	2.00	µg/L	92-01891	
WNW0204	d_24	07/20/92	ND<10.00	10.00	µg/L	92-06750	
WNW0204	d_24	12/07/92	ND<10.00	10.00	µg/L	92-13321	
WNW0204	endrin	11/26/91	ND<0.05	0.05	µg/L	91-11201	
WNW0204	endrin	03/02/92	ND<0.05	0.05	µg/L	92-01890	
WNW0204	endrin	07/20/92	ND<0.10	0.10	µg/L	92-06749	
WNW0204	endrin	12/07/92	ND<0.10	0.10	µg/L	92-13320	
WNW0204	g_bhc	11/26/91	ND<0.03	0.03	µg/L	91-11201	
WNW0204	g_bhc	03/02/92	ND<0.03	0.03	µg/L	92-01890	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0204	g_bhc	07/20/92	ND<0.05	0.05	µg/L	92-06749	
WNW0204	g_bhc	12/07/92	ND<0.05	0.05	µg/L	92-13320	
WNW0204	meth_xcl	11/26/91	ND<0.40	0.40	µg/L	91-11201	
WNW0204	meth_xcl	03/02/92	ND<0.40	0.40	µg/L	92-01890	
WNW0204	meth_xcl	07/20/92	ND<0.50	0.50	µg/L	92-06749	
WNW0204	meth_xcl	12/07/92	ND<0.50	0.50	µg/L	92-13320	
WNW0204	silvex	11/26/91	ND<0.20	0.20	µg/L	91-11201	
WNW0204	silvex	03/02/92	ND<0.20	0.20	µg/L	92-01891	
WNW0204	silvex	07/20/92	ND<2.00	2.00	µg/L	92-06750	
WNW0204	silvex	12/07/92	ND<2.00	2.00	µg/L	92-13321	
WNW0206	d_24	11/26/91	ND<2.00	2.00	µg/L	91-11224	
WNW0206	d_24	03/02/92	ND<1.00	1.00	µg/L	92-01913	
WNW0206	d_24	07/20/92	ND<10.00	10.00	µg/L	92-07778	
WNW0206	d_24	12/07/92	ND<10.00	10.00	µg/L	92-13347	
WNW0206	endrin	11/26/91	ND<0.05	0.05	µg/L	91-11224	
WNW0206	endrin	03/02/92	ND<0.05	0.05	µg/L	92-01912	
WNW0206	endrin	07/20/92	ND<0.10	0.10	µg/L	92-07777	
WNW0206	endrin	12/07/92	ND<0.10	0.10	µg/L	92-13346	
WNW0206	g_bhc	11/26/91	ND<0.03	0.03	µg/L	91-11224	
WNW0206	g_bhc	03/02/92	ND<0.03	0.03	µg/L	92-01912	
WNW0206	g_bhc	07/20/92	ND<0.05	0.05	µg/L	92-07777	
WNW0206	g_bhc	12/07/92	ND<0.05	0.05	µg/L	92-13346	
WNW0206	meth_xcl	11/26/91	ND<0.40	0.40	µg/L	91-11224	
WNW0206	meth_xcl	03/02/92	ND<0.40	0.40	µg/L	92-01912	
WNW0206	meth_xcl	07/20/92	ND<0.50	0.50	µg/L	92-07777	
WNW0206	meth_xcl	12/07/92	ND<0.50	0.50	µg/L	92-13346	
WNW0206	silvex	11/26/91	ND<0.20	0.20	µg/L	91-11224	
WNW0206	silvex	03/02/92	ND<0.10	0.10	µg/L	92-01913	
WNW0206	silvex	07/20/92	ND<2.00	2.00	µg/L	92-07778	
WNW0206	silvex	12/07/92	ND<2.00	2.00	µg/L	92-13347	
WNW0208	d_24	11/27/91	ND<8.00	8.00	µg/L	91-11248	
WNW0208	d_24	03/02/92	ND<1.00	1.00	µg/L	92-01935	
WNW0208	d_24	07/24/92	ND<10.00	10.00	µg/L	92-06789	
WNW0208	d_24	07/24/92	ND<10.00	10.00	µg/L	92-07744	
WNW0208	d_24	12/07/92	ND<10.00	10.00	µg/L	92-13373	
WNW0208	endrin	11/27/91	ND<0.05	0.05	µg/L	91-11248	
WNW0208	endrin	03/02/92	ND<0.05	0.05	µg/L	92-01934	
WNW0208	endrin	07/24/92	ND<0.10	0.10	µg/L	92-06788	
WNW0208	endrin	07/24/92	ND<0.10	0.10	µg/L	92-07743	
WNW0208	endrin	12/07/92	ND<0.10	0.10	µg/L	92-13372	
WNW0208	g_bhc	11/27/91	ND<0.03	0.03	µg/L	91-11248	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0208	g_bhc	03/02/92	ND<0.03	0.03	µg/L	92-01934	
WNW0208	g_bhc	07/24/92	ND<0.05	0.05	µg/L	92-06788	
WNW0208	g_bhc	07/24/92	ND<0.05	0.05	µg/L	92-07743	
WNW0208	g_bhc	12/07/92	ND<0.05	0.05	µg/L	92-13372	
WNW0208	meth_xcl	11/27/91	ND<0.40	0.40	µg/L	91-11248	
WNW0208	meth_xcl	03/02/92	ND<0.40	0.40	µg/L	92-01934	
WNW0208	meth_xcl	07/24/92	ND<0.50	0.50	µg/L	92-06788	
WNW0208	meth_xcl	07/24/92	ND<0.50	0.50	µg/L	92-07743	
WNW0208	meth_xcl	12/07/92	ND<0.50	0.50	µg/L	92-13372	
WNW0208	silvex	11/27/91	ND<0.80	0.80	µg/L	91-11248	
WNW0208	silvex	03/02/92	ND<0.10	0.10	µg/L	92-01935	
WNW0208	silvex	07/24/92	ND<2.00	2.00	µg/L	92-06789	
WNW0208	silvex	07/24/92	ND<2.00	2.00	µg/L	92-07744	
WNW0208	silvex	12/07/92	ND<2.00	2.00	µg/L	92-13373	
Sand and Gravel							
WNW0201	a_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	a_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	a_chrldn	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	a_chrldn	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	aldrin	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	aldrin	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	b_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	b_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	d_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	d_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	ddd_44	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	ddd_44	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	dde_44	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	dde_44	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	ddt_44	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	ddt_44	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	dieldrin	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	dieldrin	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	endos_1	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	endos_1	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	endos_2	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	endos_2	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	endos_s	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	endos_s	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	endrin	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	endrin	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0201	endrn_al	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	endrn_kt	11/09/93	ND<0.10	0.10	µg/L	93-11822	
WNW0201	endrn_kt	05/12/94	ND<0.10	0.10	µg/L	94-03502	UJ
WNW0201	g_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	g_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	g_chlrdn	11/09/93	ND<1.00	1.00	µg/L	93-11822	UJ
WNW0201	g_chlrdn	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	hept_clr	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	hept_clr	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	hept_epx	11/09/93	ND<0.05	0.05	µg/L	93-11822	
WNW0201	hept_epx	05/12/94	ND<0.05	0.05	µg/L	94-03502	UJ
WNW0201	meth_xcl	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	meth_xcl	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1016	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1016	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1221	11/09/93	ND<1.00	1.00	µg/L	93-11822	
WNW0201	pcb_1221	05/12/94	ND<1.00	1.00	µg/L	94-03502	UJ
WNW0201	pcb_1232	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1232	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1242	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1242	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1248	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1248	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1254	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1254	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0201	pcb_1260	11/09/93	ND<0.50	0.50	µg/L	93-11822	
WNW0201	pcb_1260	05/12/94	ND<0.50	0.50	µg/L	94-03502	UJ
WNW0203	a_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11853	UJ
WNW0203	a_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	a_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	a_chrldn	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	a_chrldn	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	a_chrldn	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	aldrin	11/09/93	ND<0.05	0.05	µg/L	93-11853	
WNW0203	aldrin	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	aldrin	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	b_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11853	
WNW0203	b_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	b_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	d_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11853	UJ
WNW0203	d_bhc	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	d_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	ddd_44	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	ddd_44	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	ddd_44	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	dde_44	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	dde_44	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	dde_44	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	ddt_44	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	ddt_44	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	ddt_44	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	dieldrin	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	dieldrin	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	dieldrin	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endos_1	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	endos_1	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endos_1	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	endos_2	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	endos_2	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endos_2	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	endos_s	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	endos_s	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	endos_s	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endrin	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	endrin	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	endrin	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endrn_al	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	endrn_al	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endrn_kt	11/09/93	ND<0.10	0.10	µg/L	93-11853	
WNW0203	endrn_kt	05/12/94	ND<0.10	0.10	µg/L	94-03534	UJ
WNW0203	endrn_kt	05/12/94	ND<0.10	0.10	µg/L	94-03608	UJ
WNW0203	g_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11853	UJ
WNW0203	g_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	g_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	g_chlrdn	11/09/93	ND<1.00	1.00	µg/L	93-11853	UJ
WNW0203	g_chlrdn	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	g_chlrdn	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	hept_clr	11/09/93	ND<0.05	0.05	µg/L	93-11853	
WNW0203	hept_clr	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	hept_clr	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	hept_epx	11/09/93	ND<0.05	0.05	µg/L	93-11853	
WNW0203	hept_epx	05/12/94	ND<0.05	0.05	µg/L	94-03608	UJ
WNW0203	hept_epx	05/12/94	ND<0.05	0.05	µg/L	94-03534	UJ
WNW0203	meth_xcl	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	meth_xcl	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0203	meth_xcl	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1016	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1016	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	pcb_1016	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1221	11/09/93	ND<1.00	1.00	µg/L	93-11853	
WNW0203	pcb_1221	05/12/94	ND<1.00	1.00	µg/L	94-03608	UJ
WNW0203	pcb_1221	05/12/94	ND<1.00	1.00	µg/L	94-03534	UJ
WNW0203	pcb_1232	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1232	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1232	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	pcb_1242	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1242	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1242	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	pcb_1248	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1248	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	pcb_1248	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1254	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1254	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0203	pcb_1254	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1260	11/09/93	ND<0.50	0.50	µg/L	93-11853	
WNW0203	pcb_1260	05/12/94	ND<0.50	0.50	µg/L	94-03534	UJ
WNW0203	pcb_1260	05/12/94	ND<0.50	0.50	µg/L	94-03608	UJ
WNW0205	a_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11869	UJ
WNW0205	a_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	a_chrldn	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	a_chrldn	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	aldrin	11/09/93	ND<0.05	0.05	µg/L	93-11869	
WNW0205	aldrin	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	b_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11869	
WNW0205	b_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	d_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11869	UJ
WNW0205	d_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	ddd_44	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	ddd_44	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	dde_44	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	dde_44	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	ddt_44	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	ddt_44	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	dieldrin	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	dieldrin	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	endos_1	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	endos_1	05/12/94	ND<0.10	0.10	µg/L	94-03559	R

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW0205	endos_2	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	endos_2	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	endos_s	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	endos_s	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	endrin	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	endrin	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	endrn_al	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	endrn_kt	11/09/93	ND<0.10	0.10	µg/L	93-11869	
WNW0205	endrn_kt	05/12/94	ND<0.10	0.10	µg/L	94-03559	R
WNW0205	g_bhc	11/09/93	ND<0.05	0.05	µg/L	93-11869	UJ
WNW0205	g_bhc	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	g_chlrdn	11/09/93	ND<1.00	1.00	µg/L	93-11869	UJ
WNW0205	g_chlrdn	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	hept_clr	11/09/93	ND<0.05	0.05	µg/L	93-11869	
WNW0205	hept_clr	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	hept_epx	11/09/93	ND<0.05	0.05	µg/L	93-11869	
WNW0205	hept_epx	05/12/94	ND<0.05	0.05	µg/L	94-03559	R
WNW0205	meth_xcl	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	meth_xcl	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1016	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1016	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1221	11/09/93	ND<1.00	1.00	µg/L	93-11869	
WNW0205	pcb_1221	05/12/94	ND<1.00	1.00	µg/L	94-03559	R
WNW0205	pcb_1232	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1232	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1242	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1242	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1248	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1248	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1254	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1254	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW0205	pcb_1260	11/09/93	ND<0.50	0.50	µg/L	93-11869	
WNW0205	pcb_1260	05/12/94	ND<0.50	0.50	µg/L	94-03559	R
WNW8605	a_bhc	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	a_bhc	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	a_chrldn	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	a_chrldn	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	aldrin	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	aldrin	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	b_bhc	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	b_bhc	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	d_bhc	12/07/93	ND<0.01	0.01	µg/L	93-13018	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	d_bhc	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	ddd_44	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	ddd_44	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	dde_44	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	dde_44	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	ddt_44	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	ddt_44	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	dieldrin	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	dieldrin	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	endos_1	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endos_1	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	endos_2	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endos_2	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	endos_s	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endos_s	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	endrin	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endrin	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	endrn_al	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endrn_al	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	endrn_kt	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	endrn_kt	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	g_bhc	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	g_bhc	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	g_chlrdn	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	g_chlrdn	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	hept_clr	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	hept_clr	05/10/94	ND<0.01	0.01	µg/L	94-04200	
WNW8605	hept_epx	12/07/93	ND<0.01	0.01	µg/L	93-13018	
WNW8605	hept_epx	05/10/94	ND<0.00	0.00	µg/L	94-04200	
WNW8605	meth_xcl	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	meth_xcl	05/10/94	ND<0.10	0.10	µg/L	94-04200	
WNW8605	pcb_1016	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	pcb_1016	05/10/94	ND<0.10	0.10	µg/L	94-04200	
WNW8605	pcb_1221	12/07/93	ND<0.20	0.20	µg/L	93-13018	
WNW8605	pcb_1221	05/10/94	ND<0.20	0.20	µg/L	94-04200	
WNW8605	pcb_1232	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	pcb_1232	05/10/94	ND<0.10	0.10	µg/L	94-04200	
WNW8605	pcb_1242	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	pcb_1242	05/10/94	ND<0.10	0.10	µg/L	94-04200	
WNW8605	pcb_1248	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	pcb_1248	05/10/94	ND<0.10	0.10	µg/L	94-04200	
WNW8605	pcb_1254	12/07/93	ND<0.10	0.10	µg/L	93-13018	
WNW8605	pcb_1254	05/10/94	ND<0.10	0.10	µg/L	94-04200	

MSU Expanded Groundwater Pesticides/PCBs Data
for 4th Rd. 1993 & 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Result	Units	Sample_ID	Flags
WNW8605	pcb_1260	12/07/93	ND<0.10	0.10	μg/L	93-13018	
WNW8605	pcb_1260	05/10/94	ND<0.10	0.10	μg/L	94-04200	

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Appendix E

99% Confidence Interval Comparisons of Groundwater Parameters

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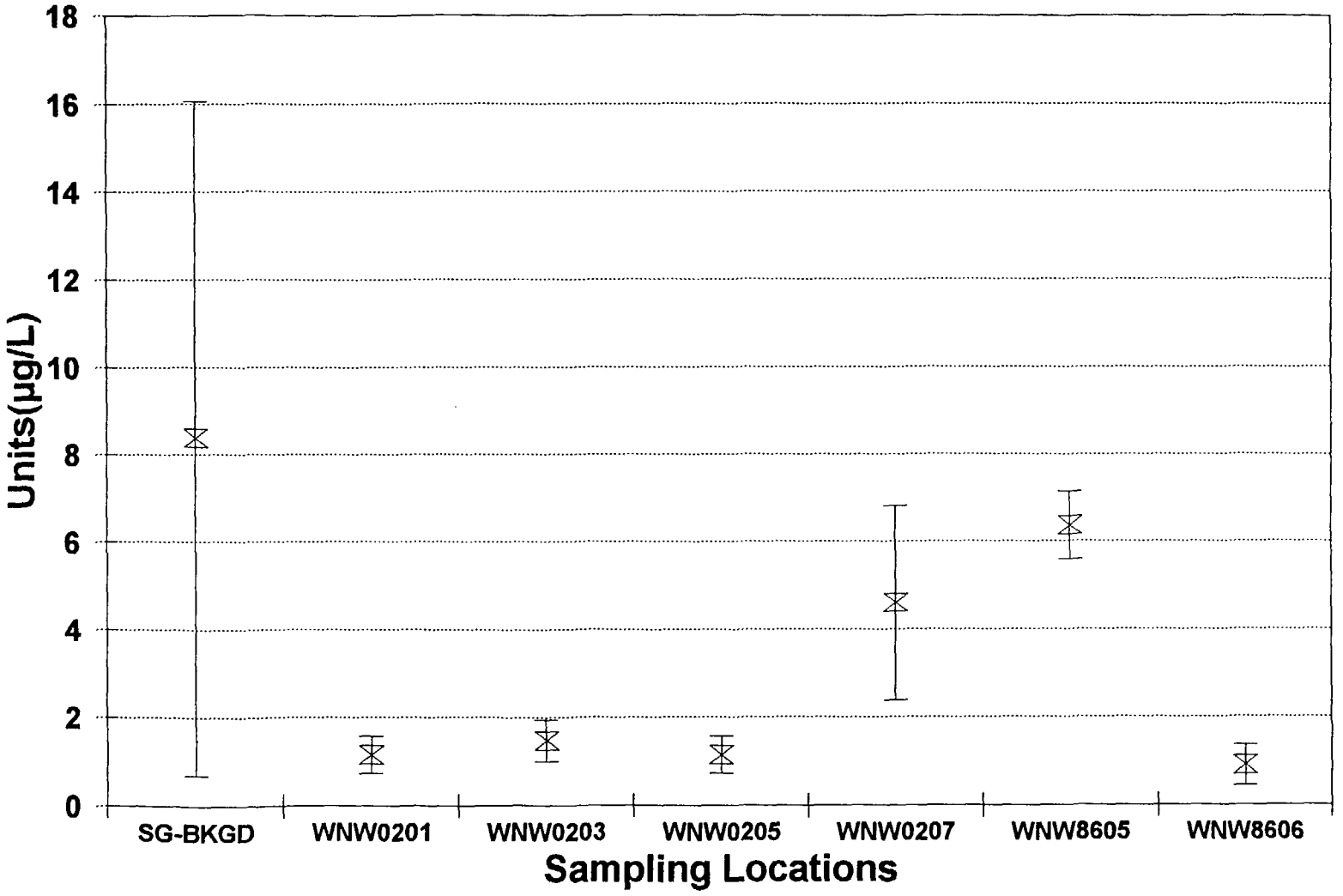
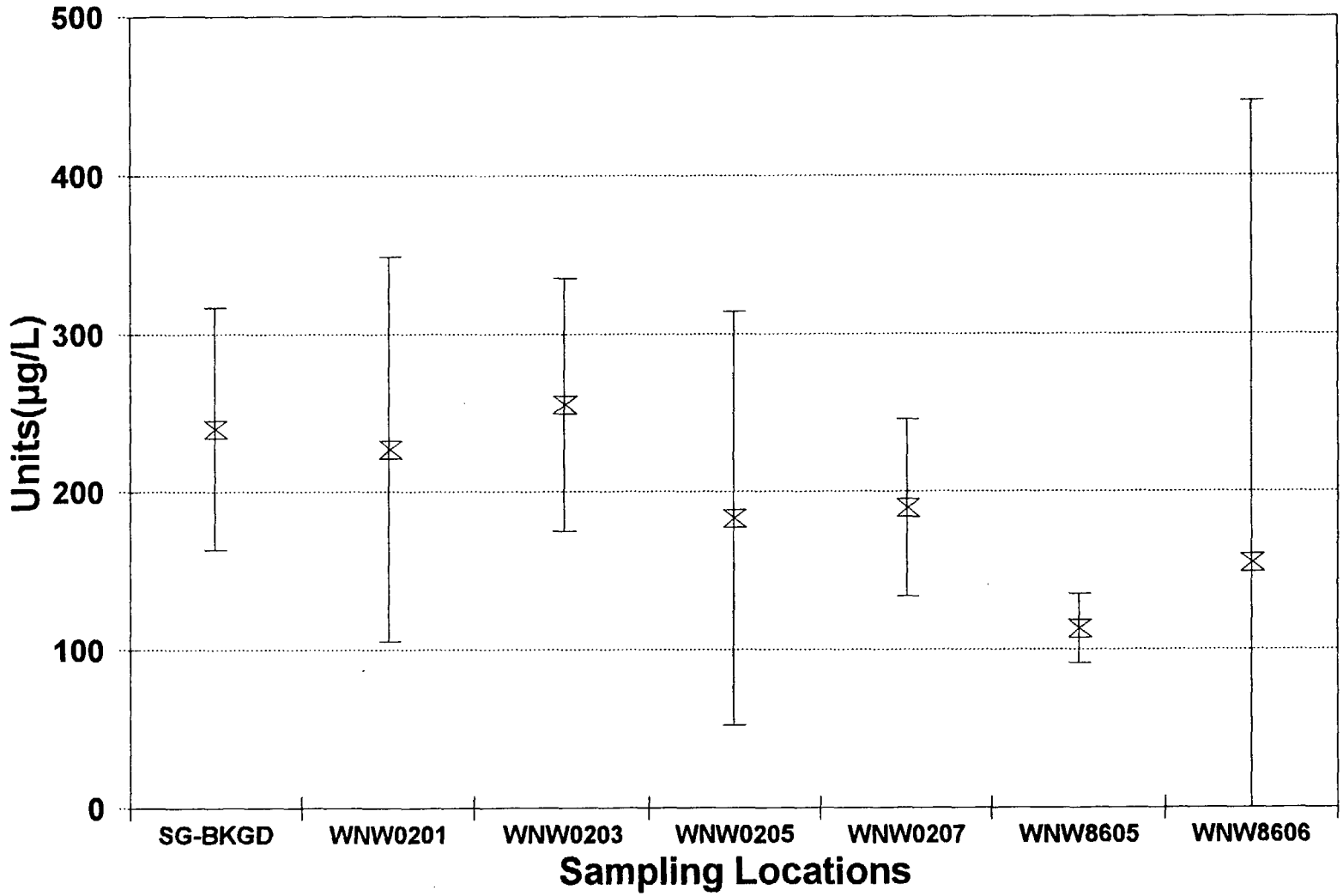
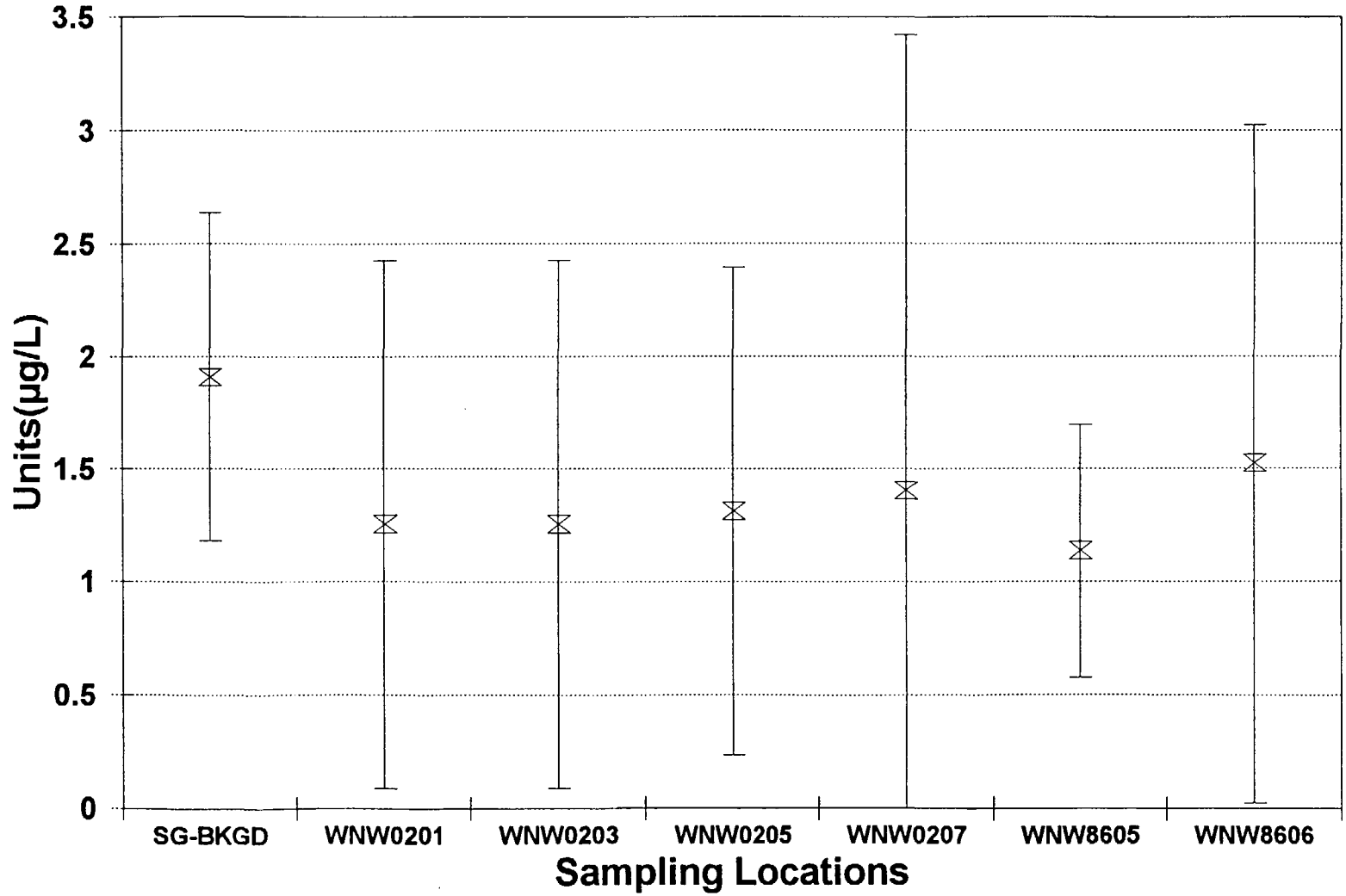


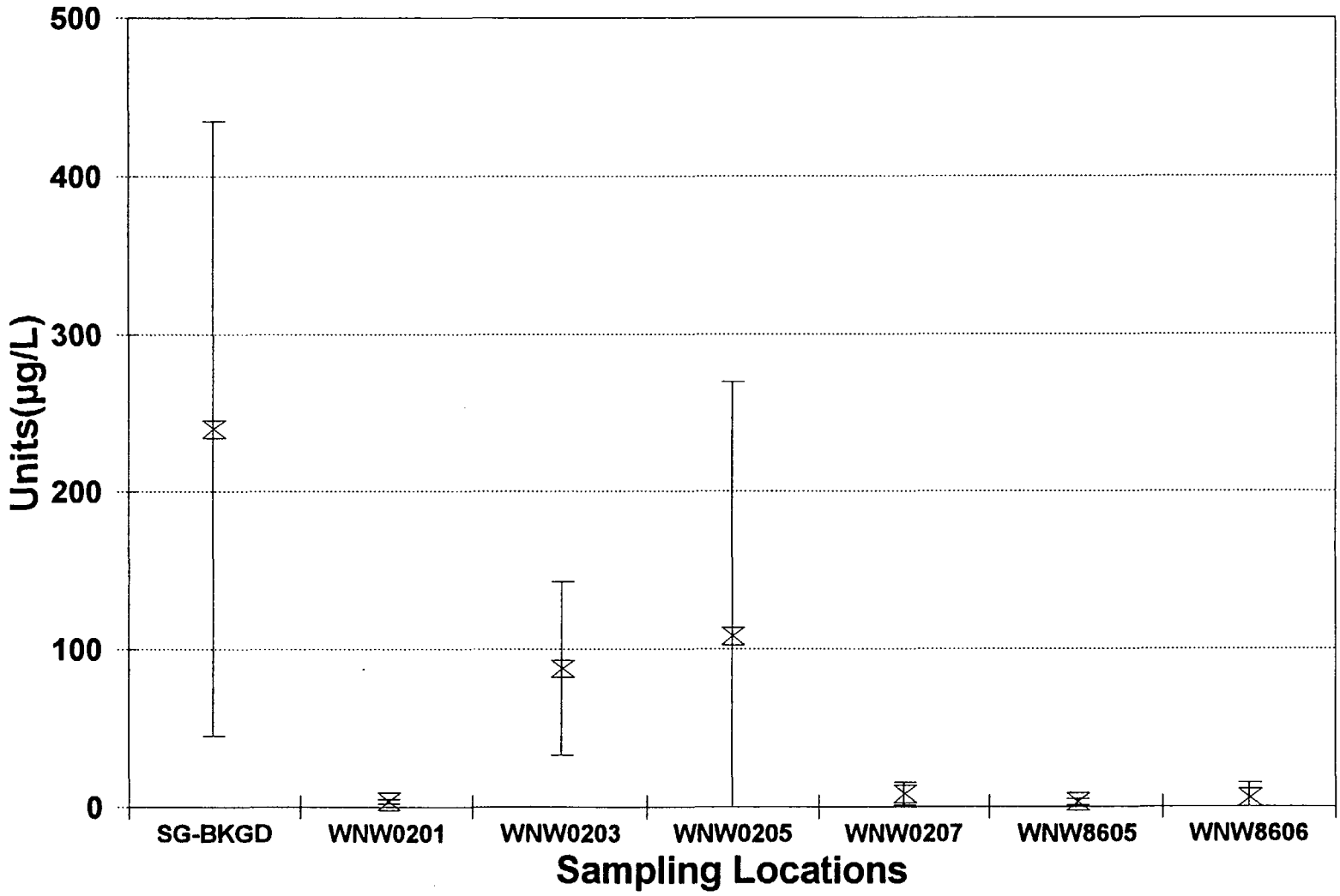
Note: SG-BKGD is combination of Wells -WNW0301, WNW0401, and WNW0706



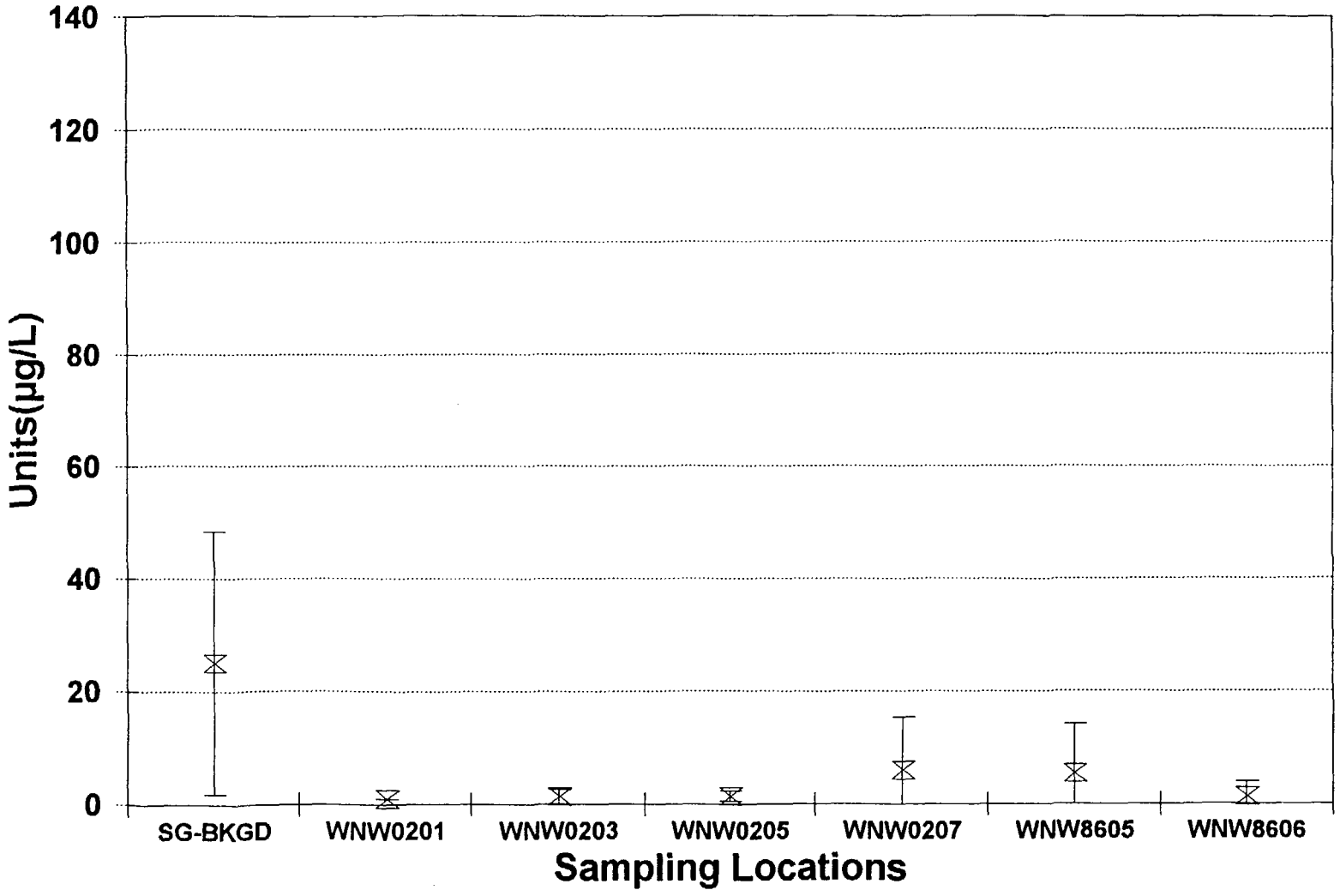
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



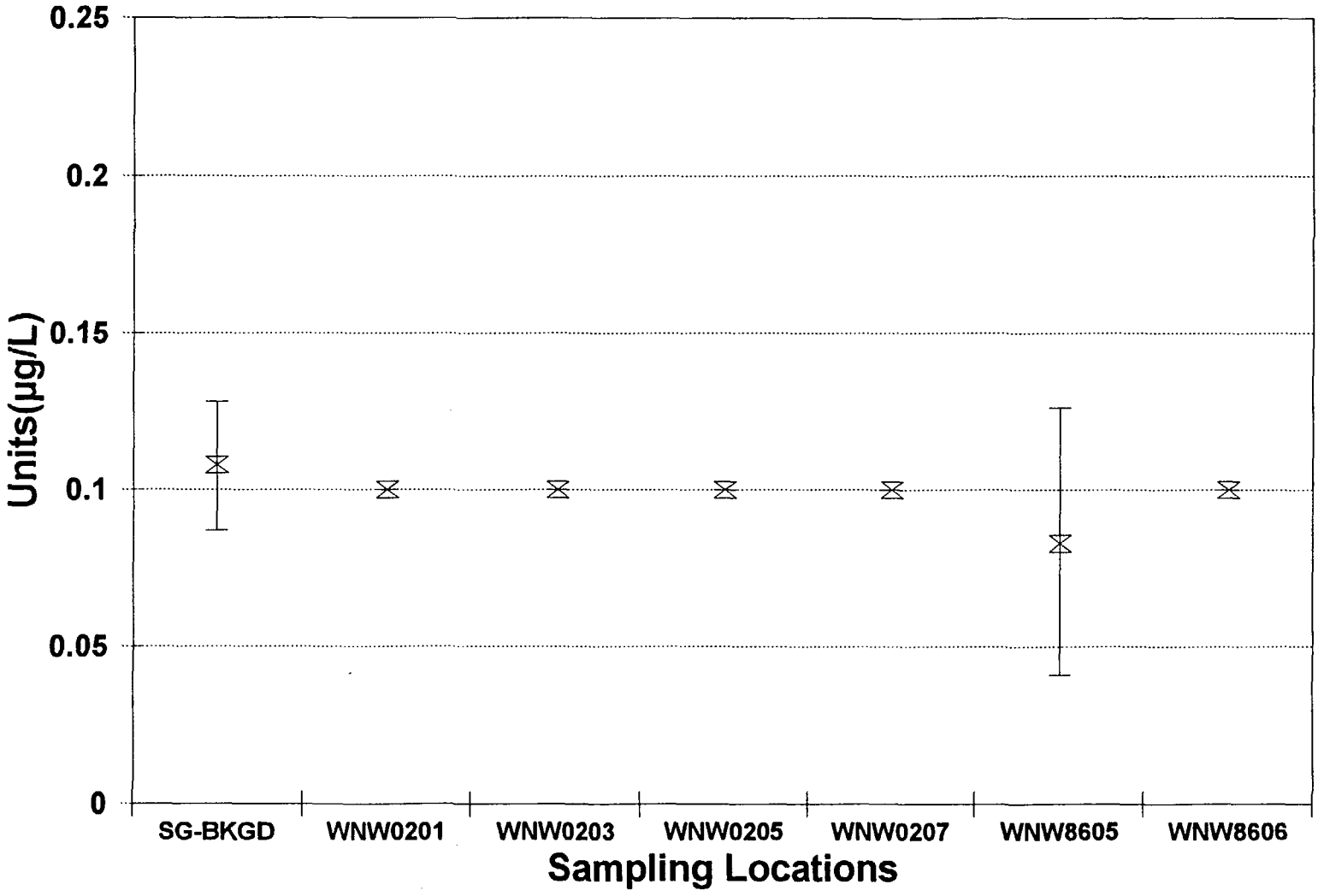
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



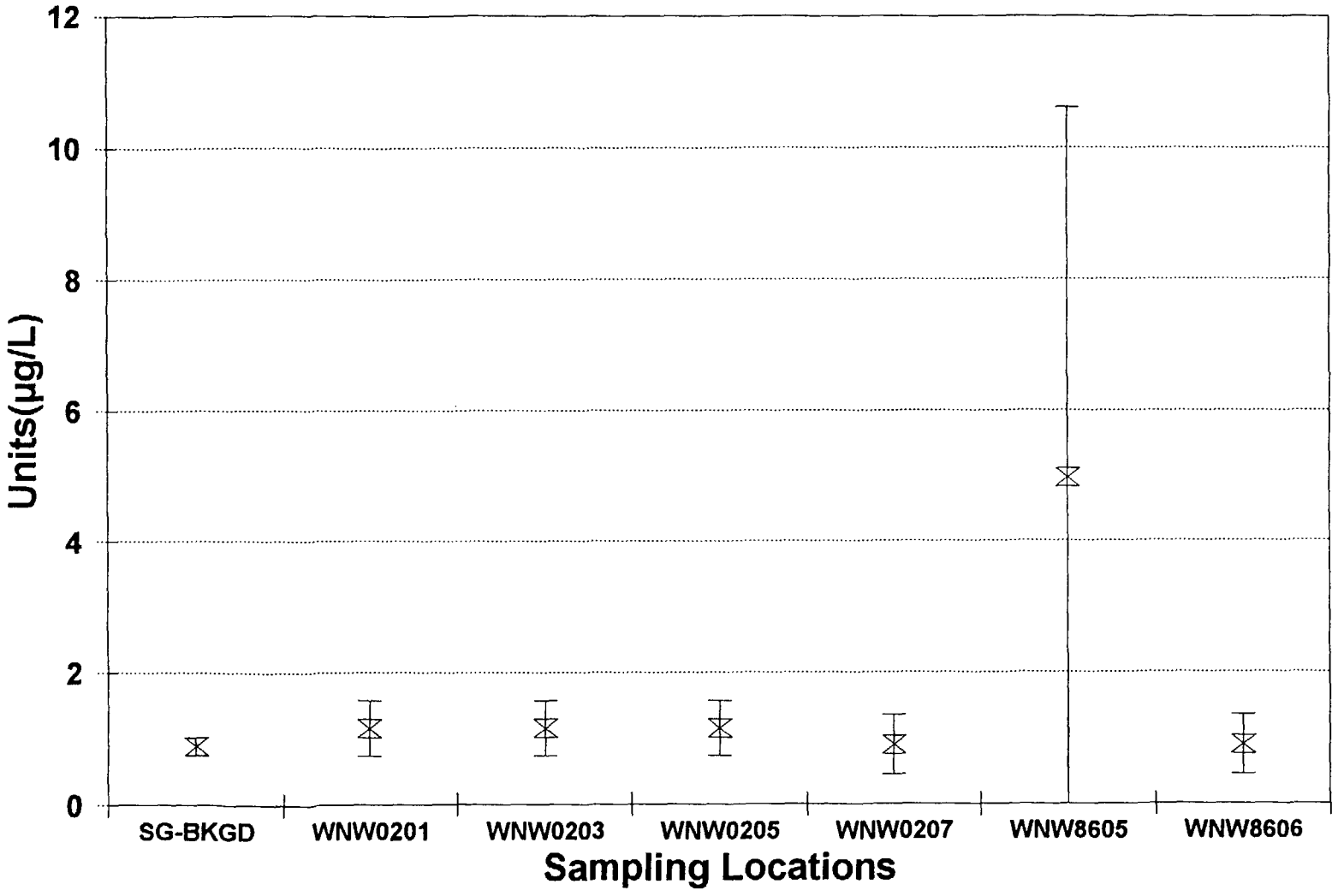
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



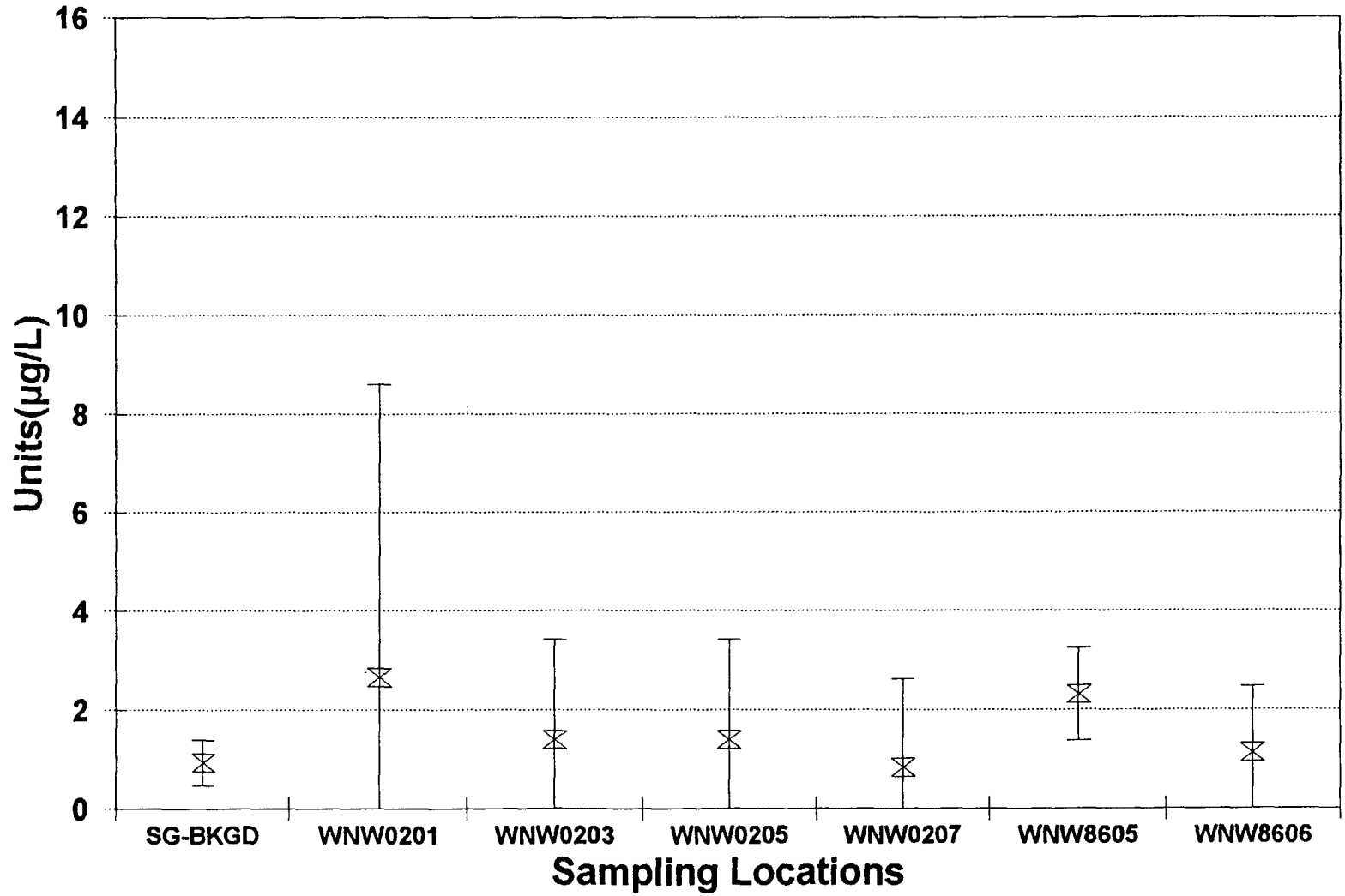
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



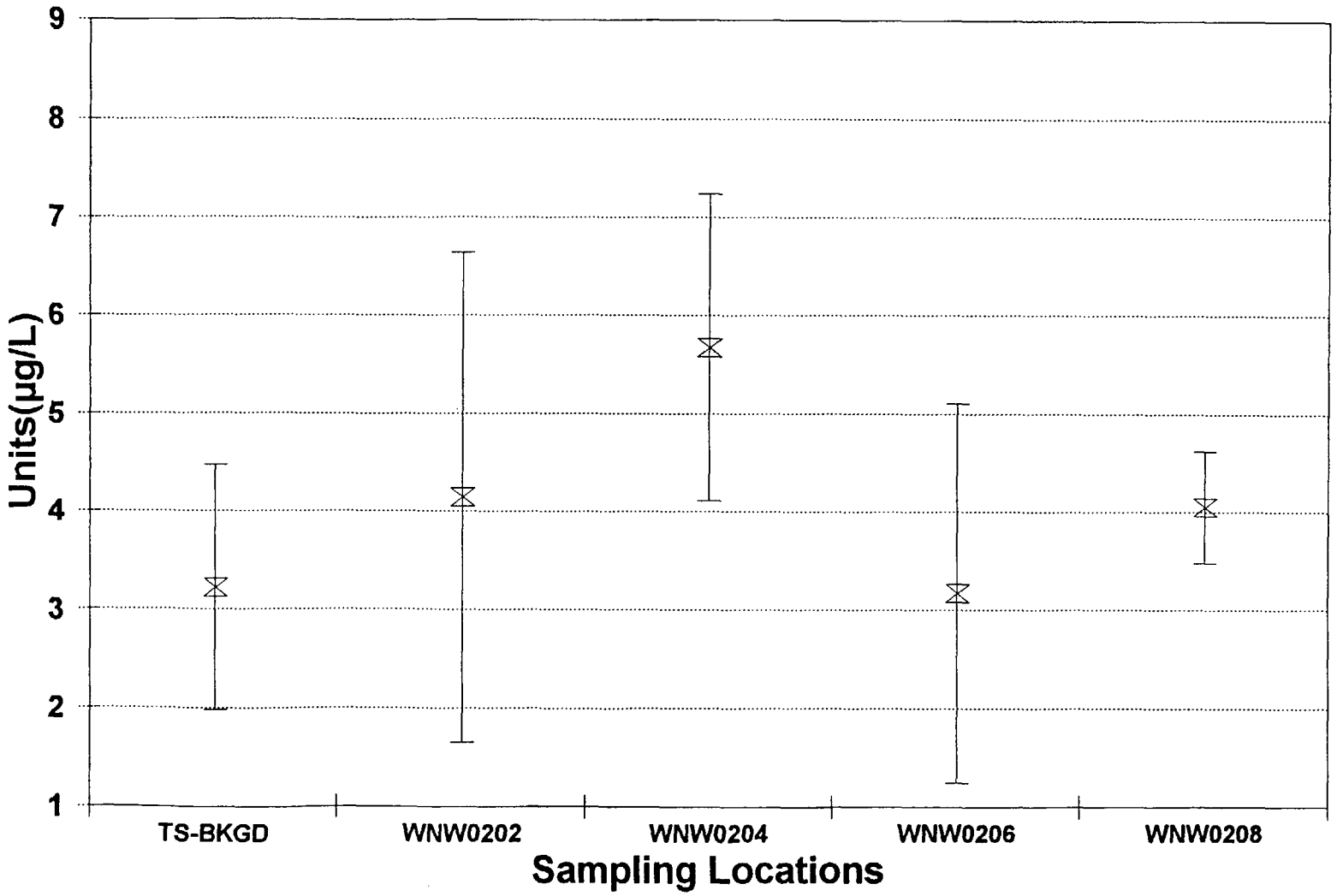
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



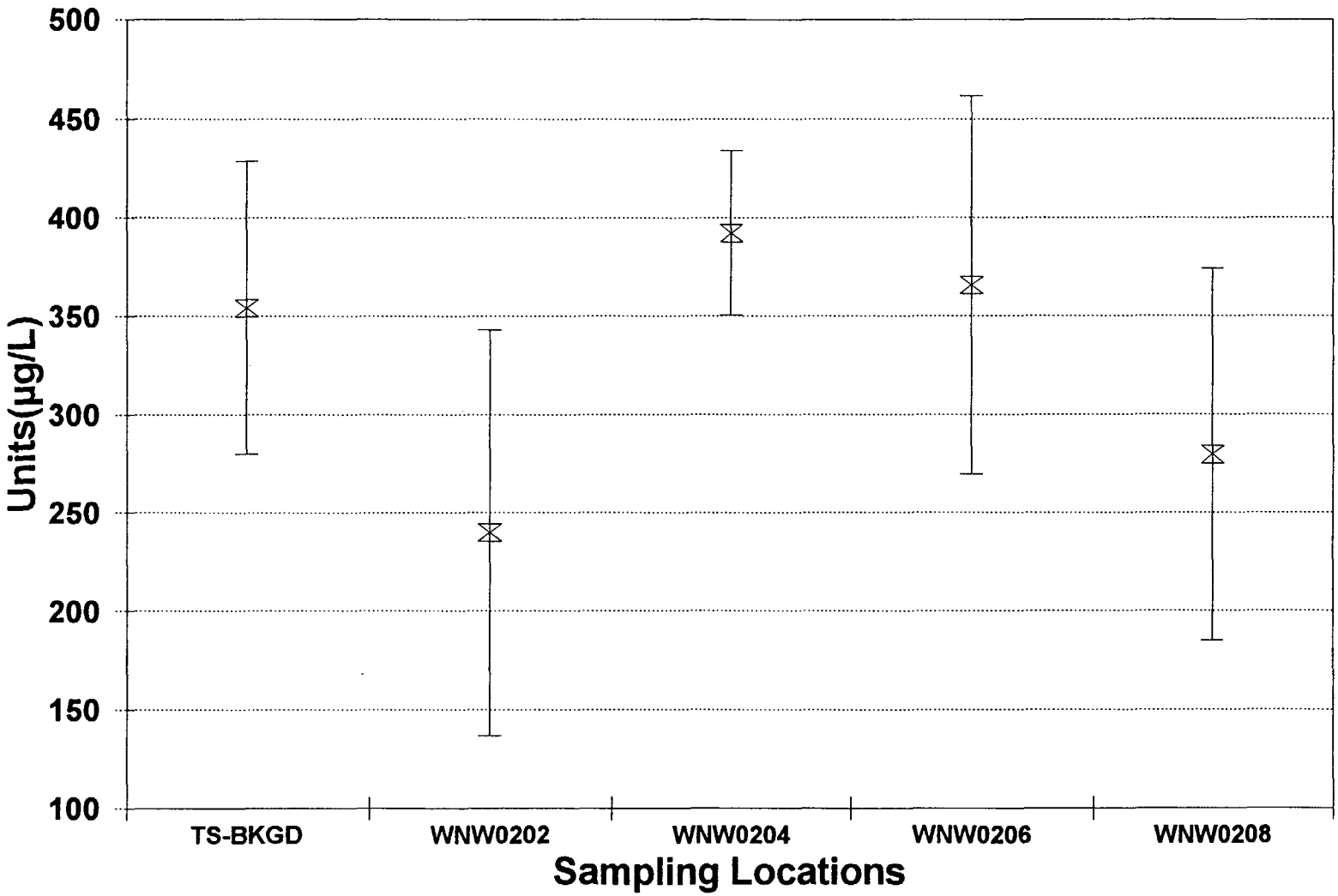
Note: SG-BKGD is combination of Wells - WNW0301, WNW0401, and WNW0706



Note: SG-BKGD is combination of Wells -WNW0301, WNW0401, and WNW0706

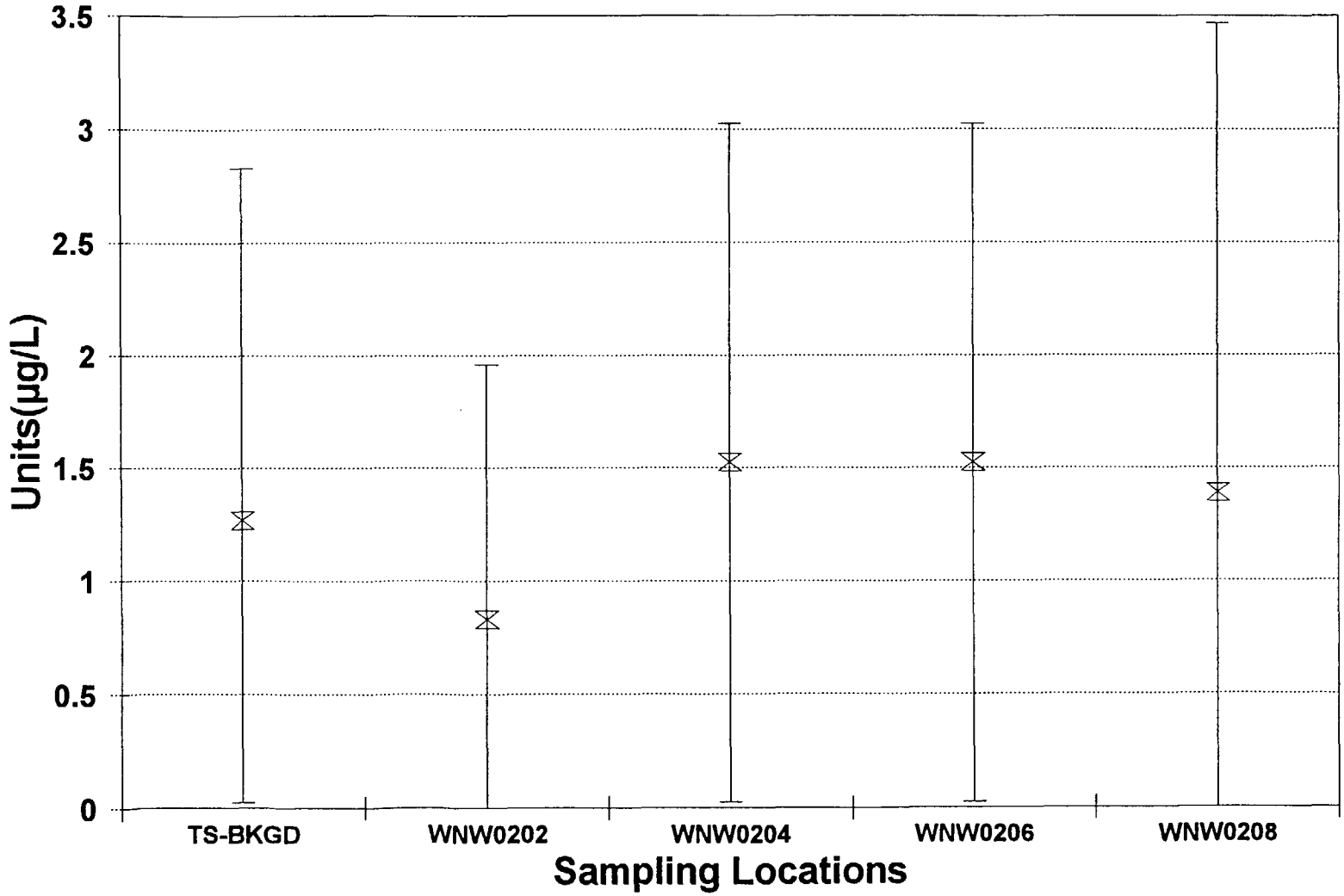


Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404

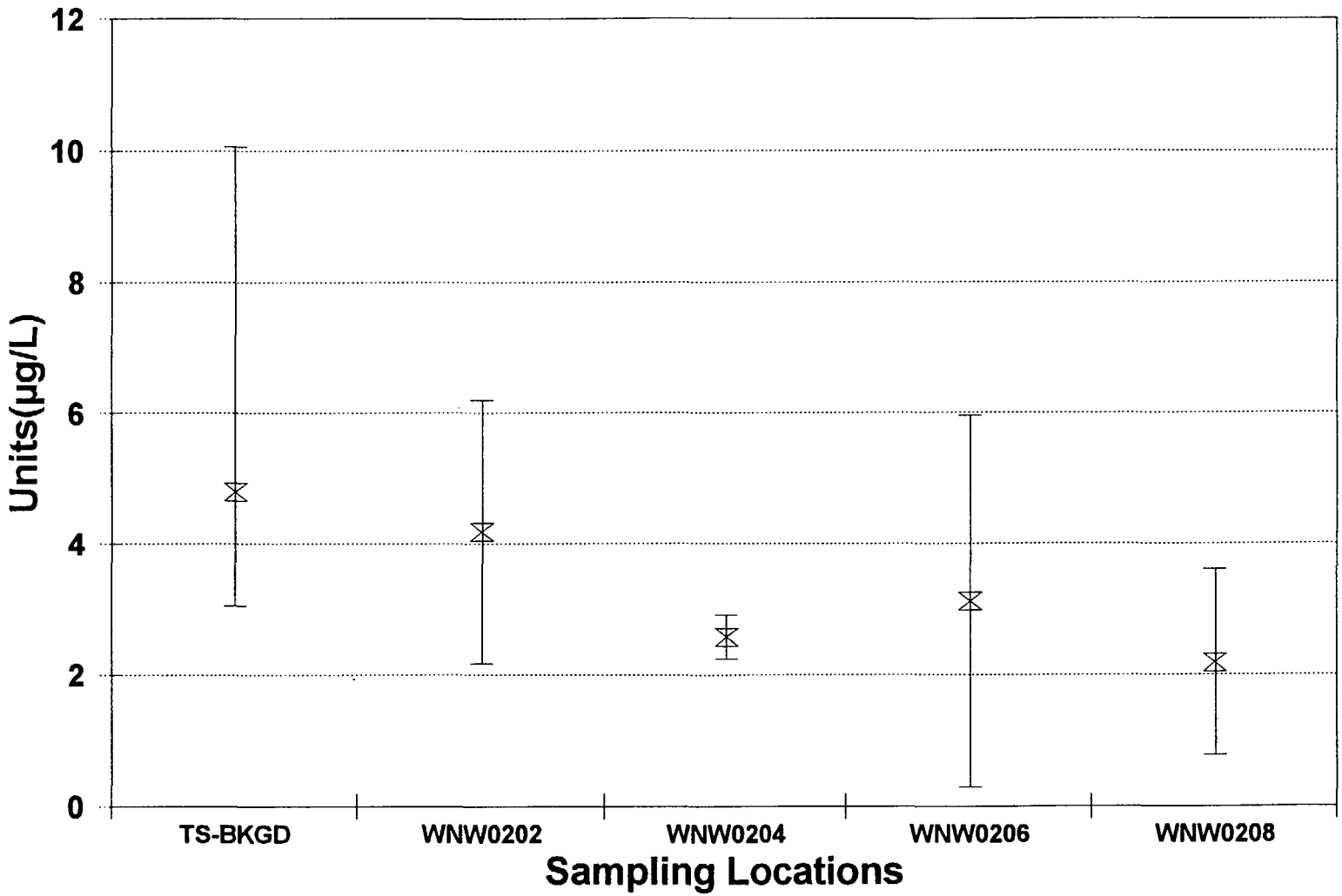


Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404

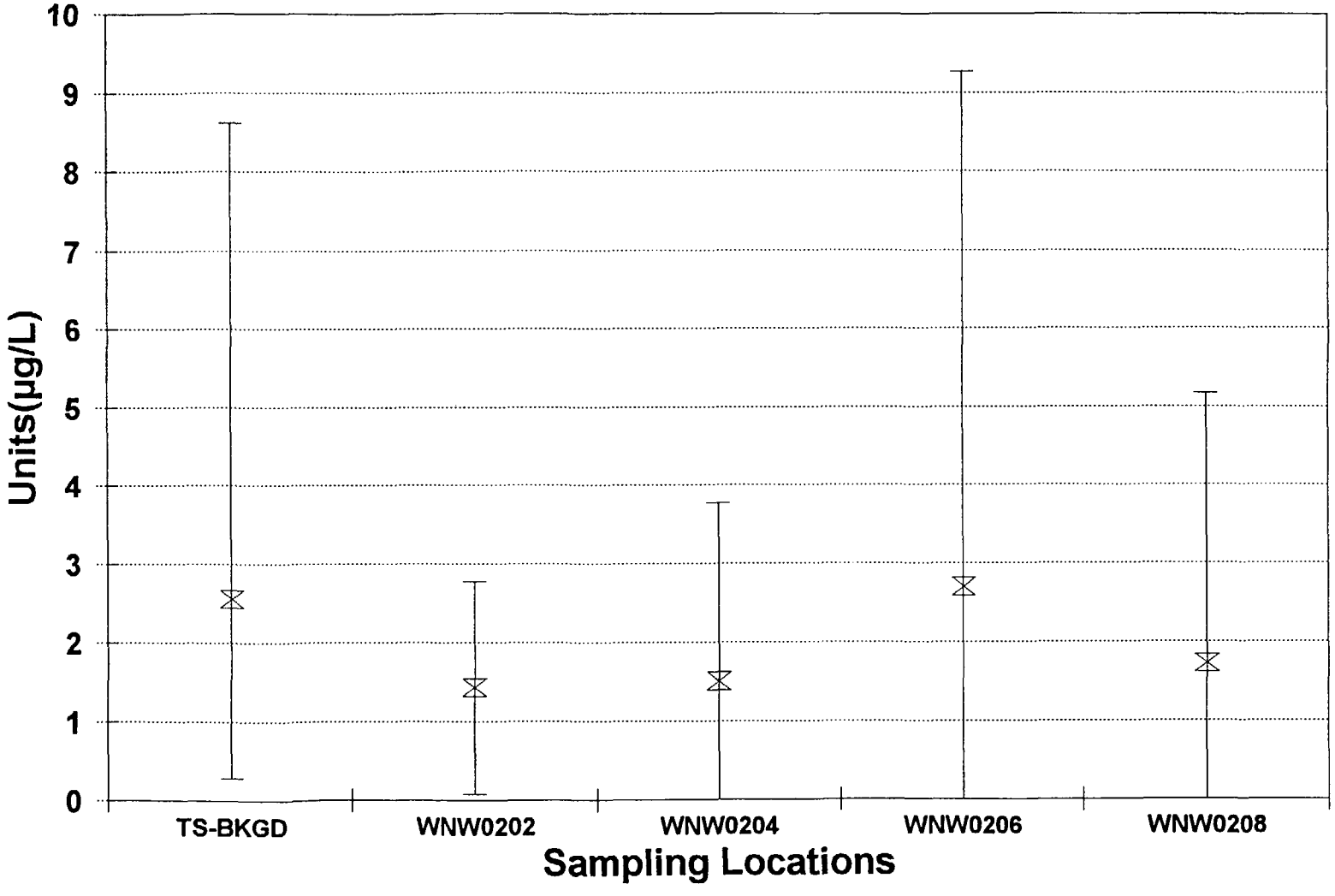
Cadmium in the Till-Sand Unit
99% Confidence Intervals



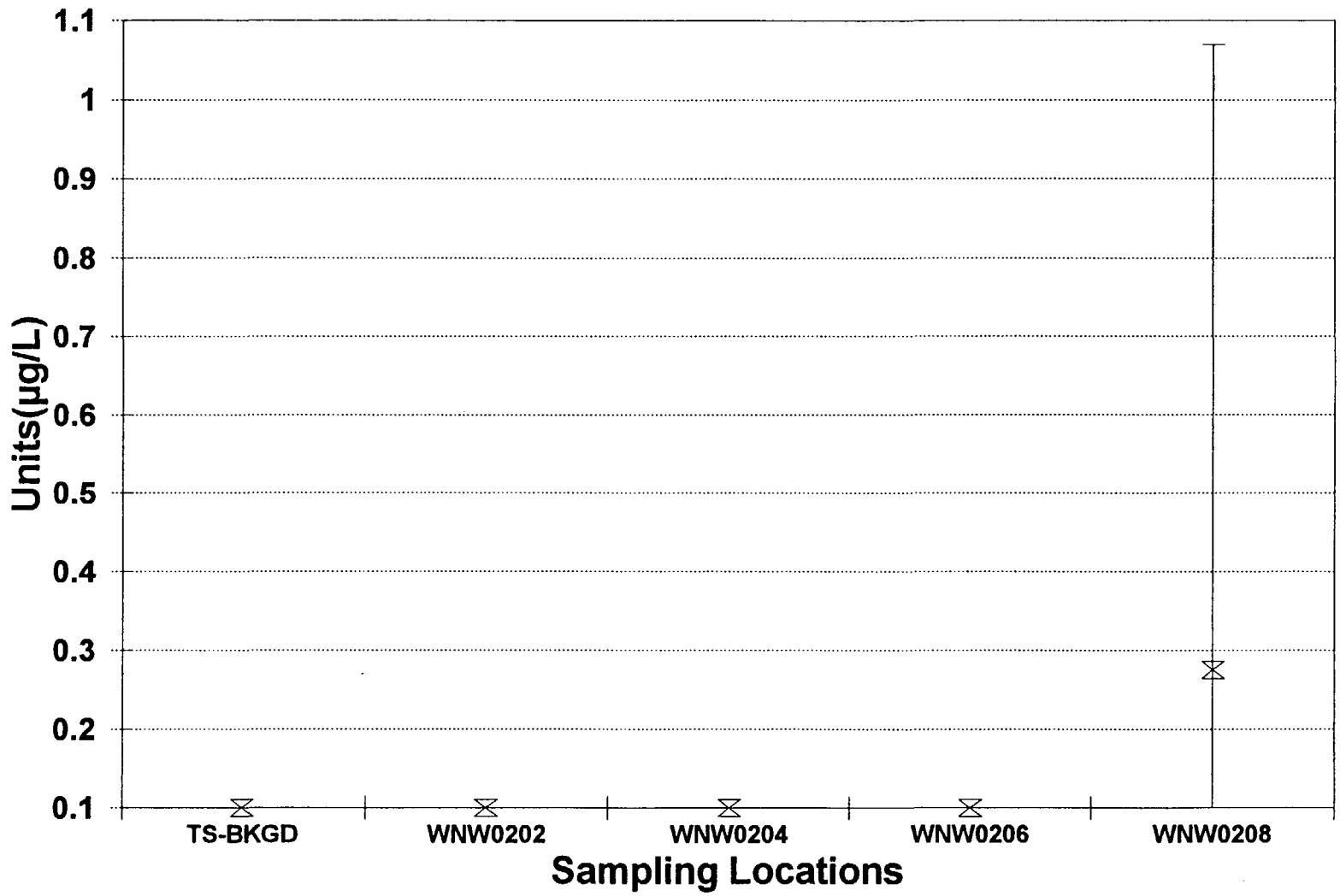
Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404



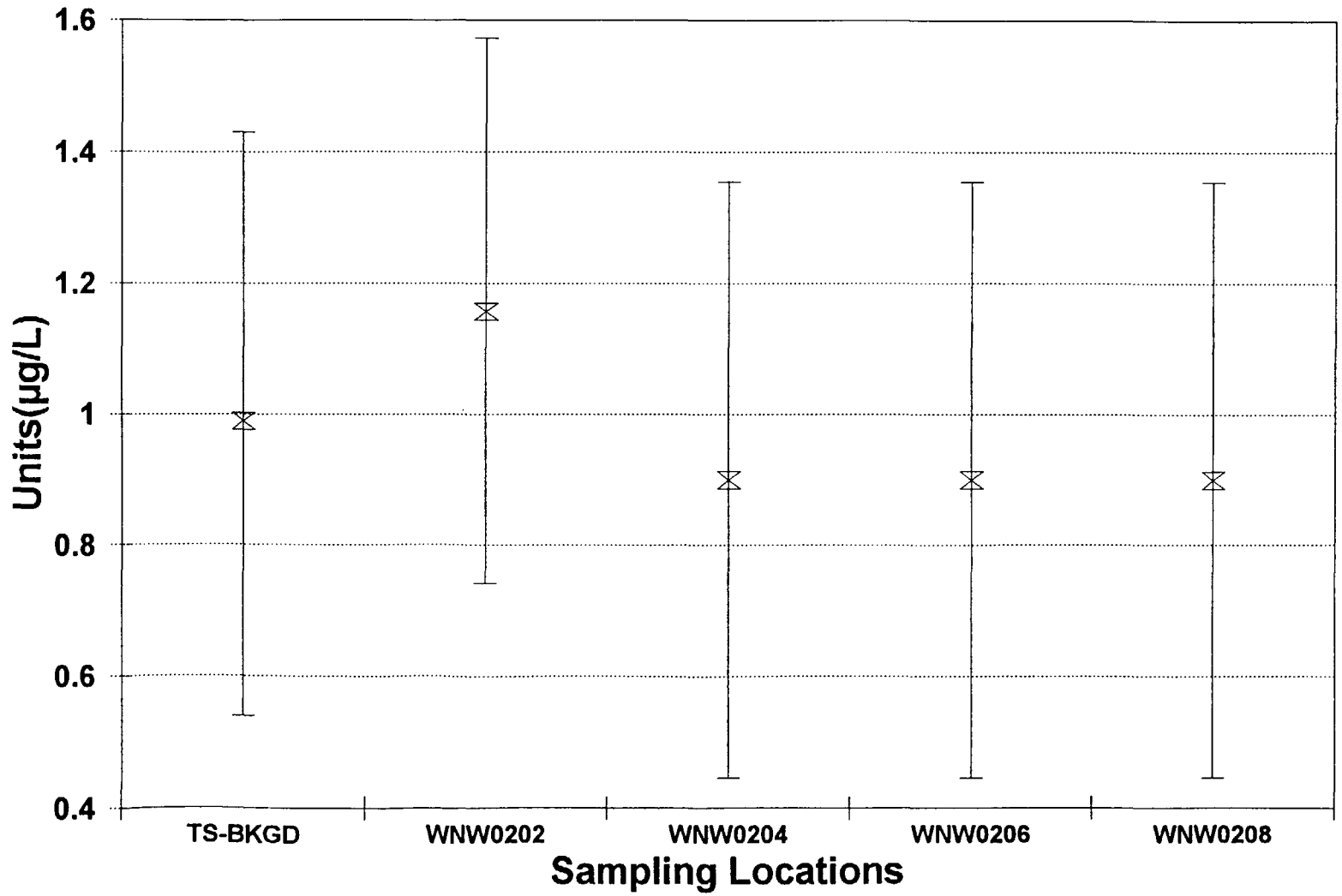
Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404



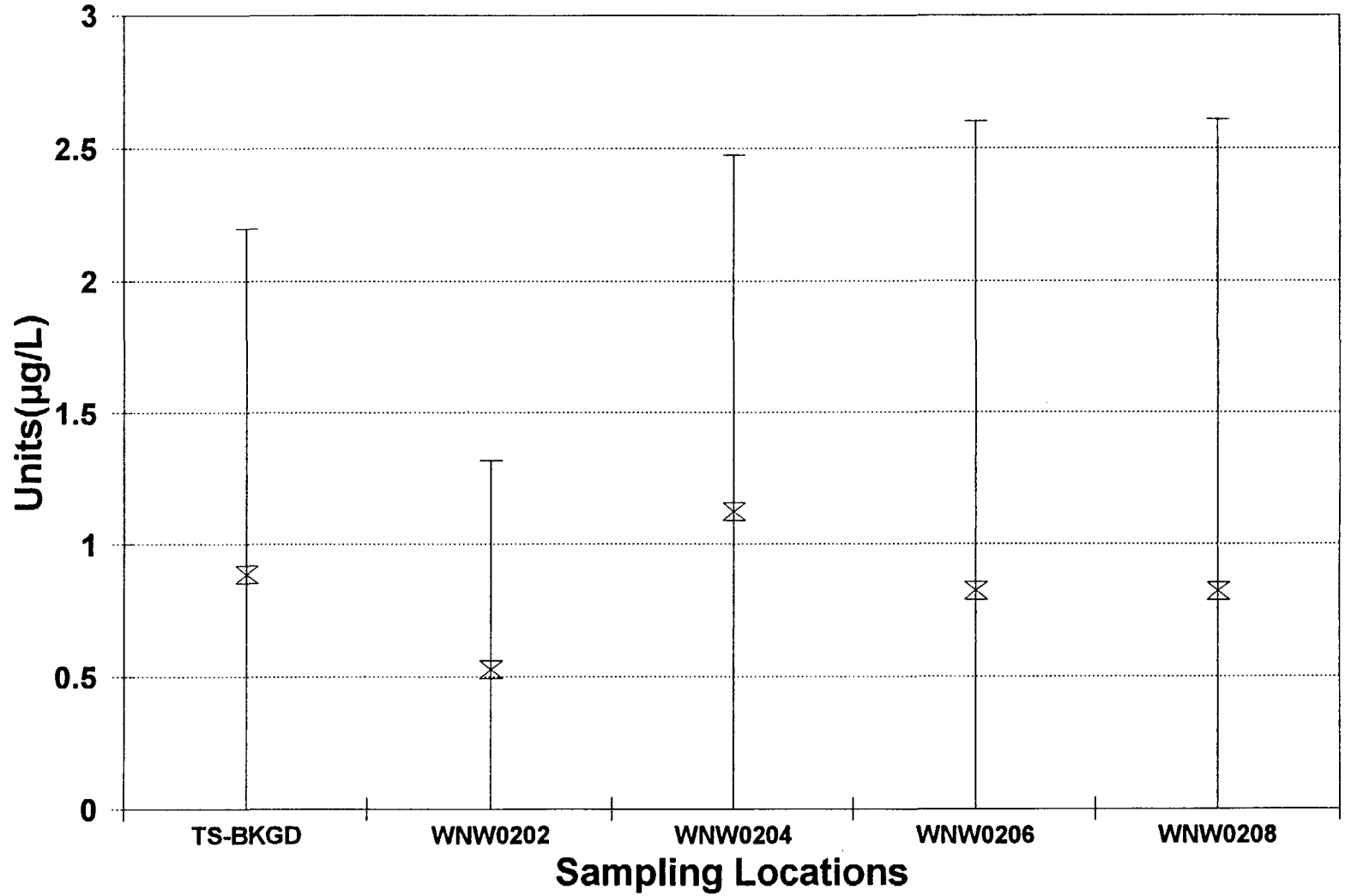
Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404



Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404



Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404



Note: TS-BKGD is combination of Wells - WNW0302, WNW0402, and WNW0404

Appendix F

Soil Program Analytical Data

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MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-11	ag_t	11/18/93	ND	364.00	µg/kg	RFI-00956		(02-04')
BH-11	ag_t	11/18/93	ND	350.00	µg/kg	RFI-00957		(12-14')
BH-11	al_t	11/18/93		11800000.00	µg/kg	RFI-00956		(02-04')
BH-11	al_t	11/18/93		8340000.00	µg/kg	RFI-00957		(12-14')
BH-11	as_t	11/18/93		17500.00	µg/kg	RFI-00956		(02-04')
BH-11	as_t	11/18/93		23400.00	µg/kg	RFI-00957		(12-14')
BH-11	ba_t	11/18/93		57500.00	µg/kg	RFI-00956		(02-04')
BH-11	ba_t	11/18/93		69300.00	µg/kg	RFI-00957		(12-14')
BH-11	be_t	11/18/93		433.00	µg/kg	RFI-00956		(02-04')
BH-11	be_t	11/18/93		415.00	µg/kg	RFI-00957		(12-14')
BH-11	ca_t	11/18/93		2360000.00	µg/kg	RFI-00956		(02-04')
BH-11	ca_t	11/18/93		1490000.00	µg/kg	RFI-00957		(12-14')
BH-11	cd_t	11/18/93	ND	242.00	µg/kg	RFI-00956		(02-04')
BH-11	cd_t	11/18/93	ND	233.00	µg/kg	RFI-00957		(12-14')
BH-11	co_t	11/18/93		8200.00	µg/kg	RFI-00956		(02-04')
BH-11	co_t	11/18/93		7680.00	µg/kg	RFI-00957		(12-14')
BH-11	cr_t	11/18/93		12400.00	µg/kg	RFI-00956		(02-04')
BH-11	cr_t	11/18/93		10500.00	µg/kg	RFI-00957		(12-14')
BH-11	cu_t	11/18/93		17000.00	µg/kg	RFI-00956		(02-04')
BH-11	cu_t	11/18/93		21400.00	µg/kg	RFI-00957		(12-14')
BH-11	fe_t	11/18/93		20200000.00	µg/kg	RFI-00956	J	(02-04')
BH-11	fe_t	11/18/93		21500000.00	µg/kg	RFI-00957	J	(12-14')
BH-11	hg_t	11/18/93		122.00	µg/kg	RFI-00956		(02-04')
BH-11	hg_t	11/18/93		30.30	µg/kg	RFI-00957		(12-14')
BH-11	k_t	11/18/93		960000.00	µg/kg	RFI-00956		(02-04')
BH-11	k_t	11/18/93		1020000.00	µg/kg	RFI-00957		(12-14')
BH-11	mg_t	11/18/93		3200000.00	µg/kg	RFI-00956		(02-04')
BH-11	mg_t	11/18/93		2930000.00	µg/kg	RFI-00957		(12-14')
BH-11	mn_t	11/18/93		288000.00	µg/kg	RFI-00956		(02-04')
BH-11	mn_t	11/18/93		720000.00	µg/kg	RFI-00957		(12-14')
BH-11	na_t	11/18/93		93100.00	µg/kg	RFI-00956		(02-04')
BH-11	na_t	11/18/93		151000.00	µg/kg	RFI-00957		(12-14')
BH-11	ni_t	11/18/93		17600.00	µg/kg	RFI-00956		(02-04')
BH-11	ni_t	11/18/93		17500.00	µg/kg	RFI-00957		(12-14')
BH-11	pb_t	11/18/93		25700.00	µg/kg	RFI-00956		(02-04')
BH-11	pb_t	11/18/93		19800.00	µg/kg	RFI-00957		(12-14')
BH-11	sb_t	11/18/93		2620.00	µg/kg	RFI-00956	J	(02-04')
BH-11	sb_t	11/18/93		4550.00	µg/kg	RFI-00957	J	(12-14')
BH-11	se_t	11/18/93	ND	239.00	µg/kg	RFI-00956	UJ	(02-04')
BH-11	se_t	11/18/93	ND	229.00	µg/kg	RFI-00957	UJ	(12-14')
BH-11	tl_t	11/18/93	ND	598.00	µg/kg	RFI-00956		(02-04')
BH-11	tl_t	11/18/93	ND	572.00	µg/kg	RFI-00957		(12-14')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-11	v_t	11/18/93		15200.00	µg/kg	RFI-00956		(02-04')
BH-11	v_t	11/18/93		10300.00	µg/kg	RFI-00957		(12-14')
BH-11	zn_t	11/18/93		77700.00	µg/kg	RFI-00956	J	(02-04')
BH-11	zn_t	11/18/93		74200.00	µg/kg	RFI-00957	J	(12-14')
BH-12	ag_t	11/04/93	ND	345.00	µg/kg	RFI-00933		(02-04')
BH-12	ag_t	11/04/93	ND	347.00	µg/kg	RFI-00934		(06-08')
BH-12	al_t	11/04/93		11200000.00	µg/kg	RFI-00933		(02-04')
BH-12	al_t	11/04/93		8850000.00	µg/kg	RFI-00934		(06-08')
BH-12	as_t	11/04/93		20300.00	µg/kg	RFI-00933		(02-04')
BH-12	as_t	11/04/93		18200.00	µg/kg	RFI-00934		(06-08')
BH-12	ba_t	11/04/93		72700.00	µg/kg	RFI-00933		(02-04')
BH-12	ba_t	11/04/93		64800.00	µg/kg	RFI-00934		(06-08')
BH-12	be_t	11/04/93		445.00	µg/kg	RFI-00933		(02-04')
BH-12	be_t	11/04/93		378.00	µg/kg	RFI-00934		(06-08')
BH-12	ca_t	11/04/93		2460000.00	µg/kg	RFI-00933		(02-04')
BH-12	ca_t	11/04/93		1690000.00	µg/kg	RFI-00934		(06-08')
BH-12	cd_t	11/04/93	ND	230.00	µg/kg	RFI-00933		(02-04')
BH-12	cd_t	11/04/93	ND	231.00	µg/kg	RFI-00934		(06-08')
BH-12	co_t	11/04/93		7770.00	µg/kg	RFI-00933		(02-04')
BH-12	co_t	11/04/93		6720.00	µg/kg	RFI-00934		(06-08')
BH-12	cr_t	11/04/93		12900.00	µg/kg	RFI-00933		(02-04')
BH-12	cr_t	11/04/93		10300.00	µg/kg	RFI-00934		(06-08')
BH-12	cu_t	11/04/93		18900.00	µg/kg	RFI-00933		(02-04')
BH-12	cu_t	11/04/93		15700.00	µg/kg	RFI-00934		(06-08')
BH-12	fe_t	11/04/93		19000000.00	µg/kg	RFI-00933		(02-04')
BH-12	fe_t	11/04/93		20200000.00	µg/kg	RFI-00934		(06-08')
BH-12	hg_t	11/04/93		42.30	µg/kg	RFI-00933		(02-04')
BH-12	hg_t	11/04/93		18.50	µg/kg	RFI-00934		(06-08')
BH-12	k_t	11/04/93		1060000.00	µg/kg	RFI-00933		(02-04')
BH-12	k_t	11/04/93		558000.00	µg/kg	RFI-00934		(06-08')
BH-12	mg_t	11/04/93		3110000.00	µg/kg	RFI-00933		(02-04')
BH-12	mg_t	11/04/93		2870000.00	µg/kg	RFI-00934		(06-08')
BH-12	mn_t	11/04/93		324000.00	µg/kg	RFI-00933		(02-04')
BH-12	mn_t	11/04/93		369000.00	µg/kg	RFI-00934		(06-08')
BH-12	na_t	11/04/93		69700.00	µg/kg	RFI-00933		(02-04')
BH-12	na_t	11/04/93		114000.00	µg/kg	RFI-00934		(06-08')
BH-12	ni_t	11/04/93		17500.00	µg/kg	RFI-00933		(02-04')
BH-12	ni_t	11/04/93		16200.00	µg/kg	RFI-00934		(06-08')
BH-12	pb_t	11/04/93		27200.00	µg/kg	RFI-00933		(02-04')
BH-12	pb_t	11/04/93		13300.00	µg/kg	RFI-00934		(06-08')
BH-12	sb_t	11/04/93		3920.00	µg/kg	RFI-00933	J	(02-04')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-12	sb_t	11/04/93		3750.00	µg/kg	RFI-00934	J	(06-08')
BH-12	se_t	11/04/93	ND	117.00	µg/kg	RFI-00933		(02-04')
BH-12	se_t	11/04/93	ND	107.00	µg/kg	RFI-00934		(06-08')
BH-12	tl_t	11/04/93	ND	587.00	µg/kg	RFI-00933		(02-04')
BH-12	tl_t	11/04/93	ND	536.00	µg/kg	RFI-00934		(06-08')
BH-12	v_t	11/04/93		15900.00	µg/kg	RFI-00933		(02-04')
BH-12	v_t	11/04/93		10500.00	µg/kg	RFI-00934		(06-08')
BH-12	zn_t	11/04/93		81700.00	µg/kg	RFI-00933		(02-04')
BH-12	zn_t	11/04/93		59200.00	µg/kg	RFI-00934		(06-08')
BH-15	ag_t	10/21/93	ND	355.00	µg/kg	RFI-00661		(02-04')
BH-15	ag_t	10/21/93	ND	348.00	µg/kg	RFI-00662		(12-14')
BH-15	al_t	10/21/93		10800000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	al_t	10/21/93		13600000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	as_t	10/21/93		5930.00	µg/kg	RFI-00661	J	(02-04')
BH-15	as_t	10/21/93		6790.00	µg/kg	RFI-00662	J	(12-14')
BH-15	ba_t	10/21/93		51600.00	µg/kg	RFI-00661		(02-04')
BH-15	ba_t	10/21/93		88500.00	µg/kg	RFI-00662		(12-14')
BH-15	be_t	10/21/93		483.00	µg/kg	RFI-00661		(02-04')
BH-15	be_t	10/21/93		641.00	µg/kg	RFI-00662		(12-14')
BH-15	ca_t	10/21/93		986000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	ca_t	10/21/93		31100000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	cd_t	10/21/93		403.00	µg/kg	RFI-00661		(02-04')
BH-15	cd_t	10/21/93	ND	232.00	µg/kg	RFI-00662		(12-14')
BH-15	co_t	10/21/93		7800.00	µg/kg	RFI-00661		(02-04')
BH-15	co_t	10/21/93		11400.00	µg/kg	RFI-00662		(12-14')
BH-15	cr_t	10/21/93		13500.00	µg/kg	RFI-00661		(02-04')
BH-15	cr_t	10/21/93		18400.00	µg/kg	RFI-00662		(12-14')
BH-15	cu_t	10/21/93		30800.00	µg/kg	RFI-00661	J	(02-04')
BH-15	cu_t	10/21/93		21900.00	µg/kg	RFI-00662	J	(12-14')
BH-15	fe_t	10/21/93		24000000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	fe_t	10/21/93		26900000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	hg_t	10/21/93		36.80	µg/kg	RFI-00661		(02-04')
BH-15	hg_t	10/21/93		29.10	µg/kg	RFI-00662		(12-14')
BH-15	k_t	10/21/93		1240000.00	µg/kg	RFI-00661		(02-04')
BH-15	k_t	10/21/93		2610000.00	µg/kg	RFI-00662		(12-14')
BH-15	mg_t	10/21/93		3330000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	mg_t	10/21/93		10600000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	mn_t	10/21/93		461000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	mn_t	10/21/93		362000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	na_t	10/21/93		549000.00	µg/kg	RFI-00661	J	(02-04')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-15	na_t	10/21/93		266000.00	µg/kg	RFI-00662	J	(12-14')
BH-15	ni_t	10/21/93		22000.00	µg/kg	RFI-00661		(02-04')
BH-15	ni_t	10/21/93		30100.00	µg/kg	RFI-00662		(12-14')
BH-15	pb_t	10/21/93		19200.00	µg/kg	RFI-00661		(02-04')
BH-15	pb_t	10/21/93		15200.00	µg/kg	RFI-00662		(12-14')
BH-15	sb_t	10/21/93	ND	1420.00	µg/kg	RFI-00661	UJ	(02-04')
BH-15	sb_t	10/21/93		1660.00	µg/kg	RFI-00662	J	(12-14')
BH-15	se_t	10/21/93	ND	118.00	µg/kg	RFI-00661		(02-04')
BH-15	se_t	10/21/93	ND	116.00	µg/kg	RFI-00662		(12-14')
BH-15	tl_t	10/21/93	ND	237.00	µg/kg	RFI-00661	UJ	(02-04')
BH-15	tl_t	10/21/93	ND	579.00	µg/kg	RFI-00662	UJ	(12-14')
BH-15	v_t	10/21/93		12900.00	µg/kg	RFI-00661		(02-04')
BH-15	v_t	10/21/93		19700.00	µg/kg	RFI-00662		(12-14')
BH-15	zn_t	10/21/93		64000.00	µg/kg	RFI-00661	J	(02-04')
BH-15	zn_t	10/21/93		71900.00	µg/kg	RFI-00662	J	(12-14')
BH-16	ag_t	10/21/93	ND	393.00	µg/kg	RFI-00663		(00-02')
BH-16	ag_t	10/21/93	ND	341.00	µg/kg	RFI-00664		(04-06')
BH-16	al_t	10/21/93		14000000.00	µg/kg	RFI-00663	J	(00-02')
BH-16	al_t	10/21/93		10800000.00	µg/kg	RFI-00664	J	(04-06')
BH-16	as_t	10/21/93		4510.00	µg/kg	RFI-00663	J	(00-02')
BH-16	as_t	10/21/93		9140.00	µg/kg	RFI-00664	J	(04-06')
BH-16	ba_t	10/21/93		61300.00	µg/kg	RFI-00663		(00-02')
BH-16	ba_t	10/21/93		93700.00	µg/kg	RFI-00664		(04-06')
BH-16	be_t	10/21/93		479.00	µg/kg	RFI-00663		(00-02')
BH-16	be_t	10/21/93		489.00	µg/kg	RFI-00664		(04-06')
BH-16	ca_t	10/21/93		1060000.00	µg/kg	RFI-00663	J	(00-02')
BH-16	ca_t	10/21/93		1470000.00	µg/kg	RFI-00664	J	(04-06')
BH-16	cd_t	10/21/93	ND	262.00	µg/kg	RFI-00663		(00-02')
BH-16	cd_t	10/21/93	ND	227.00	µg/kg	RFI-00664		(04-06')
BH-16	co_t	10/21/93		7590.00	µg/kg	RFI-00663		(00-02')
BH-16	co_t	10/21/93		8630.00	µg/kg	RFI-00664		(04-06')
BH-16	cr_t	10/21/93		14300.00	µg/kg	RFI-00663		(00-02')
BH-16	cr_t	10/21/93		13100.00	µg/kg	RFI-00664		(04-06')
BH-16	cu_t	10/21/93		14600.00	µg/kg	RFI-00663		(00-02')
BH-16	cu_t	10/21/93		25700.00	µg/kg	RFI-00664		(04-06')
BH-16	fe_t	10/21/93		25200000.00	µg/kg	RFI-00663	J	(00-02')
BH-16	fe_t	10/21/93		25800000.00	µg/kg	RFI-00664	J	(04-06')
BH-16	hg_t	10/21/93		49.40	µg/kg	RFI-00663		(00-02')
BH-16	hg_t	10/21/93		26.80	µg/kg	RFI-00664		(04-06')
BH-16	k_t	10/21/93		1160000.00	µg/kg	RFI-00663		(00-02')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-16	k_t	10/21/93		1210000.00	µg/kg	RFI-00664		(04-06')
BH-16	mg_t	10/21/93		2670000.00	µg/kg	RFI-00663	J	(00-02')
BH-16	mg_t	10/21/93		3180000.00	µg/kg	RFI-00664	J	(04-06')
BH-16	mn_t	10/21/93		373000.00	µg/kg	RFI-00663	J	(00-02')
BH-16	mn_t	10/21/93		662000.00	µg/kg	RFI-00664	J	(04-06')
BH-16	na_t	10/21/93		74600.00	µg/kg	RFI-00663		(00-02')
BH-16	na_t	10/21/93		63300.00	µg/kg	RFI-00664		(04-06')
BH-16	ni_t	10/21/93		16500.00	µg/kg	RFI-00663		(00-02')
BH-16	ni_t	10/21/93		19500.00	µg/kg	RFI-00664		(04-06')
BH-16	pb_t	10/21/93		18000.00	µg/kg	RFI-00663		(00-02')
BH-16	pb_t	10/21/93		19600.00	µg/kg	RFI-00664		(04-06')
BH-16	sb_t	10/21/93		2150.00	µg/kg	RFI-00663	J	(00-02')
BH-16	sb_t	10/21/93		1560.00	µg/kg	RFI-00664	J	(04-06')
BH-16	se_t	10/21/93	ND	126.00	µg/kg	RFI-00663		(00-02')
BH-16	se_t	10/21/93	ND	111.00	µg/kg	RFI-00664		(04-06')
BH-16	tl_t	10/21/93	ND	629.00	µg/kg	RFI-00663	UJ	(00-02')
BH-16	tl_t	10/21/93	ND	557.00	µg/kg	RFI-00664	UJ	(04-06')
BH-16	v_t	10/21/93		21400.00	µg/kg	RFI-00663		(00-02')
BH-16	v_t	10/21/93		13400.00	µg/kg	RFI-00664		(04-06')
BH-16	zn_t	10/21/93		67400.00	µg/kg	RFI-00663	J	(00-02')
BH-16	zn_t	10/21/93		71400.00	µg/kg	RFI-00664	J	(04-06')
Background								
BH-38	ag_t	10/26/93	ND	342.00	µg/kg	RFI-00668		(00-02')
BH-38	ag_t	10/26/93	ND	339.00	µg/kg	RFI-00669		(12-14')
BH-38	ag_t	10/26/93	ND	370.00	µg/kg	RFI-00670		(26-28')
BH-38	al_t	10/26/93		13900000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	al_t	10/26/93		12500000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	al_t	10/26/93		14000000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	as_t	10/26/93		5350.00	µg/kg	RFI-00668	J	(00-02')
BH-38	as_t	10/26/93		6060.00	µg/kg	RFI-00669	J	(12-14')
BH-38	as_t	10/26/93		5090.00	µg/kg	RFI-00670	J	(26-28')
BH-38	ba_t	10/26/93		105000.00	µg/kg	RFI-00668		(00-02')
BH-38	ba_t	10/26/93		139000.00	µg/kg	RFI-00669		(12-14')
BH-38	ba_t	10/26/93		151000.00	µg/kg	RFI-00670		(26-28')
BH-38	be_t	10/26/93		657.00	µg/kg	RFI-00668		(00-02')
BH-38	be_t	10/26/93		602.00	µg/kg	RFI-00669		(12-14')
BH-38	be_t	10/26/93		691.00	µg/kg	RFI-00670		(26-28')
BH-38	ca_t	10/26/93		29400000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	ca_t	10/26/93		17400000.00	µg/kg	RFI-00669	J	(12-14')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-38	ca_t	10/26/93		29400000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	cd_t	10/26/93	ND	228.00	µg/kg	RFI-00668		(00-02')
BH-38	cd_t	10/26/93	ND	226.00	µg/kg	RFI-00669		(12-14')
BH-38	cd_t	10/26/93	ND	247.00	µg/kg	RFI-00670		(26-28')
BH-38	co_t	10/26/93		11500.00	µg/kg	RFI-00668		(00-02')
BH-38	co_t	10/26/93		11200.00	µg/kg	RFI-00669		(12-14')
BH-38	co_t	10/26/93		13200.00	µg/kg	RFI-00670		(26-28')
BH-38	cr_t	10/26/93		17900.00	µg/kg	RFI-00668	J	(00-02')
BH-38	cr_t	10/26/93		16000.00	µg/kg	RFI-00669		(12-14')
BH-38	cr_t	10/26/93		19700.00	µg/kg	RFI-00670	J	(26-28')
BH-38	cu_t	10/26/93		20500.00	µg/kg	RFI-00668		(00-02')
BH-38	cu_t	10/26/93		24800.00	µg/kg	RFI-00669		(12-14')
BH-38	cu_t	10/26/93		23500.00	µg/kg	RFI-00670		(26-28')
BH-38	fe_t	10/26/93		25200000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	fe_t	10/26/93		26800000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	fe_t	10/26/93		28000000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	hg_t	10/26/93		18.20	µg/kg	RFI-00668		(00-02')
BH-38	hg_t	10/26/93		19.70	µg/kg	RFI-00669		(12-14')
BH-38	hg_t	10/26/93		21.00	µg/kg	RFI-00670		(26-28')
BH-38	k_t	10/26/93		2980000.00	µg/kg	RFI-00668		(00-02')
BH-38	k_t	10/26/93		1700000.00	µg/kg	RFI-00669		(12-14')
BH-38	k_t	10/26/93		2580000.00	µg/kg	RFI-00670		(26-28')
BH-38	mg_t	10/26/93		10800000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	mg_t	10/26/93		6050000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	mg_t	10/26/93		10800000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	mn_t	10/26/93		476000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	mn_t	10/26/93		486000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	mn_t	10/26/93		433000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	na_t	10/26/93		136000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	na_t	10/26/93		76200.00	µg/kg	RFI-00669		(12-14')
BH-38	na_t	10/26/93		127000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	ni_t	10/26/93		27300.00	µg/kg	RFI-00668		(00-02')
BH-38	ni_t	10/26/93		27000.00	µg/kg	RFI-00669		(12-14')
BH-38	ni_t	10/26/93		32600.00	µg/kg	RFI-00670		(26-28')
BH-38	pb_t	10/26/93		14200.00	µg/kg	RFI-00668		(00-02')
BH-38	pb_t	10/26/93		14000.00	µg/kg	RFI-00669		(12-14')
BH-38	pb_t	10/26/93		16700.00	µg/kg	RFI-00670		(26-28')
BH-38	sb_t	10/26/93		2540.00	µg/kg	RFI-00668	J	(00-02')
BH-38	sb_t	10/26/93		2040.00	µg/kg	RFI-00669	J	(12-14')
BH-38	sb_t	10/26/93		2280.00	µg/kg	RFI-00670	J	(26-28')
BH-38	se_t	10/26/93	ND	114.00	µg/kg	RFI-00668	UJ	(00-02')

MSU Soils Borehole Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-38	se_t	10/26/93	ND	107.00	µg/kg	RFI-00669	UJ	(12-14')
BH-38	se_t	10/26/93	ND	125.00	µg/kg	RFI-00670	UJ	(26-28')
BH-38	tl_t	10/26/93	ND	114.00	µg/kg	RFI-00668	UJ	(00-02')
BH-38	tl_t	10/26/93	ND	107.00	µg/kg	RFI-00669	UJ	(12-14')
BH-38	tl_t	10/26/93	ND	125.00	µg/kg	RFI-00670	UJ	(26-28')
BH-38	v_t	10/26/93		21300.00	µg/kg	RFI-00668	J	(00-02')
BH-38	v_t	10/26/93		16900.00	µg/kg	RFI-00669	J	(12-14')
BH-38	v_t	10/26/93		20900.00	µg/kg	RFI-00670	J	(26-28')
BH-38	zn_t	10/26/93		60000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	zn_t	10/26/93		80000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	zn_t	10/26/93		65800.00	µg/kg	RFI-00670	J	(26-28')

MSU Soils Borehole Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-11	n_dodcan	11/18/93	ND	380.00	µg/kg	RFI-00458		(02-04')
BH-11	n_dodcan	11/18/93	ND	410.00	µg/kg	RFI-00753		(12-14')
BH-11	o_cresol	11/18/93	ND	410.00	µg/kg	RFI-00753		(12-14')
BH-11	trbutphs	11/18/93	ND	380.00	µg/kg	RFI-00458		(02-04')
BH-11	trbutphs	11/18/93	ND	410.00	µg/kg	RFI-00753		(12-14')
BH-12	n_dodcan	11/04/93	ND	370.00	µg/kg	RFI-00456	UJ	(06-08')
BH-12	trbutphs	11/04/93	ND	370.00	µg/kg	RFI-00456	UJ	(06-08')
Background								
BH-39	acnphthe	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	acnphthe	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	acnphthy	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	acnphthy	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	anthracn	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	anthracn	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bis2ceth	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bis2ceth	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bis2cexy	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bis2cexy	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bis2clis	10/14/93	ND	363.60	µg/kg	RFI-00592	UJ	(06-10')
BH-39	bis2clis	10/14/93	ND	361.50	µg/kg	RFI-00593	UJ	(18-20')
BH-39	bis2ehex	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bis2ehex	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bnz_a_an	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bnz_a_an	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bnz_a_py	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bnz_a_py	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bnz_b_fl	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bnz_b_fl	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bnz_k_fl	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bnz_k_fl	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	bnzghipr	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	bnzghipr	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	brppeth4	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	brppeth4	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	butbnzph	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	butbnzph	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	carbazol	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	carbazol	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')

MSU Soils Borehole Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-39	chppeth4	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	chppeth4	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	chrysene	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	chrysene	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	clnapht2	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	clnapht2	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	clphen_2	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	clphen_2	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dbahanth	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dbahanth	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dcb_33	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dcb_33	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dibnzfur	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dibnzfur	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	diclph24	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	diclph24	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	diethyph	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	diethyph	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dimthp24	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dimthp24	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dimthyph	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dimthyph	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dinbutph	10/14/93		40.50	µg/kg	RFI-00592	UJ	(06-10')
BH-39	dinbutph	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dinoctph	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dinoctph	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dintrp24	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	dintrp24	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	dintrt24	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dintrt24	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dintrt26	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	dintrt26	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	dntrcr46	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	dntrcr46	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	docosane	10/14/93		300.00	µg/kg	RFI-00448	J	(06-10')
BH-39	flranthn	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	flranthn	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	fluorene	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	fluorene	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	hexclbnz	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	hexclbnz	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')

MSU Soils Borehole Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-39	hexclbut	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	hexclbut	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	hexcleth	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	hexcleth	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	hexclpen	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	hexclpen	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	indnpyre	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	indnpyre	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	isophron	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	isophron	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	m_dclbnz	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	m_dclbnz	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	m_ntranl	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	m_ntranl	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	mthynph2	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	mthynph2	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	n_dodcan	10/14/93	ND	350.00	µg/kg	RFI-00448	UJ	(06-10')
BH-39	n_dodcan	10/14/93	ND	360.00	µg/kg	RFI-00450	UJ	(18-20')
BH-39	naphthal	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	naphthal	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	nntrphny	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	nntrphny	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	nntrprpy	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	nntrprpy	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	ntrobenz	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	ntrobenz	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	o_cresol	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	o_cresol	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	o_dclbnz	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	o_dclbnz	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	o_ntranl	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	o_ntranl	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	o_ntrphn	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	o_ntrphn	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	p_cresol	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	p_cresol	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	p_dclbnz	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	p_dclbnz	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	p_ntranl	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	p_ntranl	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	p_ntrphn	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')

MSU Soils Borehole Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-39	p_ntrphn	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	pclranil	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	pclranil	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	pclrmcrs	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	pclrmcrs	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	phenol	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	phenol	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	phnanthr	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	phnanthr	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	pntclphn	10/14/93	ND	890.00	µg/kg	RFI-00592		(06-10')
BH-39	pntclphn	10/14/93	ND	880.00	µg/kg	RFI-00593		(18-20')
BH-39	pntdecan	10/14/93		500.00	µg/kg	RFI-00448	J	(06-10')
BH-39	pntdecan	10/14/93		400.00	µg/kg	RFI-00592	J	(06-10')
BH-39	pntdecan	10/14/93		500.00	µg/kg	RFI-00450	J	(18-20')
BH-39	pntdecan	10/14/93		700.00	µg/kg	RFI-00593	J	(18-20')
BH-39	pyrene	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	pyrene	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	tcb_124	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	tcb_124	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	tclph245	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	tclph245	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	tclph246	10/14/93	ND	363.60	µg/kg	RFI-00592		(06-10')
BH-39	tclph246	10/14/93	ND	361.50	µg/kg	RFI-00593		(18-20')
BH-39	tetrdecn	10/14/93		300.00	µg/kg	RFI-00450	J	(18-20')
BH-39	tetrdecn	10/14/93		400.00	µg/kg	RFI-00593	J	(18-20')
BH-39	trbutphs	10/14/93	ND	350.00	µg/kg	RFI-00448	UJ	(06-10')
BH-39	trbutphs	10/14/93	ND	360.00	µg/kg	RFI-00450	UJ	(18-20')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-11	acetone	11/18/93	ND	11.00	µg/kg	RFI-00921	UJ	(02-04')
BH-11	acetone	11/18/93	ND	12.00	µg/kg	RFI-00922	UJ	(12-14')
BH-11	benzene	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	benzene	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	br_meth	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')
BH-11	br_meth	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	brdcmeth	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	brdcmeth	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	brform	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	brform	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	c_13_dcp	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	c_13_dcp	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	ccl4	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	ccl4	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	cl_benz	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	cl_benz	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	cl_eth	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')
BH-11	cl_eth	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	cl_form	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	cl_form	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	cl_meth	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')
BH-11	cl_meth	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	cs2	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	cs2	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dbc_meth	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dbc_meth	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dca_11	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dca_11	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dca_12	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dca_12	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dce_11	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dce_11	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dce_12_t	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dce_12_t	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	dcp_12	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	dcp_12	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	eth_benz	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	eth_benz	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	hexnone2	11/18/93	ND	11.00	µg/kg	RFI-00921		(02-04')
BH-11	hexnone2	11/18/93	ND	12.00	µg/kg	RFI-00922		(12-14')
BH-11	mek	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-11	mek	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	mene_cl	11/18/93		15.30	µg/kg	RFI-00921	U	(02-04')
BH-11	mene_cl	11/18/93		18.50	µg/kg	RFI-00922	U	(12-14')
BH-11	mibk	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')
BH-11	mibk	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	styrene	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	styrene	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	t_13_dcp	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	t_13_dcp	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	tca_111	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	tca_111	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	tca_112	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	tca_112	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	tca_1122	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	tca_1122	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	tctf_eth	11/18/93		10.00	µg/kg	RFI-00921	R	(02-04')
BH-11	tctf_eth	11/18/93		20.00	µg/kg	RFI-00922	R	(12-14')
BH-11	tetcleth	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	tetcleth	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	toluene	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	toluene	11/18/93		800.00	µg/kg	RFI-00458	R	(02-04')
BH-11	toluene	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	toluene	11/18/93		1000.00	µg/kg	RFI-00753	R	(12-14')
BH-11	tricleth	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	tricleth	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-11	vnyl_cl	11/18/93	ND	11.40	µg/kg	RFI-00921		(02-04')
BH-11	vnyl_cl	11/18/93	ND	11.80	µg/kg	RFI-00922		(12-14')
BH-11	xylene	11/18/93	ND	5.70	µg/kg	RFI-00921		(02-04')
BH-11	xylene	11/18/93	ND	5.90	µg/kg	RFI-00922		(12-14')
BH-12	acetone	11/04/93	ND	11.00	µg/kg	RFI-00771		(06-08')
BH-12	benzene	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	br_meth	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	brdcmeth	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	brform	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	c_13_dcp	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	ccl4	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	cl_benz	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	cl_eth	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	cl_form	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	cl_meth	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	cs2	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-12	dbc_meth	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	dca_11	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	dca_12	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	dce_11	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	dce_12_t	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	dcp_12	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	eth_benz	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	hexnone2	11/04/93	ND	11.00	µg/kg	RFI-00771		(06-08')
BH-12	mek	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	mene_cl	11/04/93		14.00	µg/kg	RFI-00771	UJ	(06-08')
BH-12	mibk	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	styrene	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	t_13_dcp	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	tca_111	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	tca_112	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	tca_1122	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	tetcleth	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	toluene	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	toluene	11/04/93		800.00	µg/kg	RFI-00456	R	(06-08')
BH-12	tricleth	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-12	vnyl_cl	11/04/93	ND	11.20	µg/kg	RFI-00771		(06-08')
BH-12	xylene	11/04/93	ND	5.60	µg/kg	RFI-00771		(06-08')
BH-15R	acetone	12/09/93	ND	12.00	µg/kg	RFI-00238		(11-13')
BH-15R	benzene	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	br_meth	12/09/93	ND	11.60	µg/kg	RFI-00238		(11-13')
BH-15R	brdcmeth	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	brform	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	c_13_dcp	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	ccl4	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	cl_benz	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	cl_eth	12/09/93	ND	11.60	µg/kg	RFI-00238	UJ	(11-13')
BH-15R	cl_form	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	cl_meth	12/09/93	ND	11.60	µg/kg	RFI-00238		(11-13')
BH-15R	cs2	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dbc_meth	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dca_11	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dca_12	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dce_11	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dce_12_t	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	dcp_12	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-15R	eth_benz	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	hexnone2	12/09/93	ND	12.00	µg/kg	RFI-00238		(11-13')
BH-15R	mek	12/09/93	ND	11.60	µg/kg	RFI-00238		(11-13')
BH-15R	mene_cl	12/09/93		11.60	µg/kg	RFI-00238	U	(11-13')
BH-15R	mibk	12/09/93	ND	11.60	µg/kg	RFI-00238		(11-13')
BH-15R	styrene	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	t_13_dcp	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	tca_111	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	tca_112	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	tca_1122	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	tetcleth	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	toluene	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	tricleth	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-15R	vnyl_cl	12/09/93	ND	11.60	µg/kg	RFI-00238		(11-13')
BH-15R	xylene	12/09/93	ND	5.80	µg/kg	RFI-00238		(11-13')
BH-16R	acetone	12/08/93		20.00	µg/kg	RFI-00236	UJ	(04-06')
BH-16R	benzene	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	br_meth	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	brdcmeth	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	brform	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	c_13_dcp	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	ccl4	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	cl_benz	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	cl_eth	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	cl_form	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	cl_meth	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	cs2	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dbc_meth	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dca_11	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dca_12	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dce_11	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dce_12_t	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	dcp_12	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	eth_benz	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	hexnone2	12/08/93	ND	12.00	µg/kg	RFI-00236		(04-06')
BH-16R	mek	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	mene_cl	12/08/93		15.30	µg/kg	RFI-00236	U	(04-06')
BH-16R	mibk	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	styrene	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	t_13_dcp	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-16R	tca_111	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	tca_112	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	tca_1122	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	tetcleth	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	toluene	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	tricleth	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
BH-16R	vnyl_cl	12/08/93	ND	11.50	µg/kg	RFI-00236		(04-06')
BH-16R	xylene	12/08/93	ND	5.80	µg/kg	RFI-00236		(04-06')
Background								
BH-39	acetone	10/14/93		21.00	µg/kg	RFI-00584	J	(06-08')
BH-39	acetone	10/14/93		89.00	µg/kg	RFI-00585	J	(18-20')
BH-39	benzene	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	benzene	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	br_meth	10/14/93	ND	11.00	µg/kg	RFI-00584	UJ	(06-08')
BH-39	br_meth	10/14/93	ND	11.00	µg/kg	RFI-00585	UJ	(18-20')
BH-39	brdcmeth	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	brdcmeth	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	brform	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	brform	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	c_13_dcp	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	c_13_dcp	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	ccl4	10/14/93		2.50	µg/kg	RFI-00584	J	(06-08')
BH-39	ccl4	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	cl_benz	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	cl_benz	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	cl_eth	10/14/93	ND	11.00	µg/kg	RFI-00584	UJ	(06-08')
BH-39	cl_eth	10/14/93	ND	11.00	µg/kg	RFI-00585	UJ	(18-20')
BH-39	cl_form	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	cl_form	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	cl_meth	10/14/93	ND	11.00	µg/kg	RFI-00584		(06-08')
BH-39	cl_meth	10/14/93	ND	11.00	µg/kg	RFI-00585		(18-20')
BH-39	cs2	10/14/93	ND	5.50	µg/kg	RFI-00584	UJ	(06-08')
BH-39	cs2	10/14/93	ND	5.50	µg/kg	RFI-00585	UJ	(18-20')
BH-39	dbc_meth	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dbc_meth	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	dca_11	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dca_11	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	dca_12	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dca_12	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')

MSU Soils Borehole Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags	Depth
BH-39	dce_11	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dce_11	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	dce_12_t	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dce_12_t	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	dcp_12	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	dcp_12	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	eth_benz	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	eth_benz	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	hexnone2	10/14/93	ND	11.00	µg/kg	RFI-00584		(06-08')
BH-39	hexnone2	10/14/93	ND	11.00	µg/kg	RFI-00585		(18-20')
BH-39	mek	10/14/93	ND	11.00	µg/kg	RFI-00584		(06-08')
BH-39	mek	10/14/93	ND	11.00	µg/kg	RFI-00585		(18-20')
BH-39	mene_cl	10/14/93		25.70	µg/kg	RFI-00584	UJ	(06-08')
BH-39	mene_cl	10/14/93		39.50	µg/kg	RFI-00585	UJ	(18-20')
BH-39	mibk	10/14/93	ND	11.00	µg/kg	RFI-00584		(06-08')
BH-39	mibk	10/14/93	ND	11.00	µg/kg	RFI-00585		(18-20')
BH-39	styrene	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	styrene	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	t_13_dcp	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	t_13_dcp	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	tca_111	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	tca_111	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	tca_112	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	tca_112	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	tca_1122	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	tca_1122	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	tetcleth	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	tetcleth	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	toluene	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	toluene	10/14/93		600.00	µg/kg	RFI-00448	R	(06-10')
BH-39	toluene	10/14/93		800.00	µg/kg	RFI-00592	R	(06-10')
BH-39	toluene	10/14/93		700.00	µg/kg	RFI-00450	R	(18-20')
BH-39	toluene	10/14/93		600.00	µg/kg	RFI-00593	R	(18-20')
BH-39	toluene	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	tricleth	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	tricleth	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')
BH-39	vnyl_cl	10/14/93	ND	11.00	µg/kg	RFI-00584		(06-08')
BH-39	vnyl_cl	10/14/93	ND	11.00	µg/kg	RFI-00585		(18-20')
BH-39	xylene	10/14/93	ND	5.50	µg/kg	RFI-00584		(06-08')
BH-39	xylene	10/14/93	ND	5.50	µg/kg	RFI-00585		(18-20')

MSU Surface Soil Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-09	ag_t	09/14/93		679.00	µg/kg	RFI-00057	
SS-09	al_t	09/14/93		8550000.00	µg/kg	RFI-00057	J
SS-09	as_t	09/14/93		12800.00	µg/kg	RFI-00057	
SS-09	ba_t	09/14/93		51300.00	µg/kg	RFI-00057	
SS-09	be_t	09/14/93		325.00	µg/kg	RFI-00057	
SS-09	ca_t	09/14/93		45600000.00	µg/kg	RFI-00057	J
SS-09	cd_t	09/14/93		785.00	µg/kg	RFI-00057	
SS-09	co_t	09/14/93		5470.00	µg/kg	RFI-00057	
SS-09	cr_t	09/14/93		32000.00	µg/kg	RFI-00057	
SS-09	cu_t	09/14/93		38700.00	µg/kg	RFI-00057	J
SS-09	fe_t	09/14/93		16100000.00	µg/kg	RFI-00057	J
SS-09	hg_t	09/14/93		214.00	µg/kg	RFI-00057	
SS-09	k_t	09/14/93		1250000.00	µg/kg	RFI-00057	
SS-09	mg_t	09/14/93		28800000.00	µg/kg	RFI-00057	J
SS-09	mn_t	09/14/93		626000.00	µg/kg	RFI-00057	J
SS-09	na_t	09/14/93		159000.00	µg/kg	RFI-00057	
SS-09	ni_t	09/14/93		31100.00	µg/kg	RFI-00057	
SS-09	pb_t	09/14/93		46300.00	µg/kg	RFI-00057	
SS-09	sb_t	09/14/93		3270.00	µg/kg	RFI-00057	J
SS-09	se_t	09/14/93	ND	118.00	µg/kg	RFI-00057	UJ
SS-09	tl_t	09/14/93	ND	118.00	µg/kg	RFI-00057	
SS-09	v_t	09/14/93		11000.00	µg/kg	RFI-00057	
SS-09	zn_t	09/14/93		158000.00	µg/kg	RFI-00057	J
Background							
SS-07	ag_t	09/20/93	ND	416.00	µg/kg	RFI-00067	
SS-07	al_t	09/20/93		13700000.00	µg/kg	RFI-00067	
SS-07	as_t	09/20/93		2440.00	µg/kg	RFI-00067	J
SS-07	ba_t	09/20/93		62200.00	µg/kg	RFI-00067	
SS-07	be_t	09/20/93		451.00	µg/kg	RFI-00067	
SS-07	ca_t	09/20/93		1630000.00	µg/kg	RFI-00067	
SS-07	cd_t	09/20/93	ND	277.00	µg/kg	RFI-00067	
SS-07	co_t	09/20/93		14000.00	µg/kg	RFI-00067	
SS-07	cr_t	09/20/93		16800.00	µg/kg	RFI-00067	
SS-07	cu_t	09/20/93		5720.00	µg/kg	RFI-00067	
SS-07	fe_t	09/20/93		21200000.00	µg/kg	RFI-00067	
SS-07	hg_t	09/20/93		65.00	µg/kg	RFI-00067	
SS-07	k_t	09/20/93		1540000.00	µg/kg	RFI-00067	
SS-07	mg_t	09/20/93		2760000.00	µg/kg	RFI-00067	
SS-07	mn_t	09/20/93		615000.00	µg/kg	RFI-00067	J

MSU Surface Soil Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-07	na_t	09/20/93		44400.00	µg/kg	RFI-00067	
SS-07	ni_t	09/20/93		14300.00	µg/kg	RFI-00067	
SS-07	pb_t	09/20/93		27300.00	µg/kg	RFI-00067	
SS-07	sb_t	09/20/93	ND	1660.00	µg/kg	RFI-00067	UJ
SS-07	se_t	09/20/93		139.00	µg/kg	RFI-00067	J
SS-07	tl_t	09/20/93	ND	131.00	µg/kg	RFI-00067	
SS-07	v_t	09/20/93		24500.00	µg/kg	RFI-00067	
SS-07	zn_t	09/20/93		62000.00	µg/kg	RFI-00067	

MSU Surface Soil Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-09	acnphthe	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	acnphthy	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	anthracn	09/14/93		132.50	µg/kg	RFI-00199	J
SS-09	bis2ceth	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	bis2cexy	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	bis2clis	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	bis2ehex	09/14/93		112.90	µg/kg	RFI-00199	J
SS-09	bnz_a_an	09/14/93		692.00	µg/kg	RFI-00199	
SS-09	bnz_a_py	09/14/93		798.70	µg/kg	RFI-00199	
SS-09	bnz_b_fl	09/14/93		1286.00	µg/kg	RFI-00199	
SS-09	bnz_k_fl	09/14/93		395.00	µg/kg	RFI-00199	J
SS-09	bnzghipr	09/14/93		409.00	µg/kg	RFI-00199	J
SS-09	brppeth4	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	butbnzph	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	carbazol	09/14/93		247.00	µg/kg	RFI-00199	J
SS-09	chppeth4	09/14/93	ND	424.00	µg/kg	RFI-00199	UJ
SS-09	chrysene	09/14/93		990.50	µg/kg	RFI-00199	
SS-09	clnapht2	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	clphen_2	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dbahanth	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dcb_33	09/14/93	ND	424.00	µg/kg	RFI-00199	UJ
SS-09	dibnzfur	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	diclph24	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	diethyph	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dimthp24	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dimthyph	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dinbutph	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dinoctph	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dintrp24	09/14/93	ND	1000.00	µg/kg	RFI-00199	UJ
SS-09	dintrt24	09/14/93	ND	424.00	µg/kg	RFI-00199	UJ
SS-09	dintrt26	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	dntrcr46	09/14/93	ND	1000.00	µg/kg	RFI-00199	
SS-09	flranthn	09/14/93		2012.60	µg/kg	RFI-00199	
SS-09	fluorene	09/14/93	ND	424.00	µg/kg	RFI-00199	UJ
SS-09	hexclbnz	09/14/93	ND	424.00	µg/kg	RFI-00199	UJ
SS-09	hexclbut	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	hexcleth	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	hexclpen	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	indnpyre	09/14/93		448.50	µg/kg	RFI-00199	
SS-09	isophron	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	m_dclbnz	09/14/93	ND	424.00	µg/kg	RFI-00199	

MSU Surface Soil Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-09	m_ntranl	09/14/93	ND	1000.00	µg/kg	RFI-00199	
SS-09	mthynph2	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	naphthal	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	nntrphny	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	nntrprpy	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	ntrobenz	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	o_cresol	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	o_dclbnz	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	o_ntranl	09/14/93	ND	1000.00	µg/kg	RFI-00199	
SS-09	o_ntrphn	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	p_cresol	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	p_dclbnz	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	p_ntranl	09/14/93	ND	1000.00	µg/kg	RFI-00199	UJ
SS-09	p_ntrphn	09/14/93	ND	1000.00	µg/kg	RFI-00199	
SS-09	pclranil	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	pclrmcrs	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	phenol	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	phnanthr	09/14/93		1066.40	µg/kg	RFI-00199	
SS-09	pntclphn	09/14/93	ND	1000.00	µg/kg	RFI-00199	
SS-09	pyrene	09/14/93		1768.30	µg/kg	RFI-00199	
SS-09	tcb_124	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	tclph245	09/14/93	ND	424.00	µg/kg	RFI-00199	
SS-09	tclph246	09/14/93	ND	424.00	µg/kg	RFI-00199	
Background							
SS-07R	acnphthe	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	acnphthy	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	anthracn	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bis2ceth	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bis2cexy	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bis2clis	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bis2ehex	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bnz_a_an	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bnz_a_py	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bnz_b_fl	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bnz_k_fl	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	bnzghipr	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	brppeth4	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	butbnzph	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	carbazol	12/13/93	ND	498.90	µg/kg	RFI-00050	UJ

MSU Surface Soil Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-07R	chppeth4	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	chrysene	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	clnapht2	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	clphen_2	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dbahanth	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dcb_33	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dibnzfur	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	diclph24	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	diethyph	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dimthp24	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dimthyph	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dinbutph	12/13/93		317.40	µg/kg	RFI-00050	U
SS-07R	dinoctph	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dintrp24	12/13/93	ND	1260.00	µg/kg	RFI-00050	
SS-07R	dintrt24	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dintrt26	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	dntrcr46	12/13/93	ND	1260.00	µg/kg	RFI-00050	
SS-07R	flranthn	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	fluorene	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	hexclbnz	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	hexclbut	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	hexcleth	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	hexclpen	12/13/93	ND	498.90	µg/kg	RFI-00050	UJ
SS-07R	indnpyre	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	isophron	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	m_dclbnz	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	m_ntranl	12/13/93	ND	1260.00	µg/kg	RFI-00050	
SS-07R	mthynph2	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	naphthal	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	nntrphny	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	nntrprpy	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	ntrobenz	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	o_cresol	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	o_dclbnz	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	o_ntranl	12/13/93	ND	1260.00	µg/kg	RFI-00050	
SS-07R	o_ntrphn	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	p_cresol	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	p_dclbnz	12/13/93	ND	498.90	µg/kg	RFI-00050	
SS-07R	p_ntranl	12/13/93	ND	1260.00	µg/kg	RFI-00050	UJ
SS-07R	p_ntrphn	12/13/93	ND	1260.00	µg/kg	RFI-00050	UJ
SS-07R	pclranil	12/13/93	ND	498.90	µg/kg	RFI-00050	UJ

MSU Surface Soil Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-07R	pclrmcrs	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	phenol	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	phnanthr	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	pntclphn	12/13/93	ND	1260.00	μg/kg	RFI-00050	
SS-07R	pyrene	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	tcb_124	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	tclph245	12/13/93	ND	498.90	μg/kg	RFI-00050	
SS-07R	tclph246	12/13/93	ND	498.90	μg/kg	RFI-00050	

MSU Surface Soil Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
SS-09	toluene	09/14/93		600.00	µg/kg	RFI-00199	R
Background							
SS-07	acetone	09/20/93		29.00	µg/kg	RFI-00183	U
SS-07	benzene	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	br_meth	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	brdcmeth	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	brform	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	c_13_dcp	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	ccl4	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	cl_benz	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	cl_eth	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	cl_form	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	cl_meth	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	cs2	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dbc_meth	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dca_11	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dca_12	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dce_11	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dce_12_t	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	dcp_12	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	eth_benz	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	hexnone2	09/20/93	ND	14.00	µg/kg	RFI-00183	
SS-07	mek	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	mene_cl	09/20/93		33.00	µg/kg	RFI-00183	U
SS-07	mibk	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	styrene	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	t_13_dcp	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	tca_111	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	tca_112	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	tca_1122	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	tctf_eth	09/20/93		20.00	µg/kg	RFI-00183	J
SS-07	tetcleth	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	toluene	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	tricleth	09/20/93	ND	6.90	µg/kg	RFI-00183	
SS-07	vnyl_cl	09/20/93	ND	13.80	µg/kg	RFI-00183	
SS-07	xylene	09/20/93	ND	6.90	µg/kg	RFI-00183	

MSU Stream Sediment Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-27	ag_t	09/08/93	ND	865.00	µg/kg	RFI-00229	UJ
ST-27	al_t	09/08/93		49600000.00	µg/kg	RFI-00229	
ST-27	as_t	09/08/93		17000.00	µg/kg	RFI-00229	R
ST-27	ba_t	09/08/93		121000.00	µg/kg	RFI-00229	
ST-27	be_t	09/08/93		978.00	µg/kg	RFI-00229	
ST-27	ca_t	09/08/93		7230000.00	µg/kg	RFI-00229	J
ST-27	cd_t	09/08/93		1850.00	µg/kg	RFI-00229	
ST-27	co_t	09/08/93		15900.00	µg/kg	RFI-00229	
ST-27	cr_t	09/08/93		26700.00	µg/kg	RFI-00229	
ST-27	cu_t	09/08/93		38800.00	µg/kg	RFI-00229	
ST-27	fe_t	09/08/93		36000000.00	µg/kg	RFI-00229	J
ST-27	hg_t	09/08/93	ND	223.00	µg/kg	RFI-00229	
ST-27	k_t	09/08/93		2780000.00	µg/kg	RFI-00229	
ST-27	mg_t	09/08/93		5990000.00	µg/kg	RFI-00229	J
ST-27	mn_t	09/08/93		1220000.00	µg/kg	RFI-00229	J
ST-27	na_t	09/08/93		1280000.00	µg/kg	RFI-00229	J
ST-27	ni_t	09/08/93		35800.00	µg/kg	RFI-00229	
ST-27	pb_t	09/08/93		22700.00	µg/kg	RFI-00229	
ST-27	sb_t	09/08/93	ND	3460.00	µg/kg	RFI-00229	
ST-27	se_t	09/08/93	ND	295.00	µg/kg	RFI-00229	
ST-27	tl_t	09/08/93	ND	295.00	µg/kg	RFI-00229	
ST-27	v_t	09/08/93		27100.00	µg/kg	RFI-00229	
ST-27	zn_t	09/08/93		235000.00	µg/kg	RFI-00229	J
ST-28	ag_t	09/08/93	ND	776.00	µg/kg	RFI-00228	UJ
ST-28	al_t	09/08/93		21600000.00	µg/kg	RFI-00228	
ST-28	as_t	09/08/93		15400.00	µg/kg	RFI-00228	R
ST-28	ba_t	09/08/93		93300.00	µg/kg	RFI-00228	
ST-28	be_t	09/08/93		1010.00	µg/kg	RFI-00228	
ST-28	ca_t	09/08/93		3430000.00	µg/kg	RFI-00228	J
ST-28	cd_t	09/08/93	ND	517.00	µg/kg	RFI-00228	
ST-28	co_t	09/08/93		9510.00	µg/kg	RFI-00228	
ST-28	cr_t	09/08/93		18900.00	µg/kg	RFI-00228	
ST-28	cu_t	09/08/93		29000.00	µg/kg	RFI-00228	
ST-28	fe_t	09/08/93		24500000.00	µg/kg	RFI-00228	J
ST-28	hg_t	09/08/93	ND	178.00	µg/kg	RFI-00228	
ST-28	k_t	09/08/93		2760000.00	µg/kg	RFI-00228	
ST-28	mg_t	09/08/93		3860000.00	µg/kg	RFI-00228	J
ST-28	mn_t	09/08/93		2260000.00	µg/kg	RFI-00228	J
ST-28	na_t	09/08/93		89800.00	µg/kg	RFI-00228	
ST-28	ni_t	09/08/93		26200.00	µg/kg	RFI-00228	

MSU Stream Sediment Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-28	pb_t	09/08/93		22800.00	µg/kg	RFI-00228	
ST-28	sb_t	09/08/93	ND	3100.00	µg/kg	RFI-00228	
ST-28	se_t	09/08/93		635.00	µg/kg	RFI-00228	
ST-28	tl_t	09/08/93	ND	254.00	µg/kg	RFI-00228	
ST-28	v_t	09/08/93		16800.00	µg/kg	RFI-00228	
ST-28	zn_t	09/08/93		102000.00	µg/kg	RFI-00228	J
ST-35	ag_t	09/08/93	ND	839.00	µg/kg	RFI-00226	UJ
ST-35	al_t	09/08/93		1730000.00	µg/kg	RFI-00226	
ST-35	as_t	09/08/93		2230.00	µg/kg	RFI-00226	R
ST-35	ba_t	09/08/93		28100.00	µg/kg	RFI-00226	
ST-35	be_t	09/08/93	ND	280.00	µg/kg	RFI-00226	
ST-35	ca_t	09/08/93		5090000.00	µg/kg	RFI-00226	J
ST-35	cd_t	09/08/93	ND	559.00	µg/kg	RFI-00226	
ST-35	co_t	09/08/93		1700.00	µg/kg	RFI-00226	
ST-35	cr_t	09/08/93		6710.00	µg/kg	RFI-00226	
ST-35	cu_t	09/08/93		5190.00	µg/kg	RFI-00226	
ST-35	fe_t	09/08/93		3130000.00	µg/kg	RFI-00226	J
ST-35	hg_t	09/08/93	ND	217.00	µg/kg	RFI-00226	
ST-35	k_t	09/08/93		401000.00	µg/kg	RFI-00226	
ST-35	mg_t	09/08/93		1360000.00	µg/kg	RFI-00226	J
ST-35	mn_t	09/08/93		746000.00	µg/kg	RFI-00226	J
ST-35	na_t	09/08/93		1950000.00	µg/kg	RFI-00226	J
ST-35	ni_t	09/08/93		3190.00	µg/kg	RFI-00226	
ST-35	pb_t	09/08/93		5290.00	µg/kg	RFI-00226	
ST-35	sb_t	09/08/93	ND	3350.00	µg/kg	RFI-00226	
ST-35	se_t	09/08/93	ND	284.00	µg/kg	RFI-00226	
ST-35	tl_t	09/08/93	ND	284.00	µg/kg	RFI-00226	
ST-35	v_t	09/08/93		2290.00	µg/kg	RFI-00226	
ST-35	zn_t	09/08/93		14700.00	µg/kg	RFI-00226	J
ST-36	ag_t	09/08/93	ND	560.00	µg/kg	RFI-00227	UJ
ST-36	al_t	09/08/93		18800000.00	µg/kg	RFI-00227	
ST-36	as_t	09/08/93		9070.00	µg/kg	RFI-00227	R
ST-36	ba_t	09/08/93		87300.00	µg/kg	RFI-00227	
ST-36	be_t	09/08/93		439.00	µg/kg	RFI-00227	
ST-36	ca_t	09/08/93		7270000.00	µg/kg	RFI-00227	J
ST-36	cd_t	09/08/93		426.00	µg/kg	RFI-00227	
ST-36	co_t	09/08/93		8920.00	µg/kg	RFI-00227	
ST-36	cr_t	09/08/93		32000.00	µg/kg	RFI-00227	
ST-36	cu_t	09/08/93		32700.00	µg/kg	RFI-00227	

MSU Stream Sediment Metals Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-36	fe_t	09/08/93		21300000.00	µg/kg	RFI-00227	J
ST-36	hg_t	09/08/93		5370.00	µg/kg	RFI-00227	
ST-36	k_t	09/08/93		1570000.00	µg/kg	RFI-00227	
ST-36	mg_t	09/08/93		3980000.00	µg/kg	RFI-00227	J
ST-36	mn_t	09/08/93		851000.00	µg/kg	RFI-00227	J
ST-36	na_t	09/08/93		232000.00	µg/kg	RFI-00227	J
ST-36	ni_t	09/08/93		20000.00	µg/kg	RFI-00227	
ST-36	pb_t	09/08/93		62300.00	µg/kg	RFI-00227	
ST-36	sb_t	09/08/93	ND	2240.00	µg/kg	RFI-00227	
ST-36	se_t	09/08/93		377.00	µg/kg	RFI-00227	
ST-36	tl_t	09/08/93	ND	189.00	µg/kg	RFI-00227	
ST-36	v_t	09/08/93		17400.00	µg/kg	RFI-00227	
ST-36	zn_t	09/08/93		900000.00	µg/kg	RFI-00227	J
Background							
ST-26	ag_t	09/08/93	ND	439.00	µg/kg	RFI-00224	UJ
ST-26	al_t	09/08/93		11600000.00	µg/kg	RFI-00224	
ST-26	as_t	09/08/93		15500.00	µg/kg	RFI-00224	R
ST-26	ba_t	09/08/93		72100.00	µg/kg	RFI-00224	
ST-26	be_t	09/08/93		581.00	µg/kg	RFI-00224	
ST-26	ca_t	09/08/93		2210000.00	µg/kg	RFI-00224	J
ST-26	cd_t	09/08/93	ND	293.00	µg/kg	RFI-00224	
ST-26	co_t	09/08/93		10400.00	µg/kg	RFI-00224	
ST-26	cr_t	09/08/93		15600.00	µg/kg	RFI-00224	
ST-26	cu_t	09/08/93		14300.00	µg/kg	RFI-00224	
ST-26	fe_t	09/08/93		19300000.00	µg/kg	RFI-00224	J
ST-26	hg_t	09/08/93	ND	110.00	µg/kg	RFI-00224	
ST-26	k_t	09/08/93		1700000.00	µg/kg	RFI-00224	
ST-26	mg_t	09/08/93		2930000.00	µg/kg	RFI-00224	J
ST-26	mn_t	09/08/93		393000.00	µg/kg	RFI-00224	J
ST-26	na_t	09/08/93		149000.00	µg/kg	RFI-00224	J
ST-26	ni_t	09/08/93		18000.00	µg/kg	RFI-00224	
ST-26	pb_t	09/08/93		22200.00	µg/kg	RFI-00224	
ST-26	sb_t	09/08/93	ND	1760.00	µg/kg	RFI-00224	
ST-26	se_t	09/08/93		155.00	µg/kg	RFI-00224	
ST-26	tl_t	09/08/93	ND	142.00	µg/kg	RFI-00224	
ST-26	v_t	09/08/93		18100.00	µg/kg	RFI-00224	
ST-26	zn_t	09/08/93		345000.00	µg/kg	RFI-00224	J

MSU Stream Sediment Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-35	acnphthe	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	acnphthy	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	anthracn	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bis2ceth	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bis2cexy	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bis2clis	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bis2ehex	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bnz_a_an	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bnz_a_py	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bnz_b_fl	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bnz_k_fl	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	bnzghipr	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	brppeth4	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	butbnzph	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	carbazol	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	chppeth4	09/08/93	ND	524.30	µg/kg	RFI-00195	UJ
ST-35	chrysene	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	clnapht2	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	clphen_2	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dbahanth	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dcb_33	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dibnzfur	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	diclph24	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	diethyph	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dimthp24	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dimthyph	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dinbutph	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dinoctph	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dintrp24	09/08/93	ND	1324.00	µg/kg	RFI-00195	UJ
ST-35	dintrt24	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dintrt26	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	dntrcr46	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	flranthn	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	fluorene	09/08/93	ND	524.30	µg/kg	RFI-00195	UJ
ST-35	hexclbnz	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	hexclbut	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	hexcleth	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	hexclpen	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	hexdcacd	09/08/93		400.00	µg/kg	RFI-00195	J
ST-35	indnpyre	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	isophron	09/08/93	ND	524.30	µg/kg	RFI-00195	

MSU Stream Sediment Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-35	m_dclbnz	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	m_ntranl	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	mthynph2	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	naphthal	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	nntrphny	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	nntrprpy	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	ntrobenz	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	o_cresol	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	o_dclbnz	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	o_ntranl	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	o_ntrphn	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	p_cresol	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	p_dclbnz	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	p_ntranl	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	p_ntrphn	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	pclranil	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	pclrmcrs	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	phenol	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	phnanthr	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	pntclphn	09/08/93	ND	1324.00	µg/kg	RFI-00195	
ST-35	pyrene	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	tcb_124	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	tclph245	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-35	tclph246	09/08/93	ND	524.30	µg/kg	RFI-00195	
ST-36	acnphthe	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	acnphthy	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	anthracn	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bis2ceth	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bis2cexy	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bis2clis	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bis2ehex	09/08/93		127.90	µg/kg	RFI-00194	J
ST-36	bnz_a_an	09/08/93		122.30	µg/kg	RFI-00194	J
ST-36	bnz_a_py	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bnz_b_fl	09/08/93		204.90	µg/kg	RFI-00194	J
ST-36	bnz_k_fl	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	bnzghipr	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	brppeth4	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	butbnzph	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	carbazol	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	chppeth4	09/08/93	ND	831.90	µg/kg	RFI-00194	UJ

MSU Stream Sediment Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-36	chrysene	09/08/93		163.60	µg/kg	RFI-00194	J
ST-36	clnapht2	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	clphen_2	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dbahanth	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dcb_33	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dibnzfur	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	diclph24	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	diethyph	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dimthp24	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dimthyph	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dinbutph	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dinoctph	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dintrp24	09/08/93	ND	2101.00	µg/kg	RFI-00194	UJ
ST-36	dintrt24	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dintrt26	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	dntrcr46	09/08/93	ND	2101.00	µg/kg	RFI-00194	
ST-36	flranthn	09/08/93		433.50	µg/kg	RFI-00194	J
ST-36	fluorene	09/08/93	ND	831.90	µg/kg	RFI-00194	UJ
ST-36	hexclbnz	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	hexclbut	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	hexcleth	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	hexclpen	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	hexdcac9	09/08/93		2000.00	µg/kg	RFI-00194	J
ST-36	hexdcacd	09/08/93		3000.00	µg/kg	RFI-00194	J
ST-36	indnpyre	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	isophron	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	m_dclbnz	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	m_ntranl	09/08/93	ND	2101.00	µg/kg	RFI-00194	
ST-36	mthynph2	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	naphthal	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	nntrphny	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	nntrprpy	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	ntrobenz	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	o_cresol	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	o_dclbnz	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	o_ntranl	09/08/93	ND	2101.00	µg/kg	RFI-00194	
ST-36	o_ntrphn	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	p_cresol	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	p_dclbnz	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	p_ntranl	09/08/93	ND	2101.00	µg/kg	RFI-00194	
ST-36	p_ntrphn	09/08/93	ND	2101.00	µg/kg	RFI-00194	

MSU Stream Sediment Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-36	pclranil	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	pclrmcrs	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	phenol	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	phnanthr	09/08/93		258.10	µg/kg	RFI-00194	J
ST-36	pntclphn	09/08/93	ND	2101.00	µg/kg	RFI-00194	
ST-36	pyrene	09/08/93		287.40	µg/kg	RFI-00194	J
ST-36	tcb_124	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	tclph245	09/08/93	ND	831.90	µg/kg	RFI-00194	
ST-36	tclph246	09/08/93	ND	831.90	µg/kg	RFI-00194	
Background							
ST-26	acnphthe	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	acnphthy	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	anthracn	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bis2ceth	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bis2cexy	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bis2clis	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bis2ehex	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bnz_a_an	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bnz_a_py	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bnz_b_fl	09/08/93		76.20	µg/kg	RFI-00193	J
ST-26	bnz_k_fl	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	bnzghipr	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	brppeth4	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	butbnzph	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	carbazol	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	chppeth4	09/08/93	ND	449.60	µg/kg	RFI-00193	UJ
ST-26	chrysene	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	clnapht2	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	clphen_2	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dbahanth	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dcb_33	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dibnzfur	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	diclph24	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	diethyph	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dimthp24	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dimthyph	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dinbutph	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dinoctph	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dintrp24	09/08/93	ND	1135.00	µg/kg	RFI-00193	UJ

MSU Stream Sediment Semivolatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-26	dintrt24	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dintrt26	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	dntrcr46	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	flranthn	09/08/93		113.90	µg/kg	RFI-00193	J
ST-26	fluorene	09/08/93	ND	449.60	µg/kg	RFI-00193	UJ
ST-26	hexclbnz	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	hexclbut	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	hexcleth	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	hexclpen	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	hexdcacd	09/08/93		400.00	µg/kg	RFI-00193	J
ST-26	indnpyre	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	isophron	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	m_dclbnz	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	m_ntranl	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	mthynph2	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	naphthal	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	nntrphny	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	nntrprpy	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	ntrobenz	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	o_cresol	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	o_dclbnz	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	o_ntranl	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	o_ntrphn	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	p_cresol	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	p_dclbnz	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	p_ntranl	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	p_ntrphn	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	pclranil	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	pclrmcrs	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	phenol	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	phnanthr	09/08/93		51.10	µg/kg	RFI-00193	J
ST-26	pntclphn	09/08/93	ND	1135.00	µg/kg	RFI-00193	
ST-26	pyrene	09/08/93		75.10	µg/kg	RFI-00193	J
ST-26	tcb_124	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	tclph245	09/08/93	ND	449.60	µg/kg	RFI-00193	
ST-26	tclph246	09/08/93	ND	449.60	µg/kg	RFI-00193	

MSU Stream Sediment Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-35	acetone	09/08/93	ND	163.00	µg/kg	RFI-00177	UJ
ST-35	benzene	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	br_meth	09/08/93	ND	162.60	µg/kg	RFI-00177	
ST-35	brdcmeth	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	brform	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	c_13_dcp	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	ccl4	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	cl_benz	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	cl_eth	09/08/93	ND	162.60	µg/kg	RFI-00177	
ST-35	cl_form	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	cl_meth	09/08/93	ND	162.60	µg/kg	RFI-00177	
ST-35	cs2	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	dbc_meth	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	dca_11	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	dca_12	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	dce_11	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	dce_12_t	09/08/93	ND	81.30	µg/kg	RFI-00177	UJ
ST-35	dcp_12	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	eth_benz	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	hexnone2	09/08/93	ND	163.00	µg/kg	RFI-00177	UJ
ST-35	mek	09/08/93	ND	162.60	µg/kg	RFI-00177	
ST-35	mene_cl	09/08/93		131.20	µg/kg	RFI-00177	UJ
ST-35	mibk	09/08/93	ND	162.60	µg/kg	RFI-00177	UJ
ST-35	styrene	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	t_13_dcp	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	tca_111	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	tca_112	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	tca_1122	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	tetcleth	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	toluene	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	tricleth	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-35	vnyl_cl	09/08/93	ND	162.60	µg/kg	RFI-00177	
ST-35	xylene	09/08/93	ND	81.30	µg/kg	RFI-00177	
ST-36	acetone	09/08/93	ND	24.00	µg/kg	RFI-00176	UJ
ST-36	benzene	09/08/93		20.30	µg/kg	RFI-00176	UJ
ST-36	br_meth	09/08/93	ND	24.50	µg/kg	RFI-00176	UJ
ST-36	brdcmeth	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	brform	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	c_13_dcp	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	ccl4	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ

MSU Stream Sediment Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-36	cl_benz	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	cl_eth	09/08/93	ND	24.50	µg/kg	RFI-00176	UJ
ST-36	cl_form	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	cl_meth	09/08/93	ND	24.50	µg/kg	RFI-00176	UJ
ST-36	cs2	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dbc_meth	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dca_11	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dca_12	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dce_11	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dce_12_t	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	dcp_12	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	eth_benz	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	hexnone2	09/08/93	ND	24.00	µg/kg	RFI-00176	R
ST-36	mek	09/08/93	ND	24.50	µg/kg	RFI-00176	UJ
ST-36	mene_cl	09/08/93		30.50	µg/kg	RFI-00176	UJ
ST-36	mibk	09/08/93	ND	24.50	µg/kg	RFI-00176	R
ST-36	styrene	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	t_13_dcp	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	tca_111	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	tca_112	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	tca_1122	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	tetcleth	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	toluene	09/08/93	ND	12.20	µg/kg	RFI-00176	R
ST-36	tricleth	09/08/93	ND	12.20	µg/kg	RFI-00176	UJ
ST-36	vnyl_cl	09/08/93	ND	24.50	µg/kg	RFI-00176	UJ
ST-36	xylene	09/08/93	ND	12.20	µg/kg	RFI-00176	R
Background							
ST-26	acetone	09/08/93		31.00	µg/kg	RFI-00175	J
ST-26	benzene	09/08/93		3.00	µg/kg	RFI-00175	UJ
ST-26	br_meth	09/08/93	ND	13.40	µg/kg	RFI-00175	
ST-26	brdcmeth	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	brform	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	c_13_dcp	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	ccl4	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	cl_benz	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	cl_eth	09/08/93	ND	13.40	µg/kg	RFI-00175	
ST-26	cl_form	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	cl_meth	09/08/93	ND	13.40	µg/kg	RFI-00175	
ST-26	cs2	09/08/93	ND	6.70	µg/kg	RFI-00175	

MSU Stream Sediment Volatiles Data

Location	Parameter	Samp_Date		Result	Units	Sample_ID	Flags
ST-26	dbc_meth	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	dca_11	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	dca_12	09/08/93		6.80	µg/kg	RFI-00175	
ST-26	dce_11	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	dce_12_t	09/08/93	ND	6.70	µg/kg	RFI-00175	UJ
ST-26	dcp_12	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	eth_benz	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	hexnone2	09/08/93	ND	13.00	µg/kg	RFI-00175	UJ
ST-26	mek	09/08/93	ND	13.40	µg/kg	RFI-00175	
ST-26	mene_cl	09/08/93		14.50	µg/kg	RFI-00175	UJ
ST-26	mibk	09/08/93	ND	13.40	µg/kg	RFI-00175	UJ
ST-26	styrene	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	t_13_dcp	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	tca_111	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	tca_112	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	tca_1122	09/08/93		1.50	µg/kg	RFI-00175	J
ST-26	tetcleth	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	toluene	09/08/93		600.00	µg/kg	RFI-00193	R
ST-26	toluene	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	tricleth	09/08/93	ND	6.70	µg/kg	RFI-00175	
ST-26	vnyl_cl	09/08/93	ND	13.40	µg/kg	RFI-00175	
ST-26	xylene	09/08/93		1.70	µg/kg	RFI-00175	J